ISSN 0049-8122

World Medical Journal

Official Journal of The World Medical Association, Inc. Nr. 1, January 2020 vol. 66

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Official Journal of The World Medical Association

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Publisher
Medicīnas apgāds, Ltd
Skolas street 3, Riga, Latvia.

ISSN: 2256-0580

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Editorial

A low dose of any chemical compound may be virtually harmless, while its higher dose may cause diseases, but the highest dose may turn into a deadly poison (there are exceptions – even the smallest drop of hydrocyanic acid and some other chemicals used in warfare is deadly). And too large a dose of a chemical compound is a global poison for our planet. This idea has already been known since the time of Hippocrates because the Greek word "pharmakon" means either 'medicine' or 'poison' depending on the context. The father of toxicology, Swiss doctor and alchemist Paracelsus (1493-1541), said, "The dose makes it clear that a thing is not a poison."

A swallowed tablet is medicine, but exaggerated dosing of medicines mean poisoning. Discharge in Asian rivers of substances from chemical plants manufacturing pharmaceutical raw material due to insufficient wastewater treatment means an ocean poisoned with biologically active substances. However, the raw materials of these medicines are manufactured in Asia exactly because of their lower cost and lower environmental standards there. The chemical industry and pharmaceutical industry are often in the hands of one business group. The chemical structure of some consumer chemicals and pesticides is similar to that of synthetic female sex hormones, while part of them – to modern antibiotics. These pesticides are ruthlessly sprinkled on the fields of the globe. In the world, the production of chemicals has doubled since 2000, and man depends on it more than ever before.

It is similar with global warming – a hot day usually means switching on air conditioners on this planet. A heatwave means the deaths of patients with chronic cardiovascular diseases. Global warming means new infectious diseases, injuries

caused by catastrophic floods and hurricanes, psychosomatic diseases. Global challenges can only be tackled by reducing environmental poisoning with pesticides, fertilizers and consumer chemicals, greenhouse gas emissions, deforestation, cleaning the ocean of plastic and implementing other planet rescue programmes.

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

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Interview with Miguel Roberto Jorge, President of the World Medical Association by WMJ Editor Peteris Apinis

Miguel Roberto Jorge

Jorge: Peteris, An initial suggestion: ask someone to review the English language in your questions. I believe they can be improved. And I delete a phrase in your question number 3 not because of the language but because I do not think it was correct.

Apinis: You are a physician known worldwide and a leader among psychiatrists. Could you comment on whether doctors in the world are burned out? Are doctors more threatened by anxiety and depression than other people? Is it true that doctors in certain professions (such as anesthesiologists and psychiatrists) are more at risk of suicide than people of other professions? How can we help doctors in the world to feel appreciated and reduce the risk of burnout?

Jorge: There are studies indicating a high prevalence of burnout among physicians worldwide even considering that burnout is not equally distributed among them. Providing medical care usually in difficult circumstances exposes physicians to continuous stress at work and burnout is one of the consequences of this kind of situation. On regards of anxiety and depression, some data suggest that physicians do not present more depression than other people but the rate of suicides among physicians is higher than in the general population and, again, the distribution of suicide rates among different medical specialties is not equal. In my personal opinion, the best way for a physician to feel appreciation and reduce the risk of burnout is to dedicate to build a good relation with patients and share with them the power to take decisions on treatment alternatives.

Apinis: We see a new trend in world politics – doctors are undervalued. The global trend is growing: doctors' earnings are declining against average earnings in the country. Politicians and financiers, meanwhile, talk publicly that preparing doctors is too expensive, that universal health coverage should be cheaper to have health specialists. How can we build the prestige of our global profession and restore the remuneration?

Jorge: I can identify different situations in your question. Nowadays, compared to past times, medical doctors are given less value and I believe the dehumanization of the medical practice has contributed to this situation. Physicians not always have enough time to dedicate themselves to build a good physician-patient relationship that takes the individuality of each patient in consideration. And even when they have that time, they are more prone to pay attention to lab exams than to listen to the person they have in front. I do not know if just earnings of medical doctors are declining but I believe the reasons for that are multiple and linked to profound changes in the work market everywhere in the globe. To prepare good professionals, in any area of work, deserves meaningful investments. And I do not believe that to prepare good primary care physicians will cost less than to train a good specialist. Any system of care, and particularly those under the Universal Health Coverage, requires good primary care physicians as well as good specialists.

Apinis: In Tbilisi, the WMA accepted a declaration on euthanasia. In this declaration, the WMA condemned euthanasia and assisted suicide. As physicians, they can't and don't want to perform euthanasia or assisted suicide. However, surveys show that physicians as patients would like to shorten their lives when they encounter major physical and mental health problems. These are doctors as patients who are most likely to refuse complicated and excessive treatment if it can't significantly prolong survival and improve the quality of life. How would you comment on a situation where a doctor, as a patient, requires euthanasia or assisted suicide?

Jorge: Indeed, the WMA took a very clear position opposing physician assisted suicide and euthanasia. We think that physicians should not involve in such practices. We want our patients to be sure that we value their lives and that we are there to protect and to help them even in very difficult situations. Physicians, when they become patients, are patients like any other person. There is no different ethics for physicians being patients. But the same is also true as for any other person: we should abstain from futile and undesired treatment, we must respect a demand for ending treatment and we have to give comfort and to alleviate pain.

Apinis: Every doctor turns into a patient sooner or later. Shouldn't we be more open to helping our sick colleagues? Shouldn't we find a global approach to assisting sick doctors?

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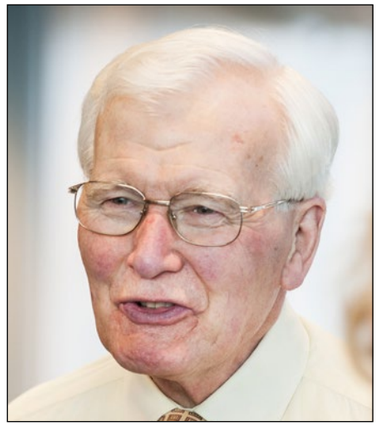
As said before, when physicians become a patient, they act as any other patient. So, medical doctors need to treat them as any other patient, with courtesy, empathy, compassion, and respect. There is not other global approach than to treat well every patient we can have, being them physicians or not. But the attending physician needs to consider the possibility of facing colleagues as more difficult patients to treat.

Apinis:World experience today shows that these are doctors who most energetically and honestly speak about the climate crisis and pollution of the planet, protest against burning of forests, against the reduction of biodiversity on the planet. What are you going to do, as President of the World Medical Association, in the fight for the well-being of our planet?

Jorge: The World Medical Association counts for many years with an Environmental Caucus that meets yearly when the WMA has its General Assembly. The WMA has been producing a series of policies dealing with themes of interest to the environment with recommendations to be followed by physicians around the globe. So, as the current WMA President, I will continue to develop activities as the leaders who came before me in highlighting the importance of fighting against any situation that can decrease the world health levels.

Interview with Dr. Robert Twycross, DM Oxon, FRCP, FRCR, Emeritus Clinical Reader in Palliative Medicine, Oxford University, Oxford, UK by WMJ Editor Peteris Apinis



Robert Twycross

Apinis: The WMA adopted Declaration on Euthanasia in October. In the world, there is often sought interrelation between the last weeks of life under the care of a palliative medicine specialist and the possibility of ending life through assisted suicide or euthanasia. Could you comment on this relationship from your viewpoint?

Twycross: I am aware that in countries where euthanasia and/or assisted suicide (EAS) are legal options there are palliative care services that have integrated EAS with palliative care. However, for me, EAS and palliative care are mutually exclusive philosophies. Expecting doctors to switch from one to the other is an expectation too far. Further, palliative care specialists know that almost all patients who begin by asking for EAS change their mind when adequately supported by palliative care. What of those who do not? In my opinion, it is perfectly consistent to argue that, ethically speaking, EAS might be permissible in some extreme cases but that it would be unwise to change the law. As at present, it could be better to allow hard cases to be taken care of by various expedients than to introduce new legislation that would inevitably become too permissive as has happened, for example, in both the Netherlands and Belgium.

However, if the law were to be changed, there is no reason why doctors and nurses should be involved. A separate service staffed by registered individuals able to prescribe or administer a single lethal overdose for a patient who fulfilled the legal criteria could be set up and monitored. Any EAS law is likely to lead to a negative change in the way that disability and dependency are viewed by society generally – as increasingly financially burdensome. Indeed, it is for this reason that most disabled people are strongly opposed to any liberalisation of the law.

Apinis: Every doctor becomes a patient sooner or later. We know that medical doctors are more open to shorten their lives when severe physical or mental health problems arise. Does a doctor as a palliative patient differ from other palliative patients and how is it to work with a doctor as a palliative patient?

Twycross: It is harder caring for medical colleagues – it is too easy to become emotionally over-involved – but, in 30 years, only one doctor-patient unwaveringly wanted to pursue EAS. This was because of existential distress, not for unrelieved physical symptoms. Indeed, despair is the commonest reason for a consistent desire for EAS. Even in such cases, given adequate

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support (including appropriate palliative psychotherapy), there is often resolution. The question remains: if EAS was permitted, how long ought one to work for resolution before concluding that the distress is definitely intractable?

Apinis: Three concepts – care, rehabilitation and palliative care – are often mixed up [in the whole world]. By care, we understand long-term care services for patients whose functioning restrictions have stabilized so far that further improvement is unlikely to occur. By rehabilitation, we understand a set of measures to improve the functioning of patients with at least six-month potential survival, but by palliative care – individual services for people with very poor treatment forecasts and survival. Is there any tendency for these different types of care to overlap? Is there a place for rehabilitation in palliative care? Palliative care, in particular hospice care, should be distinguished as the one the provision of which must not be a source of profit for the organisation concerned.

Twycross: All definitions of palliative care have fluffy boundaries. Fifty years ago, it was largely limited to comfort care at the end of life. Since then the scope of palliative care has expanded considerably, and probably can best be described as 'care beyond cure'. It is holistic (addressing physical, psychological, social/family, and spiritual/existential concerns); focused on quality of life (but can be provided in tandem with life-prolonging treatments); based on need (not limited by diagnosis or prognosis); applicable across all age groups; and ideally provided by a multidisciplinary healthcare team. In other words: humane care for human beings, not mechanical care for human machines.

However, to a certain extent, palliative care tends to fill gaps in the provision for long-term care. For example, in the UK in the 1980s and 1990s, many palliative care services established lymphoedema clinics, caring for those with congenital lymphoedema as well as patients with cancer (cured or end-stage). In Moldova, the Angelus Hospice in Chisinau is the only service in the country offering ostomy care; and, in Moscow, long-term inpatient post-stroke and long-term inpatient ventilation care have been integrated into palliative care.

Rehabilitation – helping someone to achieve their maximum potential in any of the domains of personhood – is integral to palliative care. With the relief of pain and other distressing symptoms, adequate sleep and gentle encouragement, many palliative care patients improve physically, sometimes dramatically. Of course, sooner or later, there will come a time when physical improvement is no longer possible. This is the time when the challenge for many people is to change from being a 'human-doing' to a 'human-being' sustained within the embrace of supportive loving relationships.

The norm worldwide is for palliative and hospice care to be free of charge, typically funded partly by government and partly with charitable monies. In the USA two thirds of hospices are 'for profit'. This immediately introduces a conflict of interest with an inevitable focus on reducing costs and maximizing profit for the shareholders and owners rather than there being a single-minded focus on quality of care. Ultimately, this cannot be a good thing, and should definitely be discouraged.

Apinis: Palliative care is not a priority in many countries of the world, politicians often forget about it. Universal health coverage does not really provide for palliative care either. However, the lifespan of people extends and the role of palliative care is increasing. How to make world politicians and financiers be aware of the importance of palliative care?

Twycross: At the recent High Level Meeting at the United Nations, palliative care was recognized as an essential component of universal health coverage. However, for palliative care to take root requires a combination of a local charismatic champion (often but not always a doctor) who can inspire fellow healthcare professionals and key supporters within civil society, together with media publicity, and the enthusiastic support of at least one celebrity and several local and national politicians. Even so, there may need to be an element of luck – being in the right place at the right time in a community responsive to your message. Adopting a human rights approach can help but is unlikely to be successful unless associated with an appeal to the emotions.

In addition, palliative care will flourish only if there is a combination of governmental and philanthropic funding. This is true even in the UK. For example, in middle England, one particular comprehensive inpatient and community-based palliative care service costs £8 million per annum, but only some £3 million is provided by the National Health Service, leaving a deficit of £100,000 per week to be secured through fund-raising, donations, legacies, and grants. In the County of Oxford (where I live) with a population of about 700,000, the provision of palliative care costs around £24 million per annum, but statutory funding accounts for only one third of this.

Apinis: Reducing pain in palliative care is a very important aspect. [Isn't it still that doses of medicines are administered to patients with unbearable pain based on the accepted doses of medicines and bureaucratic settings?] From your publications, I have learned that, when used properly, morphine and other powerful opioids are safe – safer than non-steroidal drugs the prescription of which goes unpunished. The use of both types of painkillers is justified on the grounds that the benefits of pain relief are significantly greater than the risk of serious harmful effects. Clinical experience has shown that cancer patients whose pain has been relieved live longer than in case they continued to be exhausted and demoralised by severe pain. Could you comment on how much we need painkillers in palliative treatment?

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Twycross: Medicinal availability of opioids, particularly morphine, has been championed for some 40 years by the World Health Organization, among others. National governments have a dual international legal responsibility both to prevent illicit use of opioid drugs and to ensure that such drugs are readily available and easily accessible for patients in whom other types of analgesic are inadequate. Indeed, the amount of morphine used per capita per annum is used as an approximation of the adequacy of palliative care provision. Thus, in Georgia, if palliative care was available to all who need it, the annual necessary consumption of medicinal morphine is estimated to be 45 kg, but the actual amount currently used is only 8kg. In fact, the proportion of morphine that is used in low and middle income countries is less than 10% of the world's total (with about 85% of the world's population), compared with over 90% in high income countries (with about 15% of the world's population). This is a terrible injustice, and one which the medical profession, actively supported by the national and international Medical Associations, must strive to correct.

However, changing overly restrictive laws is only part of the answer: changing medical and societal cultural attitudes to opioids is equally necessary. For this, centres of excellence must establish and propagate best practice, accepting responsibility for training the trainers to counter the many misconceptions that abound around morphine use. Rightly used, morphine is a remarkably safe analgesic, and may well be safer than traditional non-steroidal anti-inflammatory drugs (also vitally important for cancer pain management). Pain is an antagonist to the respiratory depressant effect of morphine; and psychological dependence ('addiction') is rare when morphine is used within the context of holistic 'whole-person' care. Those who cannot accept this should visit an established palliative care service and meet some of the many patients who have rehabilitated largely because of morphine.

6. There is an ongoing discussion about the use of sedative drugs in palliative care. These medicinal products should be administered in accordance with ethical and pharmacological principles the same way other patients are treated in hospital for acute and chronic diseases. What is the difference between primary or palliative sedation and sedation as a significant treatment for secondary symptoms? How to avoid sedation to hasten death?

Twycross: my review *Reflections on palliative sedation* was published in the on-line journal *Palliative Care: Research and Treatment* earlier this year, and I urge members of WMA to share it with their colleagues [*https://doi.org/10.1177/1178224218823511*]. First, there is a problem with terminology which means that the vast literature on the subject is often difficult to make sense of. The original definition was too wide: it included both intermittent as well as continuous sedation in 'imminently dying' patients. However, it did specifically exclude sedation secondary to justifiable symptom management measures. I agree with you when you say that sedative drugs should always be administered in accordance with ethical and pharmacological principles – justified by need and administered proportionately. In my opinion, the term 'palliative sedation' should be dropped because of ambiguity in its use, and discussion should focus specifically on continuous deep sedation (CDS) until death in dying patients. CDS is clearly ethically challenging because it ends a patient's biographical (social) life and, if truly deep (no response to noxious stimuli), will shorten biological life because the negative impact on the brainstem will lead to cardiorespiratory failure. Thus, CDS must be viewed as an extra-ordinary 'last resort' measure, and should never be seen as the default position for terminal distress. In extreme circumstances, I imagine most doctors would accept that it is ethically acceptable to shorten survival by a few hours, or maybe even by a few days. However, when continuous sedation continues beyond this, it is tantamount to 'slow euthanasia'.

Regrettably, there is plenty of evidence that the sedation is not always proportionate. Further, in the Netherlands and Belgium for example, CDS is sometimes used as a proxy for EAS because it is more straightforward in terms of implementation, documentation, and external monitoring. In France, CDS is now a legal right for terminally ill patients should they request it on the grounds of unbearable suffering, and the activists who campaigned for this regard it as substitute for EAS.

Apinis: What should the WMA and national medical associations do to teach their doctors to improve their respective knowledge, and their national politicians and financiers that they should invest in hospice and palliative care?

Twycross: Fortunately, palliative care does now have greater global visibility than 30–40 years ago. Every little helps; and hopefully the recent Scientific Session on palliative care at the Annual Assembly of the WMA will lead to several delegates from 'palliative care poor countries' returning home determined to move things forward. Guidance is available through such organizations as the International Association for Hospice and Palliative Care and the Worldwide Hospice and Palliative Care Alliance, and regional bodies such as the European Association for Palliative Care.

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Interview with Mari Michinaga, Vice-Chairperson of Council of the World Medical Association by WMJ Editor Peteris Apinis

Mari Michinaga

Apinis: Japan is among the top countries in the world as to low infant mortality rate and the highest average life expectancy. What is the contribution of the Japan Medical Association in this area?

Michinaga: In Japan, maternal and child health measures that seamlessly offer support from pregnancy to childcare based on health checkups for expectant and nursing mothers and infants and Maternal and Child Health Notebooks are well established. This background leads to our globally high level of maternal and child health, which further leads to low infant mortality rate.

Recognizing the importance of the roles of physicians and medical associations in promoting the establishment of medical, health, and welfare environments for the mother and child and supporting the healthy mental/physical development of children who will lead our next generations, the Japan Medical Association (JMA) proposed the JMA Declaration on Child Support concerning pregnancy, childbirth, and childcare in May 2006.

The Declaration states the following:

- Support those who wish to become pregnant
- Enhance medical environment for safer pregnancy and childbirth
- Ensure social environment for satisfying (fulfilling, comfortable) pregnancy and childbirth
- Enhance medical environment where children can comfortably grow up
- Ensure social environment for childcare
- Enhance school health
- Support children with disabilities/difficulties
- Advocate various measures for children and child support to government officials and others involved

It is worth noting that The Basic Law for Child and Maternal Health and Child Development was enacted in December 2018 because of outreach activities by the JMA and others.

The Basic Law clearly states that the national and local governments and other organizations involved are responsible for implementing necessary measures.

Under the public health insurance program delivering Universal Health Coverage in Japan, community planning is underway wherein *kakaritsuke* physicians play the main role. Its core is the collaboration of medical and long-term care through the Community-based Integrated Care System model; moreover, efforts for prevention and healthy living for local residents are underway.

Apinis: In Japan, the proportion of old people is increasing. There is rising incidence of chronic diseases. The role of preventive medicine is growing in the Japanese health care. Japan focuses on the extension of healthy life expectancy. Please tell us about the performance of the Japan Medical Association in this area.

Michinaga: The public health check-up program in Japan is well established from infancy to elderly, but the program is not systematized. The JMA is proposing the necessity of the systems as life-long health services, In order to contribute to lifelong health management for each individual citizen, the data obtained from health check-ups should be centralized and managed under a strict privacy protection.

In addition, the Japan Health Conference was launched in 2015, with the JMA President and Head of the Japan Chamber of Commerce and Industry in joint representation roles.

The Conference is a place for leaders of the business community, healthcare organizations, local governments, and others involved to work together to extend healthy life expectancy.

Apinis: You have done a lot to help the victims of the earthquake and nuclear disaster. Could you describe the situation in these areas at present?

Michinaga: In the Great East Japan Earthquake of March 2011, the JMA organized the Japan Medical Association Team (JMAT) – consisting of the members of all prefectural medical associations, excluding the four that suffered major damage – and provided medical assistance in the affected areas.

This experience has been applied further in subsequent medical assistance activities in

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major natural disasters, such as earthquakes, major typhoons, and torrential rains.

The JMA is also planning various efforts within the Confederation of Medical Associations in Asia and Oceania (CMAAO) region as the World Disaster Medicine Platform plan, and an event to mark the launch of the platform is scheduled for May 2020.

The JMA will be promoting the activity to extend this plan to other WMA regions as well.

Apinis: You have become the WMA Vice-Chairperson of the Council. What are your successes, reflections and conclusions?

Michinaga: In June 2019, the Health Professional Meeting (H20) 2019, co-hosted by the WMA and JMA, was held in Tokyo, Japan. As the vice-chair of the WMA Council, I served as a moderator for the entire meeting and announced the adoption of the Memorandum of Tokyo on Universal Health Coverage and Medical Professions with the Council chair. I also prepared its report and submitted it to the WMJ.

In addition, the JMA and the International College of Person-centered Medicine co-hosted the 7th International Congress of Person-Centered Medicine on the theme "Work-Life Balance: Challenges and Solutions", featuring physician burnout and work style reforms (November 2019). There, I chaired some sessions in which the WMA president, council members, and immediate past/former presidents participated.

Furthermore, at the CMAAO General Assembly in Goa in September 2019, I gave a report on WMA meetings and related events to CMAAO, which is positioned as a WMA regional conference with the membership of 19 National Medical Associations in Asia-Oceania and to which I serve as the Secretary General.

Apinis: You are the editor-in-chief of the Japanese Medical Journal. What is discussed and advised by the Journal, and how does it help in the work of Japanese doctors?

Michinaga: I should note that I am the Associate Editor of the JMA Journal, not the Editor-in-Chief. The JMA Journal accepts a wide range of research papers in all fields of medicine including clinical medicine, basic medicine, and public health, as well as the submission on heathcare policy and opinions. Its purpose is to develop global and broad perspectives and grow into a widely shared journal in the international community by collecting excellent study results from around the world. The JMA Journal is intended to serve as a powerful media particularly for Japanese physicians and medical researchers to speak out about their achievements to the international community. Its impact factor needs to be improved to reach these goals.

The publication of this type of comprehensive English medical Journal is the first challenge in Japan. The JMA Journal is expected to contribute to the enhancement of medicine and the improvement of healthcare quality on a global scale by being read and cited by many readers.

Apinis: Could you recommend good articles of Japanese authors for the WMJ?

Michinaga: It seems to us that the WMJ would merit to have in every number an article by some Japanese doctor presenting a global view.

I recommend the following Japanese doctors as authors for the WMJ:

- Dr. Shigeru Suganami, President, AMDA (Association of Medical Doctors of Asia) *https://en.amda.or.jp/*
- Dr. Masamine Jimba, Professor, Department of Community and Global Health, Graduate School of Medicine, University of Tokyo
- Dr. Osamu Kunii, Head, Strategy, Investment and Impact Division (SIID)
- The Global Fund to Fight AIDS, Tuberculosis and Malaria
- Dr. Kenji Shibuya, Professor and Director, University Institute for Population Health, King's College London

Apinis: We know that your special interest is medical science. Could you tell us what was essential in medical science in 2019 and what to expect from 2020?

Michinaga: In December 2017, Japan's Prime Minister Shinzo Abe, with world health leaders, supported the promotion of universal health coverage (UHC) at the UHC Forum 2017.

It grew into a global movement and led to the Memorandum of Understanding between the WMA and the WHO in April 2018, establishing their collaboration on UHC. In June 2019, the Health Professional Meeting (H20) 2019 was held as the place to practice their cooperation.

At the G20 Osaka Summit and the Joint Session of Finance and Health Ministers (held at the end of the same month), the importance of strengthening finance in health to promote UHC and the shared understanding for the need of sustainable finance were expressed.

Last September, the United Nations High Level Meeting on UHC was also held for the first time, which raised the interest in UHC promotion and led to concrete efforts for its promotion among nations.

I believe that it was important that these movements of UHC promotion and its acceleration shifted from *theory* and moved into *practice*.

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Report on the Health Professional Meeting (H20) 2019

The Japan Medical Association

The Health Professional Meeting (H20) 2019 was held in Tokyo on June 13-14. The theme of the meeting, jointly hosted by the Japan Medical Association (JMA) and the World Medical Association (WMA), was the Road to Universal Health Coverage (UHC).

In April 2018, JMA President Dr. Yoshitake Yokokura, also the then President of the WMA, concluded a memorandum of understanding (MOU) with WHO Director-General Dr. Tedros Adhanom Ghebreyesus, the purpose of which was to promote UHC and emergency disaster preparedness. Thus, the H20 meeting was organized as an opportunity to expound the implementation of the MOU, focusing on the roles of physicians and medical associations in promoting UHC. Approximately 220 people from 38 countries, including eight countries from the African region, were in attendance.

Opening ceremony

The opening ceremony took place in the presence of Her Imperial Highness the Crown Princess. At the opening of the H20, Dr. Yoshitake Yokokura emphasized the increasing importance of cross-border unity among physicians worldwide, and expressed the desire to witness further UHC progress under "beautiful harmony," which is the meaning of the new imperial era Reiwa. The WMA President Dr. Leonid Eidelman (the immediate past President of the Israeli Medical Association) stated that UHC promotion is a priority for the achievement of the Sustainable Development Goals, a global political objective, by 2030. He also called on the attendees to use this meeting as an opportunity to debate and discuss viable solutions for the further promotion of UHC by strengthening cooperation among the concerned parties in each country.

Subsequently, Her Imperial Highness the Crown Princess delivered a congratulatory message. She referred to the high rates of tuberculosis incidence and infant mortality until the mid-twentieth century in Japan, and to the fact that the Tuberculosis Control Law was enacted and the Mother and Child Health Handbooks were introduced in order to improve the situation. She appreciated that the realization of Universal Health Insurance in 1961 facilitated great improvements in living conditions in Japan. She also lauded the efforts of health professionals in various organizations, including the JMA, in supporting the health of all Japanese people against the population aging. In closing, she stated, "I wish that your efforts will be fruitful in helping create a world in which all people can enjoy a healthy and happy life."

Japanese Prime Minister Shinzo Abe stated in his video message that the promotion of UHC is an essential element of our society, and appreciated that this meeting was being held in 2019, the year of the Japanese Presidency of the G20 Osaka Summit. He expressed his hopefulness regarding the continued efforts of the concerned parties toward the achievement of UHC.

Keynote addresses

The first keynote speech, titled Health Inequities and Social Determinants of Health, was delivered by Sir Michael Marmot, Professor of Epidemiology, University College London, Past President of the WMA. He highlighted the fact that health is largely affected by social situations, including wealth gaps and poverty. He also pointed out that it is imperative for health professionals to take action to ensure that the global population has access to better health. Health gaps resulting from country-specific inequities in healthcare constitute a social crisis impacting much of the world. Thus, in addition to the promotion of UHC, the following must be ensured: (1) optimal childhood environment, (2) lifelong learning, (3) adequate employment, (4) minimum income necessary for maintaining an acceptable standard of living, and (5) disease prevention. He called on all governments to act to aid people in leading lives of dignity.

In the second speech, titled Toward UHC – What We Need, Dr. Naoko Yamamoto, Assistant Director-General, Universal Health Coverage/Healthier Populations, the WHO, pointed out that the realization of UHC by 2030 would require the following: (1) strong political leadership, (2) infusion of funds into the field of healthcare, (3) fostering of human resources, (4) primary health care (PHC), and (5) development of communities. Then, she enumerated the following expectations from medical associations: (1) participation in various fields beyond healthcare and advocacy and support of activities placing a high value on human health, (2) finding evidence, as well as effective policy formulation and implementation based on the evidence collected, (3) playing a role in cultivating human resources and career path building, (4) improvement of healthcare quality and promotion of people-centered care, (5) contributing to fields that require further research, education, and practice, (6) taking action to manage emerging infectious diseases and disasters, and (7) cooperating and participating in creating an environment where people have basic knowledge of health and make efforts to develop communities that promote and foster healthy living.

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WMA Actualites

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Session 1: Viewpoints on How to Achieve UHC

According to the WHO, half of the world's population still lacks full coverage of essential health services, with about 100 million people being pushed into extreme poverty by having to pay for healthcare. In this session, presentations were made from the viewpoints of patients, international health authorities, and medical associations.

From the perspective of a patient organization, the International Alliance of Patients' Organizations (IAPO), equitable and universal access to quality and affordable medications is indispensable. It was assured that the IAPO is ready to work with the WMA and its members to achieve UHC, placing top priority on patient safety.

Medical professionals play a crucial role in UHC. The expansion and transformation of the health workforce is an investment anticipated to pay a triple dividend: improved health outcomes, enhanced global health security, and economic growth through the creation of employment opportunities. It is necessary to ensure adequate public-sector investment for education and employment of health workers. It is anticipated that medical associations will facilitate governmental development and implementation of robust national health plans and strategies, and aid in the creation of resilient and sustainable healthcare systems.

From the perspective of medical associations, advancing UHC requires addressing the need for an adequate and well-trained workforce, preventive care and health promotion efforts, sustainable health financing mechanisms, and strategic purchasing using public funds. For example, to achieve UHC, the Indian Medical Association provides inputs into health governance and aids in service delivery, particularly in fragile populations. It further advocated that to improve health service delivery the deployment of highly skilled health workers is crucial.

Session 2: Health Security and UHC

Disasters and disease epidemics are major threats to ongoing efforts to achieve UHC. However, once attained, UHC can provide a strong foundation for overcoming such threats. This session addressed two major issues: (1) the potential for controlling health threats to contribute to achieving UHC, (2) how UHC can be a key to overcoming various devastating health threats.

Trust is important for responding to health threats, such as natural disasters and disease epidemics, as it can build resilient social systems bonding individuals, local communities, and countries. It makes a major contribution to overcoming devastating health threats and, thereby, to achieving UHC.

The international community needs to strengthen efforts to support healthcare systems in preparation for crises. UHC is not possible until the right to healthcare is protected. It is necessary to urge those responsible for inflicting conflict and violence to allow for neutral and impartial treatment of all victims. In addition, amidst the global health narrative of achieving UHC, doctors need to facilitate patient-centered discussions. To promote UHC, healthcare should be delivered safely, and criminalizing medical colleagues must be condemned when they provide care to patients.

In Thailand, UHC was successfully implemented nationwide during the 2001-2002 period. This achievement is attributable to the resilience of the health system, which fostered the resilience of other essential systems. The dynamics and interactions of various groups and institutions within and outside the health sector also reportedly contributed to the marked effectiveness of UHC and the resilience of the health system.

Session 3: Political Dimension of UHC/PHC and Role of Medical Professionals

UHC/PHC is more than simply a technical challenge; its progress also depends on the

Yoshitake Yokokura, President of the World Medical Association 2017–2018

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political processes unique to the context of each country and healthcare system. Medical professionals have a crucial role to play in health policy. In this session, discussions focused on the presentations of distinguished speakers from different angles such as the national government, global health academia, and national and world medical associations.

In the case of Lebanon, it was shown that the active involvement of medical professionals contributed to conversion to people-centered healthcare in the PHC network. World health systems are challenged by population aging, chronic diseases, an explosion of health technologies, and globalization. System transformation is required to ensure that no one is left behind.

In the US, whether to continue with or repeal the Affordable Care Act (ACA, widely referred to as "Obamacare") is the major subject in current debates on healthcare reform. The new administration is eager to repeal the ACA, which has led to concerns regarding the erosion of patient protection. The American Medical Association forms a broad alliance that aims to take the necessary actions to protect the interests of patients and their families. An appeal was made for medical associations to engage more actively in the ongoing debate on how to deliver PHC.

To strengthen PHC, which is an essential component of UHC, it is important to achieve sustainable healthcare system finance, invest in efficient PHC, implement performance evaluation and data collection relevant to PHC, and strengthen partnerships among international health institutions. It was also pointed out that the establishment of healthcare systems is the most important element of social common capital, ultimately serving as the foundation of an affluent society.

Session 4: Shared Responsibilities and Individual Obligations toward UHC

In this session, Dr. Yoshitake Yokokura made a speech on the steps necessary for achieving UHC in Japan. In Japan, the provision of health insurance as an essential part of UHC, in which all citizens are covered by insurance, was achieved in 1961. Dr. Yokokura explained that until this achievement, there had been extensive discussions among physicians, medical associations, and governments about the medical practices of physicians and healthcare expenditures, as well as many other relevant factors. Given that Japan is currently facing the challenge of population aging, the national health insurance program must be firmly maintained as the cornerstone of UHC. The JMA expresses its views to the government based on two criteria: does any policy contribute to safe healthcare for the public and does such a policy allow for UHC to be maintained through public health insurance? He concluded by stating that with this in mind, it is important for the JMA to continue making proposals aimed at promoting and maintaining the most appropriate healthcare system in which medical practitioners can provide optimal level of care.

In the subsequent panel discussions among representatives of the government, JMA, WHO, and international organizations, sharing the ongoing global UHC initiatives and approaches, challenges and opportunities for achieving UHC, and a proposal of solutions and actions for promoting UHC were discussed, and various issues impeding the achievement of UHC were highlighted. These issues include shortage of human resources in healthcare, regional issues such as Ebola hemorrhagic fever, differences in health insurance systems across countries, and relationships with patients. In particular, the shortage of human resources was shown to be related to the global shortage of human resources involved in primary care, concentration of human resources in urban areas that are advantageous in terms of pay and education, and the trend of medical students from developing countries sent to developed countries for educational purposes not returning home. Thus, the problem is not only of absolute numbers but also uneven distribution of resources. Further, the importance of trusting relationships between healthcare providers and receivers was highlighted. Continuing efforts in each country and unity among physicians across countries were identified as essential for solving a variety of problems and ultimately achieving the aim of providing UHC.

Adoption of Memorandum of Tokyo on UHC and the Medical Profession

The H20 adopted the Memorandum of Tokyo on UHC and the Medical Profession that prescribed mainly (1) strengthening the understanding and involvement of UHC and primary care, (2) designing long-term national policies aimed at achieving UHC, and (3) defining the roles of physicians and medical associations and formulating proposals relevant to governmental policies and to all aspects of society.

This memorandum calls on physicians and their medical associations worldwide to play a profound role in the advocacy for and achievement of UHC. In addition, it expresses hope that the G20 Summit will focus on pursuing sustainable investments in the healthcare systems of not only the G20 countries but also other economies where healthcare system investments are still insufficient.

Memorandum of Tokyo on Universal Health Coverage and the Medical Profession
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The FCTC and Tobacco Industry

Ruth T. Lee

Introduction

Unanimously adopted by the World Health Assembly in 2003, the Framework Convention on Tobacco Control (FCTC) is a landmark instrument due to its multifaceted international legal approach [3; 20]. At that point, the FCTC had been a decade in the making. It seeks to address tobacco's deadly effect on public health, as it prematurely kills between 5–6 million people each year [8]. It may increase to killing more than 8 million people per year by 2030 if current trends continue, with 80% of premature deaths occurring in low- and middle-income countries (LMICs) [9].

The FCTC uses six evidence-based strategies, contained in the acronym MPOWER, to reduce tobacco use [11]:

- Monitoring tobacco use and tobacco control policies
- Protecting people from dangers of tobacco smoke
- Offering help to quit tobacco
- Warning the public about the dangers of tobacco
- Enforcing bans on tobacco advertising, promotion, and sponsorship
- Raising tobacco taxes

The FCTC has contributed to an overall decrease in smoking prevalence [6]. Notably, countries that have higher MPOWER composite scores see a greater decrease in current tobacco smoking [19].

Using the FCTC as a guiding document, many countries, such as Spain and Kenya, have created national coordination strategies that adopt a multi-sectoral approach to control tobacco [6; 9]. There has been substantial progress in FCTC articles that address the packaging of tobacco products, protection from exposure to tobacco smoke, public awareness and education, and the reporting and exchange of information [6; 9]. There has been some progress in articles that address regulations on taxes, advertising, sponsorship, illicit trade, and research [6; 9]. While not as significant, there has also been progress in articles that address environmental protection, liability, and economically viable alternatives for farmers who grow tobacco [6; 9].

Successful implementation of the FCTC is supported by a variety of factors. A crucial element is a stable, effective political system with a national tobacco control plan and the capabilities to successfully enforce tobacco-control policies [9; 15; 16]. Other beneficial factors include having accountability across stakeholders, including NGOs, and having higher levels of FCTC implementation, such as having mandated graphic warning labels (GWLs) on tobacco packaging [10; 12].

There are also many factors that impede FCTC adoption and implementation. The global tobacco industry is a hugely important obstructing factor, as will be discussed later. Other factors include smoking-accepting cultures [23]; ineffective implementation of existing guidelines [9; 13]; illicit trade [18]; lack of stakeholder involvement [6; 9; 11]; lack of a multisectoral approach [6; 17; 25]; and lack of sufficient resources, capacity, and support, especially for LMICs [6; 9; 14; 17]. In addition, not enough special action has been made for vulnerable or disadvantaged groups, such as youth, which the tobacco industry targets [6].

Møller's Memo

On June 28, 2019, Michael Møller, the outgoing director of the UN Office at Geneva, raised skepticism against the tobacco-industry ban imposed by the FCTC by writing a memo directed to UN Secretary General António Guterres. In this memo, he proposes that engaging the tobacco industry in discussions may help better achieve the 2030 SDGs for a "more nuanced approach", since "businesses which are legitimate enough to pay taxes to governments should also be legitimate enough to participate in discussions concerning joint efforts to minimize health risks and address other problems of a common nature" (memo).

While this memo is worthy of consideration as a "think piece" (foreign policy article), its purpose as suggested by Møller's chief of staff, David Chikvaidze, is clear – the UN should not engage the tobacco industry in matters relating to tobacco control.

Evidence of TII

A substantial reason is the evident history of persistent tobacco industry interference (TII), which has been recognized as the most important barrier against FCTC implementation [2; 6]. Investigative reports into TII have shown that the industry views the WHO as an enemy and has paid consultants to discredit key individuals and the WHO, with a key strategy to "contain,

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neutralize, and reorient WHO" (as quoted in 10) away from tobacco control and other NCDs.

The tobacco 'big five' – Philip Morris International, British American Tobacco, Imperial Brands, Japan Tobacco International, and China National Tobacco Company – has substantive economic power, with revenues of one of these companies itself matching the GDPs of countries like Morocco and Ecuador [10]. Their economic leverage and financial interests have caused them to interfere with tobacco control by lobbying governments and advocating for regulations concerning looser advertising restrictions, voluntary warning labels, and lower taxes under a guise of 'social responsibility' for the public interest [6; 12]. This is apparent in the issue of illicit tobacco trade, which has been used by tobacco industry – even though research has shown that the major multinational tobacco companies themselves have been involved in tobacco smuggling – to prevent governments without adequate financial capacity to pass stronger tobacco control policies [18]. The industry has been shown to fund surveys of dubious methodology that show associations between tobacco control and large increases in illicit trade – a finding inconsistent with independent research [18]. Tobacco companies also have a history of exaggerating the number of job losses if tobacco control measures are taken, especially on alternative crops to reduce tobacco farming [40]. The reality is that these measures cause no immediate negative impact on tobacco farming or job losses in many countries [40].

The tobacco industry also tries to present itself as a partner to governments. One tactic, demonstrated by a reported visit by a Turkish ambassador to the Philip Morris International Jordan headquarters, is one where the industry advocates for a strategy on combating illicit trade: reducing tobacco prices [18]. Another tactic to present the industry as a partner is by developing and marketing new product strategies of 'reduced-risk products' like heated tobacco products and e-cigarettes [16], which Møller references in his memo as "highly advanced research efforts to minimize the harmful effects of their own products." However, the research is clear that these products are still harmful to health [44].

A significant portion of TII is directed towards warning labels on cigarette packaging. A result, for example, is that between 1992 and 2012, sixteen countries made voluntary agreements with the tobacco industry to put weak, text-only health warning labels (HWLs) on cigarette packages [12]. Philip Morris in 1992 put English-language HWLs on the sides of packages being sold in 49 small, mostly African countries whose native languages are not English [12]. In 2008 in Vietnam, text-only health warnings of "Smoking can cause lung cancer" and "Smoking can cause COPD" covering 30% of the cigarette package became the minimum requirement after successful TII, conducted against the MOH's effort to push through legislation requiring GWLs that would cover 50% of the package [3].

A once-secret document of British American Tobacco revealed that the industry tries to foster government relations and community involvement programs to maintain looser regulations, especially in marketing, with results like a proposed ad ban in Sierra Leone removed from the Cabinet at the voting stage [15]. In Botswana, the industry indirectly advertises their products by printing their tobacco product logos on clothing and even school bags, effectively making children "walking billboards" [15]. The tobacco industry has also gone to court to challenge tobacco control policies, with results like the suspension of the public smoking ban set by the Tobacco Control Act of 2007 in Kenya [15]. Furthermore, the Dutch government has held frequent consultations with the tobacco industry concerning current policies, but there is no transparency and no minutes of these meetings recorded in many cases [24]. Ugandan policymakers have held secret meetings with representatives of British American Tobacco, and there is evidence of bribery from British American Tobacco in East Africa [16].

Conclusion

While Møller's memo raises important points regarding the tobacco industry, history overwhelmingly shows that there is no place for the tobacco industry in discussions of surrounding tobacco control. As private corporations, tobacco companies are naturally interested in financial profit and have been shown to influence policies for their self-interest. Engaging them in tobacco control discussions will only be a slippery slope, undermining the WHO and other UN agencies' goals of protecting human health and environment and promoting sustainable development. The industry has tried to present itself as a partner, especially through promoting smokeless alternatives. But no matter what form it takes, tobacco kills. If the goal truly is to achieve the highest attainable standard of health, then it is plain that the tobacco industry cannot be given a legitimate voice at the table.

References

Memo: https://assets.documentcloud.org/documents/6188745/UN-Secretary-General-Tobacco-Agenda.pdf

Foreign policy article: https://foreignpolicy.com/2019/07/12/document-of-the-week-is-the-u-n-revisiting-the-ban-on-big-tobacco/

1. https://www.reuters.com/investigates/special-report/pmi-who-fctc/
2. http://www.who.int/fctc/cop/cop7/FCTC_COP_7_4_EN.pdf
3. http://apps.who.int/iris/bitstream/handle/10665/44244/9789241563925_eng.pdf;jsessionid=84182F40181983FCD2648F5FCB099B39?sequence=1
4. http://www.who.int/fctc/reporting/summary_2007_document_cop_2_6.pdf
5. http://apps.who.int/iris/bitstream/handle/10665/147117/FCTC_COP6_15-en.pdf?sequence=1&isAllowed=y
6. http://www.who.int/fctc/cop/cop7/FCTC_COP_7_6_EN.pdf
7. http://www.who.int/fctc/reporting/2016_global_progress_report.pdf
8. https://academic.oup.com/eurpub/article/26/1/1/2467458
9. https://tobaccocontrol.bmj.com/content/early/2018/07/25/tobaccocontrol-2018-054374
10. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4884895/pdf/je-26-279.pdf
11. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)62155-8/abstract
12. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3795937/
13. https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-10-1
14. https://www.tobaccofreekids.org/assets/global/pdfs/en/fctc_implementation_guide.pdf
15. https://www.ncbi.nlm.nih.gov/pubmed/22163209
16. https://www.ncbi.nlm.nih.gov/pubmed/28492203
17. https://www.ncbi.nlm.nih.gov/pubmed/26876626
18. https://tobaccocontrol.bmj.com/content/23/4/279
19. https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(17)30045-2/fulltext
20. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4295830/
21. https://www.ncbi.nlm.nih.gov/pubmed/21243194
22. http://www.scielo.org.za/pdf/samj/v105n8/13.pdf
23. https://www.ncbi.nlm.nih.gov/pubmed/27087176
24. https://blogs.bmj.com/tc/2014/09/15/the-netherlands-dutch-government-sued-over-who-fctc-violations/
25. http://fctc.wpengine.com/wp-content/uploads/2015/02/FCTC_Shadow_Report_2014.pdf
26. http://www.itcproject.org/node/70
27. https://tobaccocontrol.bmj.com/content/9/2/129.8
28. https://www.vox.com/2016/6/2/11818692/plain-packaging-policy-us-australia
29. https://academic.oup.com/eurpub/article/26/1/1/2467458
30. https://seatca.org/dmdocuments/SEATCA%20WNTD%202013%20on%20TAPS_new.pdf
31. https://www.indonesia-investments.com/news/todays-headlines/why-indonesia-doesn-t-ratify-who-s-framework-convention-on-tobacco-control/item6932?
32. http://www.academia.edu/17889167/POLITICAL_ECONOMY_ANALYSIS_IN_NON-COMPLIANCE_INDONESIA_TOWARDS_FRAMEWORK_CONVENTION_ON_TOBACCO_CONTROL
33. http://www.archive.healthycaribbean.org/publications/documents/reporte_cmct_ingles_1.pdf
34. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2630219/
35. http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/Aloui-Analysis_of_whole.pdf
36. http://www.freemarketfoundation.com/article-view/feature-article-tobacco-control-in-south-africa-the-fctc-and-lessons-from-other-countries
37. https://escholarship.org/uc/item/09t535s7
38. http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001639
39. https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-015-0139-3
40. http://www.searo.who.int/indonesia/mediacentre/who-urges-indonesiato-ratify-fctc/en/
41. http://www.ghspjournal.org/content/ghsp/5/3/476.full.pdf
42. https://bmjopen.bmj.com/content/bmjopen/3/12/e003982.full.pdf
43. https://tobaccocontrol.bmj.com/content/tobaccocontrol/28/Suppl_2/s113.full.pdf
44. https://www.cancer.net/navigating-cancer-care/prevention-and-healthy-living/stopping-tobacco-use-after-cancer-diagnosis/health-risks-e-cigarettes-smokeless-tobacco-and-waterpipes

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Hearing Screening in Traffic Police Personnel in Multiple Centers in India

Sarika Verma

Mehak Maheshwary

Introduction

Noise pollution is regular exposure of undesirable or hostile sounds at elevated sound levels that can lead to adverse effects in humans or other living organisms. According to WHO guidelines 2018 for average noise exposure, the Guideline Development Group (GDG) strongly recommends reducing noise levels produced by road traffic below 53 decibels (dB), as road traffic noise above this level is associated with adverse health effects. Noise pollution is increasingly becoming a potential hazard to health, physically and psychologically, and affects the general well-being of an individual [1]. It can disturb sleep, cause cardiovascular and psycho physiological effects, reduce performance and provoke annoyance responses and changes in social behavior [2]. The

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first effects of exposure to excess noise are typically an increase in the threshold of hearing (threshold shift), which is defined as a change in hearing thresholds of an average 10 dB or more at 2000, 3000 and 4000 Hz in either ear (NIOSH, 1998). Threshold shift is the precursor of noise induced hearing loss (NIHL), the main outcome of occupational noise. Because hearing impairment is usually gradual, the affected worker will not notice changes in hearing ability until a large threshold shift has occurred. Noise-induced hearing impairment occurs predominantly at higher frequencies (3000–6000 Hz), with the largest effect at 4000 Hz. It is irreversible and increases in severity with continued exposure [3]. According to WHO, disabled hearing loss is defined as "permanent unaided hearing threshold level for the better ear of 41 dB hearing loss or greater for the four frequencies 500, 1000, 2000 and 4000 kHz" [3]. In India, due to urbanization and marked increase in vehicular traffic in the past few years, there has been an exponential rise in the levels of noise pollution generated on road. Since the traffic police personnel have continuous and prolonged exposure to such high-level of noise from these vehicles, they are at a very high risk of developing NIHL. In this study we aim to determine the effect of noise pollution on the hearing of traffic police personnel.

Materials and methods

On the occasion of International Noise Awareness Day 2019, Indian Medical Association's National Initiative for Safe Sound (NISS) carried out a screening study to assess hearing in traffic police personnel in Gurugram, Agra, Nawashahar, Dibrugrah, Guwahati, Panipat, Rewari and Karnal. This cross-sectional study was done to screen the traffic police personnel for hearing loss. Screening was done using Pure Tone Audiometry. The severity of NIHL was based on the WHO grading.

Table 1: Grades of hearing according to WHO

Grade of hearing	Degree of hearing loss
Normal hearing	0–25 dB or loss (better ear)
Mild impairment	26–40 dB (better ear)
Moderate impairment	41–60 dB (better ear)
Severe impairment	61–80 dB (better ear)
Profound impairment	>80 dB (better ear)

The subjects have never used any form of protective equipment to insulate their ears from high traffic noise levels. Police personnel with pre-existing ear disease were excluded from the study.

Results

A total of *588 traffic police personnel were screened* across 8 cities in India using pure tone audiometry. 266 (45.23%) had normal hearing while 320 (54.42%) had some form of sensorineural hearing loss. 2 (0.34%) personnel had conductive hearing loss. Out of the 320 police personnel who had hearing loss, 175 (54.68%) had mild hearing loss, 91(28.43%) had moderate, 25 (7.81%) had severe to profound and 29 (9.06%) had high frequency dip at 4000 Hz.

Table 2: Results of screening showing percentage of police personnel with hearing loss

Total number of police personnel screened	588	
Number of police personnel with normal hearing (<25 dB)	266	45.23%
Number of police personnel with sensorineural hearing loss	320	54.42%
Number of police personnel with conductive hearing loss	2	0.34%

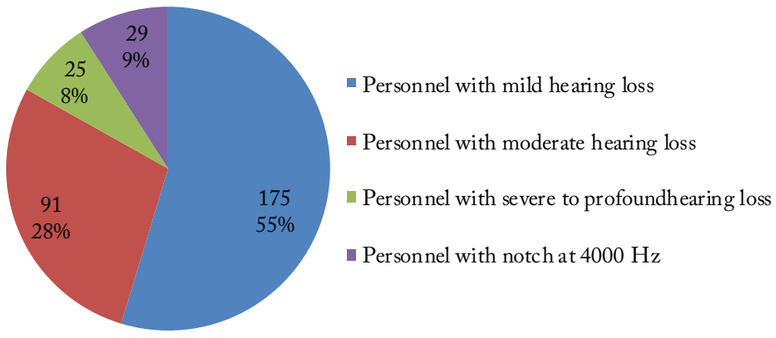

Figure 1: Type of hearing loss in police personnel

Discussion

Noise pollution has several detrimental effects on the human body, the most important being hearing impairment. Noise-induced hearing loss (NIHL) is the second most common cause of sensorineural hearing loss after age induced hearing loss or presbycusis. Sustained exposure to loud noise is associated with damage to outer hair cells of the cochlea in the inner ear. These hair cells are responsible for conversion of sound energy to electrical signals transmitted to the brain. The damage is irreversible. In general, the amount of noise required to cause permanent damage from chronic exposure is anything equivalent to 10 years or more at a level of 85 dB for more than 8 hours a day [4,5]. The maximum hearing loss due to noise exposure is 40 dB at low frequency and 75 dB at high frequencies but when the effects of presbycusis are added, the thresholds may become greater [6,7].

Noise related hearing changes can be categorized into three groups: noise-induced temporary threshold shift (NITTS), noise-induced permanent threshold shift (NIPTS) and acute acoustic trauma. Initial exposure to excessive sound level causes temporary dullness of hearing (temporary threshold shift) which usually recovers within 24 h of exposure [8]. If there is repeated sustained exposure, the threshold shift becomes permanent (permanent threshold shift) due to nerve fiber degeneration. Acute acoustic trauma is defined as sudden exposure to a loud sound like an explosion which can result in permanent hearing loss.

The first signs of NIHL can be observed in the typical 4000-Hz "notch" observed on audiograms, indicating a loss of hearing ability in the middle of the frequency range of human voices [9].

Occupational noise is a widespread risk factor, with strong evidence base linking it to an important health outcome (hearing loss) [3].An assessment of the burden of disease associated with occupational noise can help guide policy and focus research on this problem. This is particularly important in light of the fact that policy and practical measures can be used to reduce exposure to occupational noise [10].

Traffic or vehicular noise is becoming a significant health hazard in India. The traffic police personnel are affected the most due to this increasing noise pollution and are at high risk for noise induced hearing loss. There are very few studies carried out regarding the estimation of auditory effects of noise generated by automobiles among traffic police personnel in India. Moreover, *because of the insidious nature of the disease and lack of awareness, the majority of them are unaware of the effects of noise pollution*. The present study was undertaken to study the effect of noise pollution on the hearing in traffic police personnel across various cities in India.

In this study, 588 police personnel were screened in 8 cities across India. 266(45.23%) had normal hearing while 320(54.42%) had some form of sensorineural hearing loss. The results of this study are in concordance with similar studies done in India where the prevalence of NIHL among Pune traffic police is 81.2%, 66.4% among traffic police personnel in Kathmandu city, 22% in Jammu traffic police personnel, 63.48% in Madurai and 94% in Thoothukudi .

Table 3: Data from individual cities

Sr.No.	Centre	Doctor in charge	Total no. of personnel screened	Number of personnel with normal hearing	Number of personnel with sensorineural hearing loss
1	Gurgaon	Dr. Sarika Verma	124	67 (54.03%)	57 (45.96%)
2	Nawashahar	Dr. Harinder Pal Singh	24	8 (33.33%)	16 (66.66%)
3	Guwahati	Dr. Swagata Khanna	27	9 (33.33%)	18 (66.66%)
4	Dibrugarh	Dr. Swagata Khanna	43	17 (39.53%)	25 (58.13%)
5	Agra	Dr. Rajiv Pachauri	11	5 (45.45%)	5 (45.45%)
6	Rewari	Dr. Adesh Saxena	52	48 (92.31%)	4 (7.69%)
7	Panipat	Dr. Pritam Arora	169	77 (45.56%)	92 (54.43%)
8	Karnal	Dr. Sanjay Khanna	138	35 (25.36%)	103 (74.63%)

The strength of the present study is the data size as well as the study being conducted in different parts of India and hence it gives a larger picture of the effect of noise induced hearing loss among police personnel. All the police personnel are actively working and medically fit and hence it also provides an insight into the burden hearing loss in our country, which by and large, remains undiagnosed or untreated. Since the study was only a one time screening for hearing evaluation, we were not able to measure the exact level of noise exposure. Also age related hearing loss was not taken into account.

According to WHO recommendations

- For average noise exposure, the Guideline Development G roup (GDG) strongly recommends reducing noise levels produced by road traffic below 53 decibels (dB), as road traffic noise above this level is associated with adverse health effects.
- For night noise exposure, the GDG strongly recommends reducing noise levels produced by road traffic during night time below 45 dB, as night-time road traffic noise above this level is associated with adverse effects on sleep.
- To reduce health effects, the GDG strongly recommends that policymakers implement suitable measures to reduce noise exposure from road traffic in the population exposed to levels above the guideline values for average and night noise exposure. For specific interventions, the GDG recommends reducing noise both at the source and on the route between the source and the affected population by changes in infrastructure.

NIHL is a major avoidable cause of permanent hearing impairment. Some effective ways to prevent NIHL in traffic police personnel

- *Strict Implementation of the existing Noise Rules 2000* including fine for unnecessary honking on Indian roads, Implementation of Silent Zones in Towns and Cities and removal of loudspeakers from all places of worship.

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Table 4: Comparison of our study with other studies in India

Title of the study	City/Year of study	Number of traffic police personnel screened	Results
Prevalence of occupational noise induced hearing loss amongst traffic police personnel VK Singh, AK Mehta [11]	Pune (Maharashtra) 1995	421	Total number with hearing loss – 342 (81.2%) Mild hearing loss – 213 (62.3%) Moderate to severe hearing loss – 129 (37.7%)
Prevalence of noise induced hearing loss among traffic police personnel of Kathmandu Metropolitan City Shrestha I, Shrestha BL, Pokharel M [12]	Kathmandu (Nepal) 2011	110	Total number with hearing loss – 73 (66.36%) Mild hearing loss – 57 (51.8%) Moderate hearing loss – 15 (13.6%) Severe hearing loss – 1 (0.9%) 4000 Hz notch – 73 (66.4%)
Pattern of noise induced hearing loss and its relation with duration of exposure in traffic police personnel M. Gupta, V. Khajuria, M. Manhas [13]	Jammu city (Jammu and Kashmir) 2015	150	Total number with hearing loss – 33 (22%)
Prevalence of noise induced hearing loss among police personnel in Madurai city Dhinakaran N, Karthikeyan B. M [14]	Madurai (Tamil Nadu) 2017	241	Total number with hearing loss – 153 (63.48%)
A Study on noise-induced hearing loss of police constables M Senthil Kanitha, C Balasubramanian, Heber Anandan [15]	Thoothukudi (Tamil Nadu) 2018	50	Total number with hearing loss – 94% Mild hearing loss – 26% Moderate hearing loss – 38% Severe hearing loss – 36% 4000 Hz notch – 92%
Effect of road traffic noise on auditory threshold in traffic police personnel KG Venkatappa, V S hankar, Dr. Sparshadeep [16]	Kolar (Karnataka) 2018	30	Total number with hearing loss – 8 (26.66%) Mild hearing loss – 5 Moderate hearing loss – 3
Our Study	Multiple cities across India 2019	450	Total number with hearing loss – 320 (54.42 %) Mild hearing loss – 175 (54.68%) Moderate hearing loss – 91 (28.43%) Severe to profound hearing loss – 25 (7.81%) 4000 Hz notch – 29 (9.06%)

- Use of hearing protective devices such as ear muffs, ear plugs and ear canal caps.
- Periodic health check-ups and hearing assessment of police personnel.
- Duty scheduling or *duty rotation* for exposure limitation.
- Health authorities and NGOs must *create awareness among traffic police personnel about the auditory and non auditory effects of noise* by implementing education and training programmes for traffic police personnel about the auditory and non-auditory effects of noise.
- At policy level, the government should take adequate steps to *reduce the level of the horn from present levels of 90–112dB to 50–65dB*. Efforts should also be made to reduce the engine noise of vehicles towards lowering levels of traffic noise.
- *Noise Mapping of India should be undertaken with urgency* to document the existing noise levels and then address the problem of ambient noise higher than the permissible limits as recommended by the WHO.
- *School text books should educate children about good driving habits including driving without using the horn* except in life threatening situations. The habits of several decades can only be changed through educating the next generation.

Conclusion

As can be seen of this preliminary screening of 588 traffic police personnel, continuous exposure to loud and chronic noise causes sensorineural hearing loss in the long run. 54.42% of those screened had hearing loss. Considering that India has the highest number of SNHL people above the age of 65 years, it is time to put WHO and European Guidelines 2018 into practice along with enforcing Noise Rules 2000. Immediate and urgent steps must be taken to prevent Noise Induced Hearing Loss (NIHL) develop into a serious health issue in India.

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References

1. Goswami S, Nayak SK, Pradhan AC, Dey SK. A study on traffic noise of two campuses of University, Balasore, India. *J Environ Biol.* 2011; 32:105–9.
2. *Noise*. World Health Organization. 2011. [Last accessed on 2012 Aug 13]. Available from: http://www.euro.who.int/en/what-we-do/health-topics/environmentand-health/noise.
3. Concha-Barrientos M, Campbell-Lendrum D, Steenland K. Occupational noise: assessing the burden of disease from work-related hearing impairment at national and local levels. Geneva, World Health Organization, 2004. (*WHO Environmental Burden of Disease Series*, No. 9).
4. Rabinowitz, P. Noise-induced hearing loss. *Am Fam Phys 2000*; 61:2749-56, 2759-60.
5. National Institute of Deafness and Other Communication Disorders (NIDCD). Fact Sheet: Noise-induced hearing loss. *NIH Publication 2007*; 97(4):4233.
6. Kircher DB. Noise-induced hearing loss. *J Occup Environ Med* 2003; 45(6):579-581.
7. Kircher DB, Evenson E, Dobie RA, Rabinowitz PM, Crawford J, Kopke R and Hudson TW. Occupational noise-induced hearing loss. ACOEM Task Force on Occupational Hearing Loss. *J Occup Environ Med 2012*; 54(1):106-108.
8. Venkatappa KG, Shankar V, Annamalai N. Assessment of knowledge, attitude and practices of traffic police personnel regarding the auditory effects of noise. *Indian J Physiol Pharmacol 2012*; 56:69-73.
9. McBride DI, William S. Audiometric notch as a sign of noise induced hearing loss. *Occup Environ Med 2001*;58:46-51.
10. Goelzer B, Hansen CH, Sehrndt GA, eds. *Occupational exposure to noise: evaluation, prevention and control.* Geneva, World Health Organization, and Dortmund/Berlin, the Federal Institute for Occupational Safety and Health.WHO/FIOSH (2001).
11. Singh VK, Mehta AK. Prevalence of occupational noise induced hearing loss amongst traffic police personnel. Indian *J Otolaryngol Head Neck Surg.* 1999;51(2):23–26. doi:10.1007/BF02997985
12. Shrestha I, Shrestha BL, Pokharel M, Amatya RCM, Karki DR. Prevalnace of Noise Induced Hearing Loss among Traffic Police Personnel of Kathmandu Metropolitan City. *Kathmandu Univ Med J 2011*;36(4):274-8
13. Gupta, Mrityunjay & Khajuria, Vijay & Manhas, Monica & Lal Gupta, Kasturi & Singh, Onkar. (2015). Pattern of Noise Induced Hearing Loss and its Relation with Duration of Exposure in Traffic Police Personnel. *Indian Journal of Community Health. 27*. 276-280.
14. Dhinakaran N & Karthikeyan MB. (2017). Prevalence Of Noise Induced Hearing Loss Among Police Personnel In Madurai City. *International Journal of Advanced Research* 5. 410-416. 10.21474/IJAR01/5075.
15. Kanitha MS, Balasubramanian C, Anandan H. A Study on Noise-Induced Hearing Loss of Police Constables. *Int J Sci Stud 2018*; 5(11):122-124.
16. Kavana G Venkatappa, Vinutha Shankar, Sparshadeep EM. (2018). Effect of road traffic noise on auditory threshold in traffic police personnel. *Int. J. Curr. Res. Biol. Med.* 3(6): 12-17.

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Achieving Universal Health Coverage and Sustainable Development Goals: The Global Fund's contribution and my expectation for medical professionals, national medical associations and World Medical Association

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The Global Fund to fight AIDS, Tuberculosis and Malaria (the Global Fund) was invited to H20 Meeting co-hosted by World Medical Association (WMA) and Japan Medical Association (JMA) on June 13 and 14 in Tokyo to present the Global Fund's contribution towards achieving universal health coverage (UHC) and Sustainable Development Goal 3 (SDG 3) "Ensure healthy lives and promote wellbeing for all at all ages".

Based on this presentation, this article describes the role, achievement and challenge of the Global Fund towards UHC and SDG 3, a country's good practice of tremendous progress, and shares my personal expectations for medical professionals, national medical associations, and WMA to achieve global common goals of UHC and SDG 3.

Role of the Global Fund to achieve UHC

Since its inception in 2002, the Global Fund has mobilized financial resources from all over the world and has been supporting more than 140 countries by disbursing more than US$41 billion [1], making it one of the largest financiers or channels of assistance for global health [2].

The Global Fund is called the 21st century partnership organization because relevant key partners such as donor and implement-

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ing governments, UN and international aid organizations, private sector, civil society and affected communities are engaged in and highly committed to the whole processes of the Global Fund to maximize impact, including decision making in the Board and its committees, resource mobilization, strategy development, in-country planning and implementation of the Global Fund-supported programs.

As a result, this Global Fund partnership has brought a drastic progress in scaling up of essential services in the fight against three diseases (Figure 1) and building health systems, which has saved a total of 32 million lives as of the end of 2018 with 56%, 22% and 46% reduction of the number of deaths due to HIV, tuberculosis and malaria respectively since 2002 when nearly 5 million people had died of the three diseases [1].

For example, Rwanda demonstrated a massive scale-up of essential HIV services supported by the Global Fund and partners (Figure 2) and consequently led to an outstanding reduction of AIDS-related mortality (Figure 3) [3]. There was a time when almost none of the HIV infected people in Africa could get access to antiretroviral therapy (ART) while it was available and accessible among those in developed countries. Thus, this is the remarkable result and victory of human beings with collective efforts and shared responsibility.

Without cross-cutting interventions or horizontal approach of health systems it is impossible to control and end major epidemics like AIDS, tuberculosis and malaria. Therefore, the Global Fund has been assisting countries in building resilient and sustainable systems for health (RSSH), and promoting and protecting human rights and gender equality, as two of the four pillars of the Global Fund Strategy for 2017– 2022 and two critical foundations of UHC. Notably, the Global Fund invests more than US$1 billion per year in building RSSH, which is among the largest multilateral financiers in this area, and has supported the low- and middle-income countries in improving procurement and supply chains; strengthening data systems and its use; training health workers; building stronger community responses and systems; and promoting the delivery of more integrated, people-centered health services.

Challenges to Achieve Ending Epidemics

Despite the progresses made, HIV, tuberculosis and malaria still infected more than 230 million people and killed more than 8,000 people daily in the world in 2017, which means that the two-day death toll of three infections is more than the two-year death toll of Ebola outbreaks in 2014–15 [4, 5, 6, 7].

Recognized as the world's unmet agenda and still leading causes of deaths among infections in many countries, the fight against these three diseases are included in SDG 3 as Target 3.3 "By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases."

Each disease in this target has its own globally agreed specific targets such as 95-95-95 by 2030 of Fast-Track Strategy for HIV [8]; reduction in deaths by 90% (95%), and new cases by 80% (90%) by 2030 (2035) compared with 2015 levels for tuberculosis [9]; reduction in mortality and incidence rates by 90% by 2030 for malaria [10].

While these targets are set based on data, global consultations and discussions [8, 9, 10, 11], there are challenges to achieve those targets [12]. Especially, the global target against tuberculosis looks ambitious to reach unless the current global trend of annual 2% reduction of incidence is dramatically geared toward more than 10% reduction (Figure 4). At the current trend of decline in incidence, it will take humanity 130 years to end tuberculosis [13].

Tuberculosis is now the top killer pathogen among infections with 1.6 million deaths and 10 million new cases in 2017, and 36% of those new cases are left "missing"– undetected, untreated or unreported, which leads to ongoing transmission of the disease and the spread of drug-resistant tuberculosis [5].

To break through these challenges, the world is pursuing new scientific knowledge and innovations such as new diagnostics and treatments more effective and efficient to find and treat cases and latent infections, and vaccines and others to prevent infections. Yet, it is also considered possible to bend the curve by optimizing even the currently existing tools and pursuing UHC and social protection [13]. Some counties have shown rapidly bending curves of tuberculosis mortality and morbidity in the past even before effective diagnostics and medications came into existence.

Good Practice of Japan

One of those countries is Japan where tuberculosis killed more than 100,000 people annually before 1950. Tuberculosis was then called "the national disease" as the leading cause of death and accounting for 15% of all deaths [14, 15]. However, Japan demonstrated one of the sharpest declines in tuberculosis mortality in the world from 1950 to 1970 - with mortality reduction of 50% by 1955, 80% by 1960, and 90% by 1970 compared to the mortality in 1950, which brought an average annual reduction of almost 12% in this period [14,15,16] (Figure 5).

What made this happen? Besides economic growth and social development after World War II, several factors were identified as associated with this success, which include strong political commitment and actions, public-private partnership, multisectoral approach and community engagement [14,15].

Political commitment and actions encompass enactment and enforcement of various

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laws and acts such as Health Center Law (enacted in 1947), new Tuberculosis Control Law (enacted in 1951), National Health Insurance Act (enacted in 1958), which enabled rapid scale-up of mass tuberculosis screening by chest X-ray, BCG inoculation, test and treatment with public financial and social protection of tuberculosis patients, which accelerated and finally led to universal health coverage in 1961 in Japan.

Public-private partnership, especially between public health centers (PHC) and private clinics/hospitals facilitated scale-up and quality improvement of diagnosis, treatment and care of tuberculosis patients [17]. Public health centers as local government authorities had substantial contribution to Japan's success in tuberculosis control, especially by overseeing various programs such as mass screening, surveillance, patient registration, and by handling public subsidy of medical expenses for tuberculosis treatments [18]. Each PHC set up Tuberculosis Advisory Committee, which was composed of PHC staff, tuberculosis specialists and physicians recommended by a local medical association, for checking medical records from general physicians, most of whom run a private clinic, and recommending public subsidy to those treatment. This public-private partnership contributed to quality improvement and assurance of tuberculosis control.

Multisectoral approach was also critical success factor for tuberculosis control in Japan.

Under the Tuberculosis Control Law, all the municipalities, schools and private companies were required to engage in tuberculosis mass screening towards the common target and slogan "100% uptake". Public health centers played key roles in driving communities to attend mass tuberculosis screenings towards 100% uptake in close collaboration with local community organizations such as the Anti-Tuberculosis Women's Association. The Japan Anti-tuberculosis Association (JATA) also played an important role in promoting community mobilization and facilitating collaboration between governments, academia and the private sector for effective tuberculosis control [19].

Expectation for Medical Professionals, National Medical Associations and WMA Toward UHC and SDG 3

While medical professionals, national medical associations and WMA are crucial actors on the road toward UHC and SDG 3, they could play more active or even proactive roles in accelerating the efforts for their achievement in many countries. In particular, I would like to highlight the following three roles and expect them to take those in addressing challenges and gearing up toward UHC and SDG 3.

Influencer: UHC requires political commitment from the highest levels, notably for policy-makers to develop and implement policies and regulations that facilitate the movement towards UHC [20] and to raise significant funds that will enable it to happen. Since medical professions and their associations have leadership and political power in many countries, they could serve as influencer to enhance the country's political will and leadership toward UHC and health SDG.

Especially, political will and actions are needed to mobilize domestic resources for financial risk protection and equitable access to essential services. Since only 3% of global health spending occurs in lower- or lower-middle-income countries where 49% of the global populations live (Figure 6) [21, 22], development assistance for health (DAH) by donor countries and aid agencies remains critical for those countries to improve health, which accounts for more than 50% of their health spending in some countries. However, DAH has been staggered at approximately US$39 billion in the past several years (Figure 7)[2] while it had increased 5 times between 1990 and 2010. Therefore, government spending on health is suggested at least 5% of GDP or per capita target of $86 [23,24] to promote universal access to primary care services and realize UHC in low-income countries.

Driver: Medical associations and their members could play a driving role in implementing those policies and strategies toward UHC, especially delivering primary health care and essential services and improving quality of those services at a community level. One of the three dimensions of UHC is population coverage. While monitoring the progress toward UHC, increasing population coverage with essential services is important. Yet at the same time which subpopulations are covered is also critical as the vulnerable and marginalized populations are often left behind and hardly covered. Since the members of medical associations are working close to communities, they are in a good position to listen to and understand the needs of the communities including vulnerable and marginalized populations, and to reach out to them with essential services.

The government and national health professional associations including a medical association need to work together to identify the populations left behind and health services in need, and find the ways to deliver those for achieving UHC.

Facilitator: Leading medical and health field, medical professionals and their association could play more active role in facilitating collaboration and coordination among different health workforce and their associations including nurses, midwife, pharmacists, and community health workers. As shown by an example of Japan and other good practices in the world, achieving UHC requires effective and efficient collaboration among all the stakeholders including public-private partnership and multisectoral collaboration. Medical professionals are usually respected in a community and could take a facilitating role in scaling up of essential health services

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and promoting health-seeking and healthy behavioral changes with various stakeholders in the community including a village mayor, community development workers, school teachers and factory managers. Medical associations could also contribute to empowerment of other health personnel and community resources who could drive primary health care and health activities among populations [25].

The Global Fund's Way forwards

The Global Fund has succeeded in mobilizing US$14.02 billion from over 70 donors including governments, private sector and nongovernment organizations through the 6th Replenishment meeting hosted by French President Macron on 9–10 October 2019 in Lyon, France [26]. The fund will be used for the next three years to support more than 130 countries, whose impact is estimated to save 16 million lives and avert 234 million infections according to the investment case developed with global experts and partners. The fund will be used for strengthening RSSH for achieving UHC with estimation of over US$1 billion per year.

I would like medical professionals to join our efforts for the global common goal of ending epidemics and achieving UHC and SDGs.

References

1. The Global Fund. Results Report 2019. [Cited 2019 Oct 05]. Available from: https://www.theglobalfund.org/en/impact/
2. Institute for Health Metrics and Evaluation, University of Washington. Financing Global Health 2018: Countries and Programs in Transition. [Cited 2019 Oct 05]. Available from: http://www.healthdata.org/sites/default/files/files/policy_report/FGH/2019/FGH_2018_full-report.pdf
3. Nsanzimana S, Prabhu K, McDermott H, Karita E, Forrest JI, Drobac P, et al. Improving health outcomes through concurrent HIV program scale-up and health system development in Rwanda: 20 years of experience. BMC Med. 2015;13:216. doi: 10.1186/s12916-015-0443-z. [Cited 2019 Oct 10]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4564958/pdf/12916_2015_Article_443.pdf
4. UNAIDS. UNAIDS Data 2018. [Cited 2019 Oct 05]. Available from: https://www.unaids.org/sites/default/files/media_asset/unaids-data-2018_en.pdf
5. WHO. Global Tuberculosis Report 2018. [Cited 2019 Oct 05]. Available from: https://www.who.int/tb/publications/global_report/en/
6. WHO. World Malaria Report 2018. [Cited 2019 Oct 05]. Available from: https://www.who.int/malaria/publications/world-malaria-report-2018/en/
7. WHO. Ebola virus disease. [Cited 2019 Oct 05]. Available from: https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease
8. UNAIDS. Fast-Track: ending the AIDS epidemic by 2030. 2014. [Cited 2019 Oct 05]. Available from: https://www.unaids.org/sites/default/files/media_asset/JC2686_WAD2014report_en.pdf
9. WHO. The End TB Strategy: Global strategy and targets for tuberculosis prevention, care and control after 2015. 2015. [Cited 2019 Oct 30]. Available from: https://www.who.int/tb/post2015_strategy/en/
10. WHO. Global technical strategy for malaria, 2016-2030. 2015. [Cited 2019 Oct 10]. Available from: https://www.who.int/malaria/publications/atoz/9789241564991/en/
11. Floyd K, Glaziou P, Houben RMGJ, Sumner T, White RG, Raviglione M. Global tuberculosis targets and milestones set for 2016-2035: definition and rationale. Int J Tuberc Lung Dis. 2018;22(7):723-730. doi: 10.5588/ijtld.17.0835.
12. GBD 2017 SDG Collaborators. Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2018;392(10159):2091-2138. doi:10.1016/S0140-6736(18)32281-5.
13. The Global Fund, WHO, Stop TB Partnership. Joint Initiative "FIND. TREAT. ALL. #ENDTB" [Cited 2019 Oct 10]. Available from: https://www.who.int/tb/joint-initiative/en/
14. Mori T, Ishikawa N. Tuberculosis in Japan before, during, and after World War II. In: Murray JF, Loddenkemper R (eds): Tuberculosis and War. Lessons Learned from World War II. Prog Respir Res. Basel: Karger; 2018. vol 43, p.188-196.
15. Seita A. How Japan had addressed control of tuberculosis: "Think PHC, Do TB" Integration-based scale up of tuberculosis control in Japan. [dissertation], Harvard School of Public Health. [Cited 2019 Oct 05]. Available from: https://cdn1.sph.harvard.edu/wp-content/uploads/sites/114/2012/10/rp217.pdf
16. Mori T. Recent trends in tuberculosis, Japan. Emerg Infect Dis 2000; 6: 566–68.
17. Shimao T. [PECULIARITY OF NATIONAL TUBERCULOSIS PROGRAM, JAPANPublic-Private Mix from the Very Beginning, and Provision of X-ray Apparatus in Most General Practitioner's Clinics]. Kekkaku. 2016;91(2):69-74. Japanese.
18. Katsuda N, Hirosawa T, Reyer JA, Hamajima N. Roles of public health centers (Hokenjo) in tuberculosis control in Japan. Nagoya J Med Sci. 2015;77(1-2):19–28.
19. The Japan Research Institute of Tuberculosis, Japan Anti-tuberculosis Association (JATA). " [Cited 2019 Oct 30]. Available from: https://jata.or.jp/english/
20. WHO. Together on the road to UHC: A Call To Action. 2017. [Cited 2019 Oct 10] Available from: https://www.who.int/universal_health_coverage/road-to-uhc/en/
21. Global Burden of Disease Health Financing Collaborator Network. Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995-2050. Lancet. 2019;393(10187):2233-2260.
22. Dieleman JL, Micah AE, Murray CJL. Global Health Spending and Development Assistance for Health. JAMA. 2019;321(21):2073-2074.
23. Mcintyre D, Meheus F, Røttingen JA. What level of domestic government health expenditure should we aspire to for universal health coverage? Health Econ Policy Law. 2017;12(2):125-137.
24. Mcintyre, D.M., F. Shared Responsibilities for Health: A Coherent Global Framework for Health Financing, in Final Report of the Centre on Global Health Security Working Group on Health Financing. 2014, Chatham House: London, UK. [Cited 2019 Oct 30]. Available from: https://www.chathamhouse.org/sites/default/files/field/field_document/20140521HealthFinancing.pdf
25. Tulenko K, Møgedal S, Afzal MM, Frymus D, Oshin A, Pate M, et al. Community health workers for universal health-care coverage: from fragmentation to synergy. Bull World Health Organ. 2013;91(11):847-52.
26. The Global Fund. Step Up the Fight. 2019. [Cited 2019 Oct 10]. Available from: https://www.theglobalfund.org/en/stepupthefight/

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Short Overview of Developments in Azerbaijan Healthcare Policy and Legislation During Last Decades

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The rapid economy development of the Azerbaijan Republic (AR) in recent years has made it possible to ensure the formation of socially oriented domestic policy, to develop programs aimed at improving health of the population and development of the healthcare system. The level of economic well-being of the country and quality of healthcare system's functioning are interrelated factors that directly determine health of the population. The degree of the healthcare system development, in turn, reflects the socio-economic development of the country. The growing economy made possible modernization of the healthcare system and its harmonization with global trends of developed countries. The modern healthcare system of Azerbaijan is in a transitional period, which is characterized by the reform of healthcare financing, introduction of electronic services and renewal of the insurance system. The reform is based on legislation, which is updated and supplemented in accordance with new needs.

Taking into account the tense internal situation in the country [1] after the collapse of the Soviet Union and restoration of independence, the national leader Heydar Aliyev directed his efforts to ensure development of the Republic through foreign economic relations. A targeted policy of integration into the world community, establishing relations with international structures and aimed at attracting investment and developing the country's economy was based on the "oil strategy" of Heydar Aliyev, which laid the foundation for the country's prosperity. An agreement known as the 1994 Contract of the Century [2] was signed within the framework of the strategy; oil pipelines were commissioned, including the Baku-Tbilisi-Jeyhan pipeline. The strategy ensured social economic development [3], and as a result, the rise of the healthcare sector.

In the first years of the restoration of independence, Azerbaijan sought to actively cooperate with international organizations in order to ensure compliance of domestic policies with global trends. So, one of the tasks of health policy has become and is now cooperation with international organizations such as the United Nations (UN), World Health Organization (WHO), the Council of Europe (CoE) and the European Union (EU). Thus, the Partnership and Cooperation Agreement between the EU and Azerbaijan, signed in 1999, established a number of requirements in the field of social development and health. Subsequently, the Agreement was expanded to the European Neighborhood Policy (ENP). In the framework of the ENP, cooperation covered various areas and was reflected in the Action Plan (AP), which Azerbaijan joined in 2006. The AP included the following tasks: reforming the healthcare system, creating a social policy closer to EU standards, facilitating exchange of new technologies, including e-health.

During Soviet times, Azerbaijan's healthcare was based on all-Union standards; the central leadership directly determined its infrastructure. Accordingly, the standards of domestic health policy were practically absent. The urgent need to improve the social protection of citizens, primarily the healthcare system, is reflected in the domestic policy of the state. As a result, in 1998, by an order of the national leader Heydar Aliyev, the State Commission on Health Care Reforms was created, which developed a document on the reform concept. Fundamental steps on the reformation of the healthcare system included the expansion of medical educational programs, updating medical equipment, monitoring of environmental factors affecting health, and study of healthcare trends in high-income countries.

The key factor determining public health policy and the corresponding programs arising from it is the level of development of medicine and related areas. Only highly effective medical services and the development of medicine can ensure public health,

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which begins with the health of a single person (citizen). Health policy itself may include various directions and fields, such as healthcare, insurance, vaccination, mental health, pharmaceutical, healthy life styles and environmental health policies, including anti-smoking, anti-obesity, reproductive policies, etc. Being complex in nature, it also covers issues of financing, improving legislation, ensuring social justice and implementing many targeted programs to solve various problems in this area. Health policy is multilevel and comprehensive, since decisions made at the state level are passed for execution to separate bodies such as the Ministry of Health and municipalities. The importance in this regard is given to solving the most urgent problems in the country. So, for example, the problem of obesity is not as acute as the problem of thalassemia / hemophilia in Azerbaijan. In this regard, the Cabinet of Ministers of the AR approved the Resolution on the State Program on Hereditary Blood Diseases of Hemophilia and Thalassemia [5] adopted in 2006.

Today, the development concept – Azerbaijan 2020: A Look into the Future – approved by the Decree of the President of Azerbaijan Ilham Aliyev in 2012, defines priorities in state policy and reformation in the field of healthcare, as well as in other areas. Paragraph 7 of the Concept gives priority to "the development of human capital and creation of an effective social security system" [6]. This paragraph defines the goals and objectives in the healthcare system, sets other goals, such as improving social security, developing modern education, developing youth and sports potential, ensuring gender equality and family development.

One of the main tasks in modern healthcare policy is increasing government allocations for the development and modernization in the field of medicine. The public health system in Azerbaijan is financed from the state budget. The Ministry of Health is the central authority in the field of healthcare [7] coordinating relevant issues. In 2014 the Ministry adopted the Decree on Approval of the Strategic Plan of the Ministry of Health of the Republic of Azerbaijan for 2014–2020 [8], which outlined the social orientation of its activities. The Ministry of Finance develops and determines the budget of the Ministry of Health, which is approved by the Milli Majlis (Parliament). In 2017, more than 775 million manats were allocated to healthcare; expenditures on science, education, healthcare, social protection and other related categories accounted for 32.5% of the total state budget, of which 4.7% was allocated for healthcare [9]. By Decree of November 30, 2018, President of Azerbaijan Ilham Aliyev approved the country's budget for 2019 [10], in which more than 1 billion manats were allocated to the healthcare sector. An increase in the amount of budgetary funds for health care underlines the priority of this sphere in the domestic political course and indicates increased attention to this sphere from the top leadership of Azerbaijan.

The key task of modern healthcare reformation is the introduction of the compulsory medical insurance system. Although, the use of insurance in healthcare was laid down in 1999, by the adoption of the Law on Medical Insurance [11], the text of the law is still being edited, and its updated version will come into force only in 2020. In 2007, by the Decree of the AR President, the State Agency for Compulsory Health Insurance was established [12] under the Cabinet of Ministers. Formation of a unified policy of compulsory insurance is one of the Agency's main tasks.

The Concept of Reforming the Health Financing System and the Application of Compulsory Health Insurance was adopted in 2008 [13]; its implementation requires a complete reorganization of the financing system, a new healthcare restructuring, etc. According to the Concept, the reform of healthcare financing is aimed at creating new economic principles, improving access to medical services, increasing the efficiency of using budget funds; the state provides free budget-funded medical services, however, publicly guaranteed health care is not universal, and some services must be paid by citizens [14]. The reform implies creation of an integrated healthcare system, i.e. combining a universal type of public health insurance system (financed from the state budget) and a private system partially funded by citizens, which is a lengthy process. So, since 2016, two cities of Azerbaijan – Mingachevir and Yevlakh with their regions – have been selected as pilot territories for testing a new type of health insurance [15]. In December 2017, by a decree of the President, the Agdash district [16] was also included in the pilot program.

The Center for Public Health and Reforms (CPHR) under the Ministry of Health established in 2006 is financed from the state budget and implements the state health policy in the direction of its reformation. According to the Regulation on the CPHR, it participates in the development and implementation of health policy, ensures the organization of healthcare, develops proposals for reforms in this area, implements reforms in primary health care, etc. The Center has already implemented many projects, such as Creating Schools for Diabetics, Developing a National Tobacco Control Strategy [17].

The Health Informatization Center under the Ministry of Health, established in 2010, [18] operates as an online resource that provides numerous services, such as requesting outpatient medical facilities for home services or electronic registration to visit a doctor. However, the electronic system is still under development and has a limited number of services. In addition, the use of electronic services is not popular among citizens living away from the capital.

Preventive measures to improve the health of the population, as one of the priorities of the health policy, include many programs to help patients with infectious and non-infectious (social) diseases. The preventive

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policy on infectious diseases is based on legal norms formulated in numerous laws of the Republic of Azerbaijan, such as On the Immunoprophylaxis of Infectious Diseases [19] and On Fight Against Tuberculosis in the Republic of Azerbaijan [20], adopted in 2000. Both of these laws indicate state support for their implementation.

Non-communicable diseases, such as cardiovascular, oncological, diabetes, etc., and risk factors like smoking, drug addiction, obesity, alcohol abuse, constitute a significant threat to public health, especially to young people. For example, smoking harms not only smokers, but also people around them (second-hand smoke) and, no less important, the environment. So, in 2015, by Decree of the President of the Republic of Azerbaijan, the Strategy to Combat Non-communicable Diseases in the Republic of Azerbaijan for 2015–2020 [21] was approved. The adoption of such a strategy has two important aspects. Firstly, it is a striking example of the tasks of domestic health policy corresponding with international trends and responding to modern challenges. Secondly, the adoption of the program in the framework of cooperation with the UN and WHO speaks of a policy of harmonization of internal health goals with global goals, i.e., the adoption of the Strategy of 2015 was a direct result of the close cooperation of the Republic of Azerbaijan with the WHO and UN. Namely, the UN adopted the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Noncommunicable Diseases in 2011, which gave impetus to the further development of the WHO Global Action Plan on Noncommunicable Diseases 2013–2020 [22]. Since non-communicable diseases cause concern of the world community, the Azerbaijani leadership also responds to the need to solve the problems arising by adopting relevant decrees and regulatory documents aimed at eliminating them.

Moreover, the State Program for Improving Maternal and Child Health for 2014–2020 [23] was adopted in 2014. Because of improvements in the public health system, demographic indicators have increased and, according to data for 2015 over the past 10 years, infant mortality per 1000 live births decreased from 11.9 to 11.0, and maternal mortality decreased from 30.2 to 14.4 [24].

The political course of the country is closely connected with legislation, since it is the legal norms that govern the implementation of decisions taken at the political level. Legislation in turn is based on international principles and norms, such as universal bioethical principles. The basis of state policy related to the protection of public health lies in the country's main law – the Constitution, which declares that ensuring a decent standard of living of a citizen "is the supreme goal of the state"[25]. Article 41 (The right to health care) declares the right to medical care and a state role in the development of all types of healthcare, which operates on the basis of various types of property and various forms of health insurance [25]. The Article is consistent with the provisions of the Universal Declaration on Bioethics and Human Rights that emphasizes "role of the state" [26] in the implementation of bioethical principles.

Medical law in Azerbaijan is somewhat fragmented due to the lack of systematic approach of national health authorities to this matter, lack of understanding of informed consent doctrine and equality of rights of medical professionals and patients during the treatment process. However, patient's rights are protected by different legal documents and represent part of the Law on Protection of Public Health of 1997 [27]. The Law defines state obligations in the field of public health protection, such as determining state policy and developing programs, financing in the field of healthcare and environment, as well as the rules for organizing and functioning of the healthcare system. The Law encompasses also numerous bioethical principles, such as protection of environment, biosphere and biodiversity, social responsibility and health. The universal bioethical principles of justice and equal rights are also reflected in Article 10 (Chapter III) of the Law, which indicates equality in health issues between citizens and non-citizens, and Article 12, which protects the right to receive not only medical, but also social assistance in case of disability [27], etc.

Health of the people in research and clinical experimentation is protected by Decree of the AR Cabinet of Ministers (No.83) of 2010 on the Rules for the Conduct of Scientific Research of Drugs, Preclinical Research and Testing. Despite the fact that this Decision is not directly related to the protection of public health, its importance for the development of the field of medicine in the country is obvious. It is clinical research that underlies the development of new drugs – an integral element that ensures the development of medicine. So, Clause 4.4 of the Decree states "The safety and health of the person in whom the tests are conducted are of paramount importance, and they must be above public and scientific interests." [28] This norm corresponds to the bioethical principle "human dignity and human rights", which proclaims the paramount importance of the interests of an individual over the interests of science or society. Moreover, the resolution indicates the obligation to obtain informed consent (written or oral, with the participation of two witnesses, if the person cannot write), which directly corresponds to the bioethical principles of "consent" (informed) and "persons without the legal capacity to give consent".

The principle of "consent" is also widely reflected in the Law on Psychiatric Care [29]. The Law obliges medical institutions to provide appropriate assistance (with the exception of involuntary hospitalization), to attract (with the right to refuse at any time) patients to research as an object, as well as their use in the educational process only after receiving consent.

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Article 3 of the Law on the Immunoprophylaxis of Infectious Diseases of 2000 defines the basic principles of preventive measures of state policy, such as free vaccination. The bioethical principle of "consent" is reflected in Article 6 of the Law [30], which requires obtaining consent to immunize persons, including minors or those who have been recognized as legally incompetent in accordance with the norms established by law.

It must be emphasized that the issue of protecting the rights of the population were significantly affected during the Armenian-Azerbaijani Nagorno-Karabakh conflict that occupies a special place in the state policy of Azerbaijan. Despite the political nature, these events negatively affected all spheres of the state's life, including healthcare. As a result of hostilities and the occupation of 20% of the Azerbaijan territory, more than 1 million Azerbaijani citizens were in the situation of refugees and internally displaced persons, 50 thousand people became disabled, and 20 thousand people died; in 1988–1993, in Karabakh, 695 medical institutions were destroyed, among other things [31]. Thus, a large part of the country's population was in a socially vulnerable position and resolution of their problems needed urgent actions from the state. In accordance with the Law on the Status of Refugees and Internally Displaced Persons (Displaced Persons within the Country) of the AR in 1999 [32], their right to medical care is guaranteed. The construction and rehabilitation of medical facilities in the territories affected by the conflict, the provision of mobile medical services, rehabilitation and preventive work among the affected population are implemented through numerous state programs. Many state programs have been implemented, and their implementation continues to this day. Thus, in 2004, by decree of the President of the Republic of Azerbaijan, the State Program on improving housing conditions and increasing the employment of refugees and internally displaced persons [33] was approved, in which much attention was paid to health issues, namely, the construction of medical facilities, the provision of free medical care, etc. The state implements many measures to ensure the benefits of citizens who, as a result of the occupation, find themselves in a group of a vulnerable part of the population, which requires significant financial and other resources.

Another important factor in the state's internal health policy is the leveling of ethical problems. As said, the 1997 main health law covers the main provisions, including the patients' rights [27], and confirms the right of all citizens to medical care. Inequalities in the level of medical services for various social groups of the population are prevented by access to state medical institutions, such as clinics, free of charge. Moreover, according to numerous legal acts, vulnerable segments of the population, especially those who are chronically ill, receive medicines and medical assistance from the state. Thus, the Law on State Assistance to Patients with Diabetes [34] was adopted in 2003, which defines free diagnosis and treatment of this group of patients. Similar legislation was adopted concerning oncology patients as well. In 2013, the Law on Compulsory Medical Examination of Children [35] approved state funding for the implementation of comprehensive measures of medical examination. The mentioned provisions reflect the essence of universal bioethical principles, such as equality, justice and equality, protection of future generations. Today, the introduction of bioethical principles and the harmonization of national legislation, respectively, are one of the main goals of domestic public policy.

Bioethics, which is closely linked to medical law and human rights, is the one of the priority fields of UNESCO activities, of which Azerbaijan is a member. This is one of the factors that has widely contributed to the origin and development of interest in the field in the country. Azerbaijan has already achieved successes in the development of bioethics in general, and there is increasing interest in this area from specialists. The UNESCO National Committee on Bioethics, Ethics of Science and Technology under the Presidium of the National Academy of Sciences of Azerbaijan monitors bioethical issues, their scientific research, educational and counseling activities [36]. However, unfortunately, this body does not have the legal ability to regulate bioethical issues in healthcare.

The Azerbaijan Unit of the UNESCO Chair in Bioethics has translated into Azerbaijani the UNESCO Basic Program on Bioethics. Moreover, the Unit initiated the Training of Teachers on Ethical Education of UNESCO that was held in Baku in 2012, introduction of the subject Bioethics and Medical Law as a scientific discipline in the educational program of students of the law school of Baku State University and inclusion of bioethics in the code of scientific specialties [37]. The 18th session of the UNESCO International Committee on Bioethics, the 23rd World Medical Law Congress (WAML) – the 50th Anniversary Congress – under the title Medical Law, Bioethics and Multiculturalism were held in the capital of Azerbaijan in 2011 and 2017 respectively. Since the WAML has an important role in shaping medical law in post-Soviet countries [38], the holding of such a congress first time ever during its 52 year history in this part of Eastern Europe and Near Asia confirms the development of this field in the Republic.

Thus, based on the analysis of the state's policies and legislative acts of Azerbaijan in the field of healthcare, it can be concluded that the field is actively developing, and although the bioethical principles are widely reflected in legislation, yet there is much to be done. Given the close relationship between policy and law, it is obvious that the norms reflected in legislation, including bioethical principles, are a determining vector in the formation of healthcare policy. Azerbaijan implements many activities in order to harmonize medical legislation with international standards and its reformation is in progress.

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References

1. Hasanov A. Azərbaycan Respublikasının Milli İnkişaf və Təhlükəsizlik Siyasəi. Baku: Letterpress; 2011. p.25
2. "Əsrin müqaviləsi" - 10 il. http://www.ebooks.az/view/wlAHFgSX.pdf (accessed 15 April 2019)
3. Aliyev H. "Müstəqilliyimiz əbədidir" çoxcildliyin elmi-biblioqrafik göstəricisi: I cild. Baku: «Şərq-Qərb»; 2013. http://www.ebooks.az/view/FiCv3BWh.pdf (accessed 03 March 2019)
4. Bioethics, Medical Law and New Technologies, Institute on Human Rights of ANAS; Baku; 2013
5. "Hemofiliya və talassemiya irsi qan xəstəlikləri üzrə Dövlət Proqramı"nın təsdiq edilməsi haqqında Azərbaycan Respublikasi Nazirlər Kabinetinin Qərari. Nº 15, 18 yanvar, 2006-cı il.
6. The official website of the President of the Azerbaijan Republic. "Azerbaijan 2020: Look Into the Future" Concept of Development. https://president.az/files/future_en.pdf (accessed 15 August 2019)
7. Mammadov V. Health care in Azerbaijan. World Association for Medical Law Newsletter 2014; (October-December): 5–7
8. Azərbaycan Respublikası Səhiyyə Nazirliyi. Əmr Nº30 "Azərbaycan Respublikası Səhiyyə Nazirliyinin 2014-2020-ci illər üzrə Strateji Plan"nın təsdiq edilməsi haqqında. http://www.sehiyye.gov.az/files/pdf/emr_2014_30.pdf (accessed 10 March 2019)
9. The Ministry of Finances. Azərbaycan Respublikasının 2017-ci il dövlət büdcəsi haqqında Qanunu. http://www.maliyye.gov.az/sites/default/files/2017-qanun.pdf (accessed 23 April 2019)
10. "Azərbaycan Respublikasının 2019-cu il dövlət büdcəsi haqqında" Azərbaycan Respublikası Qanununun tətbiqi ilə bağlı bir sıra məsələlər barədə Φzərbaycan Respublikasi Prezidentinin Fərmanı. http://www.e-qanun.az/framework/41117 (accessed 11 March 2019)
11. Tibbi sığorta haqqında Azərbaycan Respublikasinin Qanunu http://www.e-qanun.az/framework/80 (accessed 24 April 2019)
12. Azərbaycan Respublikasının Nazirlər Kabineti yanında İcbari Tibbi Sığorta üzrə Dövlət Agentliyi. https://its.gov.az/az/i-tsda-haqq-nda/umumi-m-lumat/ (accessed 24 April 2019)
13. "Azərbaycan Respublikasında səhiyyənin maliyyələşdirilməsi sisteminin islahatı və icbari tibbi sığortanın tətbiqi Konsepsiyası"nın təsdiq edilməsi haqqında Azərbaycan Respublikasi Prezidentinin sərəncami. http://www.e-qanun.az/framework/13091 (accessed 25 April 2019)
14. Decree of President of Azerbaijan Republic on Concept for Health Reformation and Mandatory Medical Insurance. Baku, 10 January 2008. Nº 2620
15. Official website of the State Agency on Mandatory Medical Insurance under the Cabinet of Ministers of Azerbaijan. http://its.gov.az/az/media/press-reliz/ming-cevir-h-ri-v-yevlax-rayonu-pilot-razil-r-olaraq-secildi-1/ (accessed 17 February 2017)
16. Trend. İcbari tibbi sığorta pilot layihə olaraq Ağdaş rayonunda da tətbiq olunacaq. https://az.trend.az/azerbaijan/politics/2862045.html (accessed 16 February 2018).
17. İctimai Səhiyyə və İslahatlar Mərkəzi (İSİM). About us. https://isim.az/en/pages/2 (accessed 16 January 2019)
18. Elektron səhiyyə portalı. Səhiyyənin İnformasiyalaşdırılması Mərkəzi. http://www.e-health.gov.az/az/s/21/Health+Informatization+Center (accessed 17 January 2019)
19. Ministry of Health. Yoluxucu xəstəliklərin immunoprofilaktikası barədə qanunvericilik aktlarına dair BƏLƏDÇİ QAYDALAR. http://health.gov.az/yoluxucu_xesteliklerin_haqqnda_beledci.html (accessed 25 January 2019)Səhiyyə Nazirliyi "Azərbaycan Respublikasında vərəmlə mübarizə haqqında", 2000. http://sehiyye.gov.az//files/pdf/qanun/875.pdf (accessed 18 January 2019).
20. "Azərbaycan Respublikasında qeyri-infeksion xəstəliklərlə mübarizəyə dair 2015-2020-ci illər üçün Strategiya"nın təsdiq edilməsi haqqında AZƏRBAYCAN RESPUBLİKASI PREZİDENTİNİN SƏRƏNCAMI. 2015. http://www.e-qanun.az/framework/doc/31727 (accessed 27 January 2019)WHO. Noncommunicable diseases prematurely take 16 million lives annually, WHO urges more action. https://www.who.int/mediacentre/news/releases/2015/noncommunicable-diseases/en/ (accessed 10 May 2019)
21. "Ana və uşaqların sağlamlığının yaxşılaşdırılmasına dair 2014-2020-ci illər üçün Dövlət Proqramı"nın təsdiq edilməsi haqqında Azərbaycan Respublikasi Prezidentinin Sərəncami. http://www.e-qanun.az/framework/27839 (accessed 15 May 2019)
22. Administrative Department of the President of the Republic of Azerbaijan. Presidential Library. Independent Azerbaijan. Public Health. http://republic.preslib.az/en_c7-4.html (accessed 01 May 2017)
23. Azərbaycan Respublikası Prezidentinin rəsmi internet saytı. Constitution. https://president.az/azerbaijan/constitution (accessed 10 August 2019)
24. UNESCO. Universal Declaration on Bioethics and Human Rights. http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/bioethics-and-human-rights/ (accessed 11 August 2019)
25. Əhalinin sağlamlığının qorunması haqqında Azərbaycan Respublikasinin Qanunu. http://www.e-qanun.az/framework/4078 (accessed 12 August 2019)
26. "Dərman vasitələrinin elmi tədqiqatlarının, klinikaya qədər tədqiqatlarının və klinik sınaqlarının aparılması Qaydaları"nın təsdiq edilməsi haqqında Azərbaycan Respublikasinin Nazirlər Kabinetinin Qərar. http://www.e-qanun.az/framework/19529 (accessed 12 August 2019)
27. Psixiatriya yardımı haqqında. http://sehiyye.gov.az//files/pdf/qanun/142.pdf (accessed 12 August 2019)
28. Azərbaycan Respublikası Səhiyyə Nazirliyi. "Yoluxucu xəstəliklərin immunoprofilaktikası haqqında" Azərbaycan Respublikasının Qanunu http://sehiyye.gov.az/yoluxucu_xesteliklerin_haqqnda.html (accessed 15 August 2019)
29. Official website of the President of the Republic of Azerbaijan. Armenia-Azerbaijan Nagorno-Karabakh conflict. https://en.president.az/azerbaijan/karabakh (accessed 15 August 2019)
30. Qaçqınların və məcburi köçkünlərin (ölkə daxilində köçürülmüş şəxslərin) statusu haqqında Azərbaycan Respublikasinin qanunu http://www.e-qanun.az/framework/4757 (accessed 15 August 2019)
31. "Qaçqınların və məcburi köçkünlərin yaşayış şəraitinin yaxşılaşdırılması və məşğulluğunun artırılması üzrə Dövlət Proqramı"nın təsdiq edilməsi haqqında. http://www.e-qanun.az/framework/6261 (accessed 15 August 2019)
32. "Şəkərli diabet xəstəliyinə tutulmuş şəxslərə dövlət qayğısı haqqında" Azərbaycan Respublikasının Qanunu. http://sehiyye.gov.az/diabet_xesteliyine_tutulmus.html#sel=1:1,1:11 (accessed 15 August 2019)
33. Uşaqların icbari dispanserizasiyası haqqında Azərbaycan Respublikasinin Qanunu http://www.e-qanun.az/framework/25600 (accessed 17 August 2019)
34. Mammadov V., Munir K., Jafarova L. Bioethics Education in Azerbaijan: Preconditions, Development and Current State. World Association for Medical Law Newsletter 2017; Medicine and Law (Volume 36, Number 3): 1-13
35. Mammadov V., Munir K., Jafarova L. Medical science, Research and Higher education in Azerbaijan from bioethical developments perspective. Medychne pravo. 2016; 2(18):18-43.
36. Sergeyev Y., Mammadov V. Development of Medical Law in Post-Soviet Countries and Role of WAML. Med. & L. 2018; 37:701

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The Welfare and Good Health of Patients is not Possible Without the Doctor: Let's Work Together

"Medicine is an art whose magic and creative ability have long been recognized as residing in the inter- personal aspects of patient-physician relationship" [1]. It is based on trust and mutual respect and it is a well known fact that clinical outcomes are determined by the confidence a patient has in his treating healthcare professional.

Today, effective doctor-patient relationship is one of the central clinical elements, as it contributes to more patient-centered healthcare delivery. Alongside creating a good interpersonal relationship and facilitating exchange of information, it also constitutes including patients in the decision-making, regarding their condition and treatments vis-à-vis health benefits and quality of life [2; 3]. Thus, shared decision-making requires close and continuous communication between patients and doctors – at inter-personal level for improved individual care, as well as between their associated communities, in order to influence policies for better access to and quality of health care at wider population scale, while ensuring respect and decent workplace for the medical profession. Therefore, collaboration between medical professional associations like the World Medical Association and patients' alliances like the International Alliance of Patients Organisations is a natural synergy working towards the goal of more efficient, better and safer care for all patients worldwide.

The International Alliance of Patients' Organizations (IAPO) was founded in 1999, with the **vision** to see patients at the centre of healthcare and to help build patient-centred healthcare worldwide**.**

Our founders aspired that we should improve the quality and standard of patient advocacy globally by developing and empowering patient advocate leaders within all patient organisations and healthcare systems. This was to be accomplished by:

- Firstly, creating an enabling environment, globally and within a patient organisation, that encouraged and gave a greater number of patient organisations the opportunity to have their representative serve on international Boards, committees and policy making bodies.
- Secondly, through carefully designed leadership training, capacity building programmes and attendance at WHO and World Bank forums expose more patient representatives to the global healthcare institutional, legal, policy, and practice and standards framework and develop their skills and confidence to undertake national or regional patient advocacy.
- Thirdly, by focusing on cross cutting issues of safety and quality, research & innovation and disruptive technologies, every member organisation could have the opportunity to participate in IAPOs programs and projects thus improving the quality of patient advocacy skills in our networks and
- Lastly, using this diverse global Governance Board to develop innovative programmes, projects and tools for our members that had a high reach and impact on healthcare.

Today, IAPO movement has matured and has come of age. Where in the past we were excluded from the healthcare institutional, legal, policy, practice and standards framework, today we are feted to join them. We are valued because we bring special insight and experience of healthcare and have developed a considerable voice to reach out to the key healthcare decision-makers. This transformation of an exclusory healthcare infrastructure into a positive patient centric one has permeated all levels and institutions in many healthcare settings and systems.

Many WHO Member States are now waking up to the idea that they need the patients' perspective and experience to make their healthcare policy and services effective and efficient. This realisation has also drip-fed to the regulators who want patient insights and perspectives on market authorisation of innovative medicines and devices. The pharmaceutical industry has long benefited from patient participation and engagement in medicines research and development. They are now looking at co-creation and co-designing to maximise patient value and efficiency in their industry. Most countries now aspire to have universal health coverage by 2030. IAPO strives to ensure that patients have a high quality of patient advocacy in place so that we can ensure that they have a sufficient quantity of accessible, acceptable and affordable preventative, therapeutic, curative, rehabilitative and palliative healthcare by 2030. But much more than this, we must ensure this healthcare is delivered in a safe and compassionate manner, to WHO acceptable quality standards. One of your colleagues has rightfully said, "the patient will never care how much you know, until they know how much you care" [4]. Thus, IAPO wishes to call upon all medical and health professional associations to closely work together and collaborate with patient organizations in their respective countries. It is only through the involvement of patients and patient-doctor synergies that we can have a comprehensive holistic health service delivery to all.

References

1. Hall JA, Roter DL, Rand CS: Communication of affect between patient and physician. *Journal of Health and Social Behavior* 1981.
2. Platt F, Keating K: Differences in physician and patient perceptions of uncomplicated UTI symptom severity: understanding the communication gap. *International journal of clinical practice* 2007, 61(2):303-308.
3. Bredart A, Bouleuc C, Dolbeault S: Doctor-patient communication and satisfaction with care in oncology. *Current opinion in oncology* 2005, 17(4):351-354.
4. Ha JF, Longnecker N: Doctor-patient communication: a review. *Ochsner Journal* 2010, 10(1):38-43.

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Health Systems in Post Conflict; Case of Somaliland

Somaliland, one of the regions in Somalia with an estimated population of 3.5 million people, has a history of conflict, which lasted from the late 1980s to early 1990s, and this resulted in the collapse of the health sector. Some years of relative stability evince that Somaliland is ready to realign its focus towards long-term development plans.

The health and demographic situation in Somaliland leaves much to desire, and according to UN data, the country has some of the worst health and nutrition indicators in the world and is unlikely to reach the health related MDGs; women, girls and the poorest groups are most affected in this context. The health of women, adolescent girls and children and their access to health care are disproportionately affected, with particular risks to sexual and gender based violence. UNDP Human Development Report 2000 ranked Somalia the lowest globally in all health indicators, except life expectancy.

According to the UNICEF MICS 2011 and other surveys, Somaliland has some of the worst health indicators in the world: under-five mortality 90/1000, infant mortality 72/1000, neonatal mortality 35–48/1000, maternal mortality ratio 1044/100,000 (MIS, 2006). Only 5% of children are fully immunized by age 1, 26–37% of women are married before age 18, use of effective contraception stands at 3%, skilled attendance at delivery stands at 60-30% and 98% prevalence of FGM.

Limited access to primary health care, inadequate quality of service, poor hygiene, sanitation, and low supply levels are just some of the factors which contribute to these desperately poor health indicators. The human resource deficit in all regions is enormous. Acute and chronic skilled staff shortages, structural fragmentation, insufficient and distorted incentives to motivate staff, limited supervision and mostly ad-hoc management arrangements are issues in all areas. Although Somaliland's health authorities are developing strategies and tools for improved governance of the sector, huge gaps are still evident, necessitating continued capacity building and support.

Somaliland is not a unique case; it shares a lot with other post conflict settings around the world. The disruption of health systems affected the human resource in the healthcare sector greatly. Somaliland is struggling with a chronic shortage of skilled healthcare workers which is the result of the large-scale emigration from the country during the war; in the last 25 years there were efforts to produce skilled healthcare workers to fill the gap, but the weak government and the poor resource deployment is a huge challenge as well as the retention of the skilled health-care workers in remote regions.

Somaliland is among those countries faced with a critical shortage of competent health workforce (WHO, 2006), doctor-to-patient ratio as well as the number of other healthcare workers being the lowest in the world. WHO reports show 1 doctor per 30,000 population, 1 nurse per 9000 population and 1 midwife per 27000 women.

In every post conflict setting there is adaptation of alternative medicine or traditional healers. Traditional birth attendance is caused by the disruptions of the health care services. Somali community prefers the traditional medicine and people first seek to attend traditional healers, therefore it takes a long time to phase out this traditional birth attendant at deliveries in the country with the highest maternal and neonatal deaths. As the country is emerging from the post conflict setting, individuals who have experienced the horror and trauma of the war widely suffer from mental disorders and illnesses; unemployment and poverty contribute largely to the development of these illnesses, while there are only 4 trained psychiatrists for the population of 3.5 million.

The other challenge is surgical operations, which are costly, and difficult to access. Neither the poor people can afford the cost and die from complications nor do the rich have access to a good quality of surgical care.

Junior doctors working without senior supervision is another challenge because this can lead to malpractice and be a cause of death. Although there are nurse anesthetists, few of them can perform pediatric or geriatric anesthesia and to people with co-morbidities.

Nevertheless, for the last 27 years, doctors without specialization were operating. The only available surgeons are practitioners; operating rooms, equipment and specialized surgeons are a challenge Somaliland is currently facing. Much is donated by either charities or partner organizations for programs or as support to strengthening the general health system.

Hospitals have very few maintenance staff responsible for medical equipment. Maintenance staffs were very resourceful but did not have formal training on medical equipment, nor did they have the resources (tools, engineering equipment or a functional workshop) to do their job. There are currently no training programmes for biomedical engineering personnel in Somaliland at any skill level, from craftsperson to technician, technologist or engineer. Thus, there seem to be no qualified biomedical engineers working full time in the country, let alone within the health system. One of the most skilled technical service providers in Somaliland is the lead technician for the largest laboratory equipment supplier in the country.

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One of the most important steps in laying the foundation of a functioning health system was the establishment of Amoud University Medical Faculty in October 2000 and later Hargeisa University Medical Faculty in 2004. The establishment of the Edna Adan Nursing School and the opening of Nursing & Midwifery Training Institutions such as Hargeisa Institute of Health Sciences, Burao Institute of Health Sciences and Amoud Nursing School. The first group of locally trained doctors graduated in August 2007 from Amoud Medical School.

Patient safety is not sufficiently taken into account; theoretical understanding about quality is good but the application is not widely practiced. The existence of guidelines is limited and not readily available, reducing the accessibility to knowledge about the expected standards of care. Supervision from the hospital management and leadership is limited, requiring capacity development and investment in their workforce.

Unfortunately, Somaliland has not yet operationalized health sector regulation to include functions like the registration, licensing and accreditation of health professionals and institutions and programs to properly protect the patients' right to get quality health care. The unregulated nature of the health sector and the shortage of health professionals have created a health system where an unknown number of persons work as unqualified "health professionals" and proliferation of unregulated healthcare facilities such as clinics, pharmacies and medical laboratories and education program for healthcare workers. This situation has raised public safety concerns, and is a barrier to improving the quality of health services. Furthermore, the emergence of the so called training program provided by unaccredited institutions means that the country continues to produce "graduates" whose qualifications are currently unrecognized by the government of Somaliland.

There are opportunities to address these gaps; Somaliland's health system is young, it requires providing equitable, efficient and affordable quality priority health services as close to the communities and families as possible based on primary health care approach.

The policy makers' involvement is crucial to have a willing leadership to improve the quality of health care and increase the patient safety standards; this is to develop standard operating procedures for the quality of care that includes checklists and routine/regular monitoring and training.

Improving infrastructure and equipment, surgical training residency specialization and anesthesia, health workforce plan adaptation and regulation are essential.

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The Right to Health; What is the Role of the Doctor in Uganda?

Ekwaro A. Obuku

Health is wealth, and any nation worth its salt will provide for a healthy population for sustained economic productivity. The right to health is enshrined in various international and Ugandan laws and instruments including our 1995 constitution. However, beyond dry ink on paper what is our role as Doctors in guaranteeing the common Ugandan citizen the right to health?

Doctors are the natural leaders in medical teams and principals in guiding society about healthy living. To support this claim, one of our forefathers Dr. Carl Ludwig Virchow (1821–1902), who wrote about the Virchow's triad of circulation, asserted, "... Physicians are the natural attorneys of the poor, and social problems fall to a large extent within their jurisdiction...".

When health fails, doctors are the ultimate "mechanics" who attempt to repair one's health. Indeed, we are privileged to serve Ugandans (and humanity) in this delicate space between disease, health and death which is God's calling. We therefore are no arrogant about it, rather take this role very seriously beyond diagnosis, prescribing medicines and care.

Uganda's public sector relies on a tax-based system that is undemocratic, inefficient and excludes the very poor. The result is preventable deaths among the rural and poor Ugandans due to malaria in children or 15 pregnancy related deaths daily due to bleeding, high blood pressure or infection. Without effective health financing, Ugandans, especially the very poor, will continue in a state of poor health with resultant sub-optimal economic production reflected in our low-income (GDP).

Only a national health insurance scheme could come close to bridging this health-financing gap and empowering the citizen to fight corruption in the health sector. This mechanism permits for solidarity that the rich pay for the poor, the employed pay for those not working (retired and children) and those who fall sick often are catered for by contributions from those who are healthy. By directly contributing to a national scheme Ugandans will be empowered to demand for quality of health care, less so in the current "free health care" regime (tokenism).

I would argue that the modern Ugandan Doctor ought to actively participate in three aspects:First, report for duty, in time and actually attend to patients as our first consideration due to Hippocratic Oath. A doctor's presence guarantees quality of care to Ugandans in immediate need, including children with severe malaria and mothers in obstructed labour.

Secondly, take leadership and have operating theatres in our Health Centres IV. Many doctors have shied away from our health system due to its weakness. Yet, strengthening the health system is in our interest by promoting the practice of medicine as well as securing our lives as potential patients or victims of road traffic accidents.

Third, let us speak-up for our patients to advise and call to action our decision makers at various levels from health facility to Local Governments, Parliament and the Executive. This is in line with the utilitarian principle (greatest good for the greatest majority), and our Hippocratic Oath that "...the health of my patient shall be my first consideration...".

With this three-pronged approach, Ugandan doctors will make a meaningful contribution towards the Universal Health Coverage of 2030.

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Health Sector Reforms in Uganda, not yet Uhuru!

Ugandan doctors have been engaged with making the state highlight the key policy concerns plaguing the health sector, with a particular focus on human capital. More recently, this culminated into the 3-week countrywide doctors industrial action during November 2017. Indeed, the government of Uganda responded positively by increasing the health sector budget in the subsequent fiscal years 2018/19 and 2019/2020, specifically targeting medicines and essential supplies via the National Medical Stores by Uganda shillings 138 billion (+60%), Uganda Blood Transfusion Services by Uganda shillings 21 billion (100%) and salary enhancement for all health workers by 30% to nearly 300% depending on the cadre. Consequently, it is obvious even to the blindfold that the government has heavily invested in physical infrastructure and equipment, such as the numerous hospitals renovated or newly constructed: Kirruddu, Naguru, Kawempe, Karamoja, Mubende, Mityana, Masaka, Entebbe and the Mulago complex with the new Cancer Institute and specialized one for Women in Mulago.

John Iliffe, in his book *East African Doctors,* writes about doctors in Uganda conducting industrial action to better the health sector since 1911 when the Uganda branch of the British Medical Association was formed. Between 1918 and 1921, the BMA secured major salary improvements to attract and retain its members to practice in East Africa. Soon after, between 1930 and 1950 the doctors' Association concerned itself with hospital conditions and public health. Around the time Uganda gained independence, the struggle was for African doctors to be recognized as such and not Medical Assistants. The late Prof. Alex Mwa Odonga, in his book *The First Fifty Years of Makerere Medical School and the Foundation of Scientific Medical Education in East Africa*, recalls how African doctors would travel to the United Kingdom to sit for examinations and return even before the results were released as a sign of patriotism. Indeed, Makerere was the breeding ground for African doctors continent-wide.

Overall, Uganda has come a long way and made significant achievements in key health outcomes. The life expectancy at birth is now at 60 years and above from below 45 years due to the wrath of HIV/AIDS; maternal deaths have dropped from above 500 to less than 350 per 100,000 live births, which is still very high; tremendous reductions in child mortality with simultaneous reduction of malaria in the recent past.

However, is it yet *Uhuru* for the health services Ugandans are subjected to? *Uhuru* in Swahili means freedom from poverty of self-determination. How many Ugandans are increasingly impoverished by enormous costs for their medical care (catastrophic health expenditure)? In the next paragraphs, I describe that there are three game changers the government could build on to realize the Universal Health Coverage especially to the poor and very poor Ugandans.

First, the most effective intervention for Uganda is to increase the money available for health services through the long awaited national health insurance scheme. This insurance scheme idea has stagnated for over 3 decades, appearing in over 3 presidential manifestos, since the time Uganda's health sector budget share was 3%. The budget of the health sector has not been responsive, stagnating between 7% and 9% for the past decade, while that for roads has tripled to about 20% share of the national cake. The ideology of a national health scheme is that of solidarity in the sense that the rich pay for the poor, the working class pays for the indigent, retired and children; whilst the healthy population pays for the sick. Most of all, every citizen shares this collective

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responsibility further entrenching patriotism whose curriculum would hardly be taught in formal classes. A prepayment scheme of this kind is inherently democratic as it improves the demand for quality services and acceptability by the tax paying citizenry. Indeed, it is such a scheme that would subsidize the service costs at the newly commissioned Women Hospital in Mulago that has generated uproar from the populace.

The second game changer is Mr. Museveni's focus on health promotion and disease prevention. In September 2017, our 2nd Grande Doctors Conference was held, the theme was "promoting healthy lives". The cost savings for disease prevention programmes are unprecedented for low-income countries like Uganda whose investment in health mismatches the burden of diseases. Indeed, after the mass distribution of insecticide treated mosquito nets, malariologists have consistently documented that in some areas in Uganda, such as Kampala, malaria has disappeared. Gone are the days that every fever would likely be malaria. Certainly, Mr. Museveni's response to the epidemic of non-communicable diseases is a game changer akin to the "ABC strategy" of the late 1980s and early 1990s when, in the absence of antiretroviral therapy, Uganda's homegrown solution dealt a major blow to the HIV/AIDS scourge. Ugandan doctors have hardly been spared by the cancer epidemic to which we lost over 5 doctors in the past year alone including our icon Dr. Margaret Mungherera who passed away on the World Cancer Day, 4 February 2017. Consequently, the Uganda Medical Association initiated the Physician Wellness Programme for screening all medical doctors for cancer and other diseases of lifestyle, as we lead by example. We are pleased that the government has purchased several radiotherapy machines that will be installed as soon as the bunkers at Mulago are completed.

Third, solutions for human capital weaknesses in Uganda's health system should be in sync with the progressive global strategies on human resources for health recommended by the World Health Organization and Global Health Workforce Alliance. The recent increase in salaries will definitely attract health workers to report early, report in hard to reach areas and remain productive at the health facility. This move may complement the proposed biometric surveillance machines. However, where health worker staffing is chronically low or with perennial shortage of medicines and limited access to medical technologies, Ugandans cannot be guaranteed quality services. These data from 5,600 absentee health workers suggest that the sheer scarcity of a robust health workforce is a bigger underlying problem for which we should invest as a country. With the new competitive salaries, Moroto Regional Referral Hospital that returned its wage bill for failure to attract 14 specialists in 2017/18 is unlikely to the same this year as the Uganda Medical Association has pledge to mobilize its members to fill up these posts.

Lawrence Bossidy, a former chief executive of General Electric, could not emphasize more the importance of human capital in his world famous quote "…nothing we do is more important than hiring and developing people. At the end of the day you bet on people, not on strategies…". As a successful revolutionary who shot himself to power, no one understands the power of foot soldiers than our fountain of honor, the President. In this case, frontline health workers are the Field Force Unit of the health sector! Let us strive to inspire them to be better civil servants!

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Clean Indoor Air is Key to Asthma Prevention

In most homes, the air inside is dirtier than the air outside, contributing to asthma and other pulmonary complaints. This month, the WMA's My Green Doctor program has a short guide to help your patients improve indoor air quality, "Go Green at Home to Prevent Asthma and Breathing Problems". You might print copies to share with your office colleagues and for the waiting room: *https://www.mygreendoctor.org/go-green-at-home-to-prevent-asthma-breathing-problems*.

There's also a link to a free waiting room poster.

My Green Doctor is a free membership benefit from the World Medical Association that is saving members money as their offices adopt wise environmental practices and share these ideas with their patients. Hundreds of healthcare offices and clinics of WMA members use My Green Doctor. It adds just five minutes to each regular office organizational meeting. My Green Doctor explains what to say and do at each meeting so there is nothing for the office manager to study. Your patients will be impressed! Ask your clinic manager to register: *https://www.MyGreenDoctor.org*.

If you are a leader in your national medical association, please add this message to your organization's newsletter so that your members can enjoy this free membership benefit. To receive this e-newsletter announcement in a language other than English, simply contact My Green Doctor's Editor: *tsack8@gmail.com*.

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Interview – Survival: One Health, One Planet, One Future – Routledge, 1st edition, 2019, by Daniele Dionisio PEAH – Policies for Equitable Access to Health

Re-published with permission from Dr. Daniele Dionisio, Member, European Parliament Working Group on Innovation, Access to Medicines and Poverty-Related Diseases. *http://www.peah.it/2019/10/interview-survival-one-health-one-planet-one-future-routledge-1st-edition-2019*

George Lueddeke

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Ways forward to ensure the sustainability of people and the planet are needed at a time when the interdependencies among humans, animals, plants and the environment are to be recognized as the cornerstone to drive/steer the UN 2030 Sustainable Development Goals (SDGs). In this connection, PEAH had the pleasure to interview ***Dr George Lueddeke*** *as the author of the recently published cross-disciplinary book* ***Survival: One Health, One Planet, One Future*** *Routledge, 1st edition, 2019. Including contributions from the World Bank, InterAction Council, Chatham House, UNESCO, World Economic Forum, the Tripartite One Health collaboration (UN Food and Agriculture Organization, World Organisation for Animal Health and World Health Organization), One Health Commission and more - this book cuts across sociopolitical, economic and environmental lines*

On this wavelength, what about the main purpose of *Survival: One Health, One Planet, One Future*?

Lueddeke: The book tries to make sense of the uncertain and tense ("rattling") times we are experiencing and asserts that the One Health & Well-Being concept (OHWB) – that recognises the interdependencies among humans, animals, plants and their shared environment – is critical to safeguarding our future while also providing a "unity around a common purpose" that seems to be missing globally. I prefer the term One Health & Well-Being (vs just 'One Health') as it emphasises not only the crucial importance of human physical and mental well-being but also the need to strive toward meeting socioeconomic, geopolitical and ecological conditions to ensure the sustainability of all living species and the planet.

PEAH: Dr. Lueddeke, the international *One Health for One Planet Education (1 HOPE)* initiative was created to address perhaps the most important social problem of our time:'How to change the way humans relate to the planet and each other to ensure a more sustainable future to all life'.

I also argue that the OHWB approach ought to drive/steer the 17 UN-2030 Sustainable Development Goals (SDGs) that were agreed by all 193 Member States of the United Nations in September 2015. The main aim of the UN Global Goals is to create 'a more just, sustainable and peaceful world.' The OHWB perspective needs to inform and encourage decision-makers at all levels – especially Civil Society- to get behind the UN global initiative regardless of ideological persuasion or divisions. The challenge is how to get government, business and civil society behind OHWB

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and the SDGs across all nations – those that are more economically developed and those that are developing and of course those that are in disarray – many for reasons that defy logic. Concentrating on local needs guided by global/national priorities that are in keeping with sustainability values and practices is without a doubt the best way forward.

There are about 7.7 billion people on the planet, and it is estimated that there will be over 9.8 billion by 2050 and 11.2 billion in 2100. Climate change, urbanisation, pandemics, conflicts (globally we spend over US $7 trillion on war and only $ 3% on peace-c. $6 billion!) and food security are main issues we need to tackle now and feature in the book along with health care – perhaps prompting reconsideration of the term "Public Health" and widening its remit to the more inclusive "Global Health and Well-Being" as the focus must shift to ecocentrism.

Changing the way we think and behave should no longer be a question of why but how -although our main concerns continue to be political and economic rather than sustaining the planet. Populism, nationalism and isolationism are the antithesis of the paths toward which we ought to be striving. The root causes of these movements need to be investigated and solutions found that ensure global equity, peace and sustainability. It may be important to remind global decision-makers that if we fail to save the planet none of the other human activities will matter. Shelley's poem Ozymandias (1818) comes to mind. I am also reminded of a quote by economist and author John Kenneth Galbraith – 'A nuclear war does not defend a country and it does not defend a system …not even the most accomplished ideologue will be able to tell the difference between the ashes of capitalism and the ashes of communism.'

PEAH: The book highlights two of our greatest social problems: changing the way we relate to the planet and to one another and confronting how we use technology for the benefit of both humankind and the planet. How to translate theory into practice?

Lueddeke: Several years ago, Marco Lambertini, executive director at WWF, made clear why there has to be a major societal transformation. As one example, he observed that 'in less than two human generations, population sizes of vertebrate species have dropped by half.' Further, he reminded us: 'These are the living forms that constitute the fabric of the ecosystems which sustain life on earth and the barometer of what we are doing to our planet, our only home.' He also warned that 'We ignore their decline at our peril.' Echoing the book's main theme, he also emphasised the need for 'unity around a common cause,' collaboration, and leadership 'to start thinking globally and to stop behaving as if we have a limitless world.'

In the intervening five years since the WWF report was published, too few leaders – G7 (France, United States, United Kingdom, Germany, Japan, Italy, Canada [Russia suspended] and E7 (emerging – China, India, Brazil, Mexico, Russia, Indonesia and Turkey) have listened. Given the available evidence today (e.g., the UN biodiversity report published in May 2019!), there is now, unquestionably, a pressing need to re-orient society towards a sustainable future. The challenge is to shift our perspective from two-dimensional to three-dimensional, 'orbital' thinking, as NASA International Space Station astronaut Col Ron Garan contends –'bringing to the forefront the long-term and global effects of every decision.'

PEAH: Relevantly, you maintain in the book that two fundamental changes are necessary if we – and all other species – are to survive in the coming decades. Tell us more, please, around these changes.

Lueddeke: In terms of sustainability we are challenged to make a fundamental mindshift – adopt a new worldview – to ensure our needs as human beings are compatible with the needs of our outer world – our ecosystem. Education is key in this regard as are global/national/local policies and strategies that underpin OHWB and the SDGs.

Secondly, we must ensure that technology / AI is used only for peaceful purposes and in support of the health and well-being of allspecies and the planet. The dangers of techno warfare and genetically engineered viruses are all too real and we must learn from history. The late physicist, Stephen Hawking, said it best 'We are all different we all share the human spirit' but 'unless crucial societal transformations occur, including the prevention of nuclear war, global warming and genetically engineered viruses – the shelf life of Homo sapiens could be extremely short.'

The battle between technology and humanity may yet become our greatest threat. As we head further into a techno-driven society – age of quantum computers (where computations can be done in minutes vs 10,000 years on today's supercomputers), there is a real danger that we become increasingly dehumanised rather than as Klaus Schwab, executive chair of the World Economic Forum, aspired, that we refocus on becoming 'better humans.'

PEAH: Summarised in *Ten Propositions for Global Sustainability*(Ch. 12), the volume calls for the One Health and Well-Being concept to become the cornerstone of our educational systems and societal institutions – helping to create – in keeping with the UN 2030 Global Goals – a more "just, sustainable and peaceful world." Can you detail about the Propositions in their connection with the One Health and Well-Being concept?

Lueddeke: Two of the main recommendations of Survival is that the One Health & Well-Being concept should become the cornerstone of our educational systems and

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society at large and that OHWB principles and approach should underpin the UN-2030 Sustainable Development Goals.

The Propositions cut across socioeconomic, geopolitical and environmental lines. The need for a paradigm shift and peaceful use of technology have already been mentioned. Others relate to migration, genuine collaboration among government, business, civil society, and actively promoting 'the values of equality, democracy, tolerance and respect.' The need for global discussion on these and other propositions seems essential. The UN could be best placed to lead on the initiative perhaps supported by higher education institutions (universities, colleges, etc) of which there are about 26,000 impacting on the lives of millions.

To raise awareness across education systems and communities, the One Health Education Task Force along with a global planning teamare evolving an international One Health for One Planet Education Initiative (1 HOPE). Anyone interested in joining a working group can sign up *https://tinyurl.com/y2ux5b5g*

PEAH: Proposition 10, inter alia, focuses on reforming the UN Security Council established right after WWII (1946).What does this mean?

Lueddeke: Well, the UNSC was formed after WWII (1946) consisting of 5 permanent members (US, China, Russia, UK, France), while in 2019, the most densely populated regions with the greatest poverty and conflicts – Africa (c. 1.2 bill), India (c.1.3 bill), SE Asia (c. 600 mill), Middle East (c. 400 mill) – c. 50 % [3.5 bill out of c 7.7 bill] – are NOT permanently represented. Shifting to regional (6) representation (vs countries) would clearly be in the best interest of the world given the need for global accountability and sustainability.

UNSC members should also be held globally accountable by key stakeholders – governmnet, business, civil society – for their role in maintaining world peace and security – based on a genuine commitment to shared people and planet values. The question is how can we achieve these ends when forces are pushing the world in the opposite direction. Surely, these decision-makers also have children and grand-children and would like to see them thrive in a better world where hopes and dreams can be realised.

PEAH: As for the range of key topics covered in the book?

Lueddeke: This is my third book this decade and in a way represents a personal journey of discovery trying to understand the world and healthcare – first from a more narrow human-centric medical education perspective (Medical Education for the 21st Century), moving to the wider public health horizon and recognizing the limitations of my assumptions (Global Population Health &Well-Being in the 21st Century) to pulling various strands together in Survival: One Health, One Planet, One Future. I don't think I could have written the latter without the former. The new publication is really a building block of personal knowledge acquisition tinged by personal and professional experience in Canada and the UK plus other countries.

PEAH: As reported '…The sub-discipline that has perhaps come closest to integrating other disciplines, including medicine and environmental science, is public health. In *Survival: One Health, One Planet, One Future*, George R. Lueddeke, the chair of the One Health Education Task Force, shows how public health can be incorporated into a wide range of fields to address individual, population, and ecosystem health…'With respect to this, kindly let us know more.

Lueddeke: This quote appears in one of the on-line book reviews and comes from a World Economic Forum / Political Syndicate on-line article, "Economics can no longer ignore the earth's natural boundaries," written by Erik Berglof at the London School of Economics. Three key messages are that 1) economists have treated inequality too narrowly and that income disparities within countries are caused mainly by global financial forces rather than local labor-market conditions; 2) policies are required to make society more sustainable; and 3) a new field of planetary social science is needed to bring together 'different perspectives, conceptual frameworks, and analytical tools.' He affirms that public health is closest to integrating other disciplines and refers to *Survival: One Health, One Planet, One Future*, and 'how public health can be incorporated into a wide range of fields to address individual, population, and ecosystem health.'

Survival concludes with a discussion on the leadership role that Generation Z – those – the 'fixers' born in the mid 90s – need to play in the decades that lie ahead . They are becoming the face of the planet and are much more tolerant of others and thrive on collaboration. Recalling the eloquent words of civil rights leader Martin Luther King Jr, Gen Z are certainly far from silent 'about things that matter.' Their voices must be heard across the globe as their future depends on decisions we make today!

PEAH: Your insightful answers best enhance the book. So compounded, the volume is of great interest to policy-makers,

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multi-professional practitioners, academics, students across all disciplines and concerned members of the general public – especially the younger generation – in both developed and developing nations. For many reviewers to date, your book is indeed a wake-up call which needs to be heard "loud and clear" globally.

Just echoing a recent endorsement by Tracy Collins, founder at The Island Retreat, County Cork, Ireland '… When we accept that humankind is part of something bigger, then the world will be a better place. Our natural world is not there to provide us with unlimited resources… it really is time to start learning to respect it. Thank you George R. Lueddeke for being a voice of reason in a world of chaos!'

Posted on28th October 2019
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Digital Transformation In Healthcare – South African Context

Michael Mncedisi Willie

Digital transformation is growing at a slow rate in medical schemes and healthcare when compared with other industries such as banking and insurance. The healthcare sector needs to embrace the digital transformation and adopt and optimize the use of technology. Otherwise, the sector will be left behind. Other sectors have taken advantage of technology; typically, in the retail sector; nowadays consumers shop online, bank, and do travel bookings online. The logistics business has also embraced digital transformation in that most activities are now done through devices using the convenience of one's office or home.

The recent HPCSA[1] conference included topics such as Telemedicine's where several digital transformations and innovations in the health sector were presented. What was evident in the discussions was that progress in accelerating digital transformation is hampered by the slow pace of regulation and other relevant guidelines. The topics discussed clearly revealed that the health sector is still far behind, compared with other countries. For example, there is a gap in the adoption of digitally enabled tools for diagnosing, providing treatment, and better management of chronic and other conditions. Electronic medical records are still not a part of routine care, both from the supply and the funders side, except for a handful of players.

On the funders' side, you do find several medical schemes[2] that invest in technology. For example, there are schemes that are already implementing digital application forms for smooth onboarding of new members. This is with the aim of going digital and reduce paper application forms. Similarly, the submission of claims of which more than ninety-eight (98%) are submitted in electronic form has transformed claims significantly. Strategies such as digital marketing are typically used to reach the target market and to communicate more effectively with members. Several schemes have invested a lot in product development, such as mobile apps, and by developing communication channels through online and social media platforms. Social media platforms provide an opportunity for brand repositioning. They also provide an opportunity to reach a new target market and gain access to a larger pool potential client base. Social media platforms could also be used as a tool to improve services to clients, create convenience and provide instant interaction with clients. However, very few medical schemes optimize on these platforms; particularly small to medium schemes. There is still a need to measure the value add of digital transformation to members; chiefly where the quality of care is concerned.

A recent study was conducted by Willie, which was an unstructured survey on the use of medical scheme mobile apps by members [7]. The survey revealed than more than seventy-five percent (75%) of the respondents did not have the app installed.

Some of the reasons given for not using the app were:
- Lack of awareness about the app;
- The app is complex;
- No reason to use the app;
- Does not meet my needs.

Digital disruption has great potential in healthcare. The main areas of investments are certainly Big Data analytics and AI (Artificial Intelligence). Some of the Big Data analytics tools are useful for improving efficiencies, where some of the tools can be automated. This could potentially yield better utilization of human resources and could potentially create huge cost savings. In the main, Big Data and AI tools are used to profile clients, medical service providers and to look at healthcare utilization patterns and trends. Some of the techniques such as predictive analytics are important; in that they can be used, not only to profile members but also to create a strategy to combat attrition. Insights from the data could be useful for data-driven decision-making processes that could potentially save huge downstream costs for medical schemes. There is also great potential in investing in digital marketing and in the optimal use of mobile apps.

Digital Transformation Initiatives In The Public Sector – In South African Healthcare

There are several innovations that must take place in the public sector in South Africa as far as digital transformation is concerned. Chiefly, these are still at beta phases and their overall impact and outcomes are still to be realized. Furthermore, there are pockets of digital innovations in the public sector dating back to 2014. Some are initiatives employed at provincial level, while others

Box 1: Digital developments in the public sector

Year	Digital developments
2014	• Aviro launched their innovative eHealth app. • North West department of health outlines eHealth plans (RHIS). • Cell – Life's iDART hits the target. • Tier.Net, the software application that monitors patients on HIV and TB treatment. • The NDoH has issued a tender for a service provider to conduct an evaluation of the use of the Tier.Net software. • NDoH sets out eHealth standards evaluation process.
2015	• The Mpumalanga DoH issues eHealth tender. • eHealth rollout high on Gauteng's agenda. • Mobenzi has partnered with the Anova Health Institute to support the Limpopo (DoH) with the deployment of Mobenzi mHealth technology. • eMocha launches TB mHealth platform in South Africa. • NDoH is working with the CSIR to develop an eHealth system to accompany the rollout of NHI. • North West DoH announce eHealth pilot.
2016	• eMocha Boosting MDR-TB linkage to care in South Africa. • eMocha's miLINC for MDR-TB mHealth platform was designed after the NDoH approached Johns Hopkins University. • The Human Research Science Council (HSRC) has announced the development of a new mHealth app aimed specifically at pregnant teens. • NDoH using eHealth to improve health facilities. • South Africa adopts WHO's HIV 'Test and Treat' guidelines.
2017	• mHealth aiding in the diagnoses of burn injuries. • Generic and Biosimilar Medicine of Southern Africa has asked the South African government to accelerate the evaluation and the registration of more affordable biosimilar medicines in South Africa. • South African medical information-exchange company, Healthbridge, has announced their acquisition of Infosys Software Solutions' Healthcare division. • WHO and ITU to use eHealth to strengthen health services in Africa. • South Africa digital health accelerator attracts top eHealth start-ups.
2018	• The National Department of Health (NDoH) has identified IT and health information systems (HIS). • The South African Medical Research Council (SAMRC) has partnered with Jembi Health Systems NPC. • Philips and UJ renew MoU to empower healthcare professionals. • Digital Health Cape Town have announced the commencement of their second accelerator programme. • A new mobile app, called ViaOpta Hello, has been unveiled, to help hundreds of thousands of South African living with blindness and severe visual impairment.
2019	• A subsidiary of CompuGroup Medical SE has developed an e-scripting solution that is helping over 1,000 South African doctors to ensure medication adherence among their patients. • Aviro Health launches whatsapp channel to support HIV self-testing.

1 The Health Professions Council of South Africa is a statutory regulator of healthcare professions in South Africa.

2 Medical schemes are non-profit organisations which are registered with the Registrar of Medical Schemes. Members belonging to a scheme make contributions and in return, receive medical cover according to the rules of the scheme.

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are deployed at the national level. An integrated holistic approach at the national level could ascertain value added and impact in the sector. Box 1 below depicts the Department of Health's (DoH) digital and eHealth developments and implementation from 2014.

The Use of Artificial Intelligence in Healthcare

Artificial Intelligence (AI), Machine Learning (ML) and Big Data analytics are some of the most talked-about technologies in recent years. According to **Bali, Garg, and Bali**, AI aims to mimic human cognitive functions, such as the ability to reason, discover meaning, generalize, or learn from experience [9].

Popular AI techniques include machine learning methods for structured data, such as the classical support vector machine and neural network, and the modern deep learning; as well as natural language processing for unstructured data [10]. Machine learning is the foundation of modern AI and it is essentially an algorithm that allows computers to learn independently without following any explicit programming [6].

The use of AI is already at advanced stages in other industries. Its adoption in healthcare is growing at a steady rate; however, there is no doubt that AI is certainly going to change the face of healthcare delivery. AI is being employed in numerous settings; for example, funders, as well as administrators, use it to adjudicate and to process claims and hospital facilities for assessing bed occupancy.

AI is also used to analyses unstructured data such as images, videos, and physicians' notes to enable clinical decision-making and information sharing. Other commentators such as argued that AI is more prevent in the area of medical diagnosis. AI systems can analyse huge volumes of data faster and far better than humans [8].

Box 2: Applications of AI- select list

Medical Diagnosis AI systems can analyse far more data far faster than humans, which may make them more adept at identifying medical diagnoses than doctors.
Neurology Neurological healthcare deals with nervous systems disorders such as Parkinson's disease, Alzheimer's disease, epilepsy, stroke, and multiple sclerosis. AI can also predict strokes and monitor seizure frequency.
Pathology Images Most diagnoses depend on a pathology result, so a pathology report's accuracy can make the difference between diagnosis and misdiagnosis.
Radiology Tools Various forms of radiology, such as CT scans, MRIs and X-rays provide healthcare providers with an inside view of a patient's body. However, different radiology experts and doctors tend to interpret such images differently.
Smart Devices Hospitals are big purchasers of smart devices. The devices, which take the form of tablets and hospital equipment, exist in intensive care units (ICUs), emergency rooms, surgeries and regular hospital rooms.

Source: [11]

These improvements can improve efficiencies in identifying medical diagnoses better than doctors. It should be noted that AI cannot completely replace the medical profession, but it could be used as a tool to optimize current processes, reach medical conclusions and aid with decision-making factors, thus saving costs and improving quality of life.

Applications of Artificial Intelligence

Artificial Intelligence has the potential to change the healthcare industry in South Africa for the better. This is subject to its optimal use in both the supply and demand side of the health care ecosystem. AI is delivering high value, including the following areas:

Overutilization, Waste and Abuse of Medical Services

The South African private health sector expenditure is viewed as one of the most expensive models, when compared to other similar countries, South Africa spends nine percent (9%) of its GDP on healthcare, which is four percent (4%) higher than the WHO[3]'s recommended spending for a country of its socioeconomic status [5]. Furthermore, South Africa has one of the highest government health spending per person [12], particularly the private health sector. According to the Competition Commissioner (CC), private hospital admission rates in South Africa are higher compared to most OECD countries, partially procedures such as arthroplasty, tonsillectomy and caesarean section [13]. The over-utilization of healthcare services is also cited as one of the cost drivers in the health sector, which ultimately impacts the premiums paid by the members. Providing lower levels of or faulty care to patients also results in wasteful expenditure from the funders' side. Other examples of possible waste include medically unnecessary caesarean sections (C-section) or imaging.

3 The Health Professions Council of South Africa is a statutory regulator of healthcare professions in South Africa.

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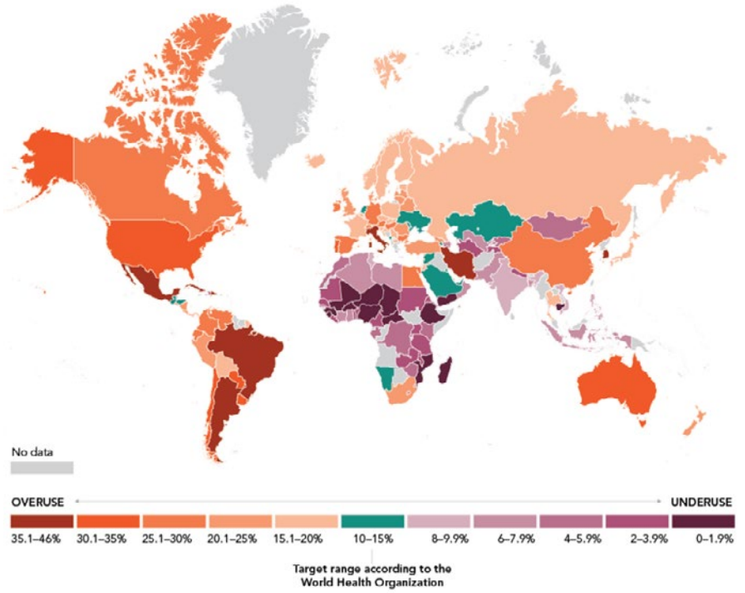

Figure 1. Caesarean sections by country

Source: [11]

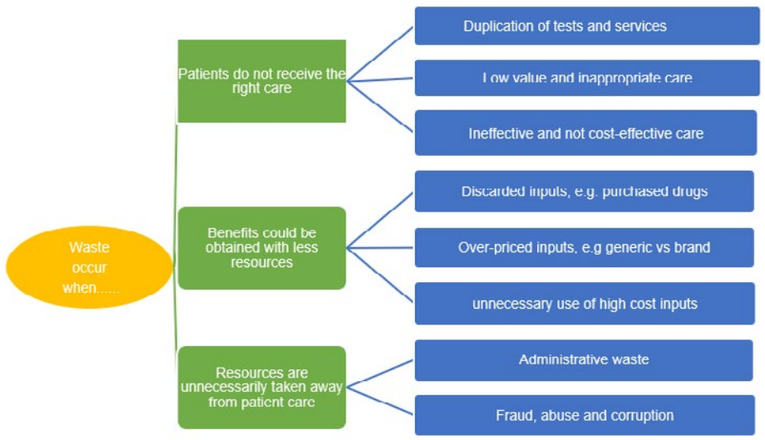

Figure 2. Various categories of waste in health care

Source: [4]

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The C-section rate in South Africa is higher than the WHO's recommendation at about twenty-six percent (26%) [1]. In the private sector, the C-section rate is three (3) times higher when compared to the national rate at more than seventy-seven percent (77%), which is significantly higher than the recommended rate [2]. The recommended rate of Caesarean sections is around ten to fifteen percent (10% -15%) of all births. A study by Manyeh argued that the increase in the C-section rate in developing countries has not been clinically justified and that these increasing trends have become a major health issue, due to potential maternal and perinatal risks, inequality of access and the costs involved [3].

Waste and inefficiency occur at every level in a health care system; waste also includes unnecessary procedures done on patients. Other examples include instances where repeat tests on the same patients are done by several providers but billed separately. This could be avoided if the various medical providers in the value chain could access the same patient records for clinical decision-making. Thus, there is value in investing in a healthcare delivery model that is not fragmented and encourages care co-ordination.

According to Albejaidi and Nair, failures of care co-ordination typically occur when patients experience care that is fragmented [4]. Other examples include poorly managed care co-ordination which may result in a patient being referred from one health care setting to another. Figure 2 below depicts various categories of waste, as defined by Albejaidi and Nair [4].

One of the highlighted categories which are frequently prevalent in an uncoordinated health system is typically where patients' records are not stored in a central secure data repository. As a result, duplication of services, tests and procedures are done more frequently than is clinically necessary.

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References

1. World Health Organization: Monitoring emergency obstetric care: a handbook. 2009.
2. Council for Medical Schemes. CMS Annual Report 2018-2019, 2019, www.medicalschemes.com/Publications.aspx.
3. Alfred Kwesi Manyeh, Alberta Amu, David Etsey Akpakli, John Williams & Margaret Gyapong. Socioeconomic and demographic factors associated with caesarean section delivery in Southern Ghana: evidence from INDEPTH Network member site. BMC Pregnancy and Childbirth volume 18, Article number: 405 (2018).
4. Albejaidi and Nair, American International Journal of Research in Humanities, Arts and Social Sciences, 18(1), March-May 2017, pp. 01-09.
5. Bidzha, L.., Greyling, T., Mahabir, J. Has South Africa's Investment in Public Health Care Improved Health Outcomes? ERSA Work. Paper. 663; ERSA: Cape Town, South Africa, 2017; pp. 1–28.
6. Adam C. Uzialko. Artificial Intelligence Will Change Healthcare as We Know It. 2019. Available at: https://www.businessnewsdaily.com/15096-artificial-intelligence-in-healthcare.html
7. Willie M.M, Optimal Use of Telemedicine by Medical Schemes to Manage Chronic Conditions and Educate Beneficiaries. HPCSA National Conference 18 – 20 August 2019. Emperors Palace, Ekurhuleni, Gauteng. 2019.
8. Loh, E. Medicine and the rise of the robots: a qualitative review of recent advances of artificial intelligence in healthBMJ Leader 2018;2:59-63.
9. Bali, J., Garg, R., Bali, R.T. Artificial intelligence (AI) in healthcare and biomedical research: Why a strong computational/AI bioethics framework is required? Indian J Ophthalmol. 2019; 67:3-6.
10. Jiang, F., Jiang, Y., Zhi, H., et al. Artificial intelligence in healthcare: past, present and future Stroke and Vascular Neurology 2017. https://www.businessnewsdaily.com/15096-artificial-intelligence-in-healthcare.html
11. Lisa Morgan.Artificial Intelligence in Healthcare: How AI Shapes Medicine. 2019. Available at https://www.datamation.com/artificial-intelligence/artificial-intelligence-in-healthcare.html
12. Micah AE, Chen CS, Zlavog BS, et al.Trends and drivers of overnment health spending in sub-Saharan Africa, 1995–2015 BMJ Global Health 2019.10.25
13. South African Competition Commission. Health Market Inquiry. FINAL FINDINGS AND RECOMMENDATIONS REPORT. Pretoria: Competition Commission; 2019.

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Youth in the Health and Social Care Sector, challenges and opportunities

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Background/introduction

The Sustainable Development Goals (SDGs), established by the United Nation (UN), aim to address global challenges worldwide to achieve a better and sustainable future for all [1]. Goal 3, "Good health and well-being", aims to ensure healthy lives and promote well-being at all ages [2]. It also aims to achieve universal health coverage (UHC), and provide access to safe and effective medicines and vaccines for all. UHC aims to leave no one behind and ensure that health services are available, accessible, acceptable and served in high quality for everyone across countries [3].

The active engagement of young people is imperative to achieve Sustainable Development Goals (SDGs). In 2019, more than 3.8 billion people (49% of the world population) are under the age of 24 years, and 2.4 billion (32%) are between the ages of 10-24 [4]. The distribution of this youth bulge is especially important, with nine out of ten young people live in low and middle income countries [5]. While a youth bulge is often seen as a challenge, it also creates an opportunity for a demographic dividend, a relative myriad of working-age people which could lead to higher productivity, positive impact on economic growth, political stability and social and sustainable development. However, the ability of countries in harnessing demographic dividend depends on their investment in the workforce, particularly in youth. Investing in quality education, decent employment opportunities and health and wellbeing of young people, will enable them to develop skills and values that positively contribute to economic growth and sustainable development of their community [6].

The Global Health Workforce Network (GHWN) Youth Hub, established in 2017, aims to promote youth engagement in the health workforce agenda, strengthen data and evidence on education and youth employment issues in health and social care and facilitate inter-professional collaboration to address these. The Youth Hub was created by the World Health Organization (WHO), as an intersectoral, inter-professional community of practice to drive youth-inclusive policy locally, nationally, regionally and globally.

Findings from the Youth Hub paper

This paper describes findings from the rapid review [7] conducted by the Youth Hub on youth and decent work in the health and social care sector. The review was designed to give a rapid assessment on existing research, and focused specifically on decent work including equal opportunities and treatment in employment, safe work environments and social security/adequate earnings. In addition, gender equality was included as a cross-cutting theme [8].

There were a number of pertinent findings from the review, shedding new light on youth employment in the health workforce. In terms of equal opportunities and treatment, a number of barriers were identified that influenced youth occupational decisions, including issues of work-life balance, inadequate mentorship and occupational segregation. Experiences of gender (and other) stereotyping, bias, discrimination and violence in the health and social care workforce begin in training programmes and are experienced with staggering prevalence by young and newly qualified workers. Findings on safe work environments revealed higher rates of burnout for young health workers and students, and alarmingly high rates of violence including verbal, psychological, physical and sexual violence. Social security and adequate earnings emerged as an important determinant of youth wellbeing in the health workforce, with students and new graduates across professions often carrying large debts from their training.

The review also revealed significant research gaps in the topic of youth in the health workforce. The literature identified was not sufficiently diverse to give an assessment of the challenges faced globally. Existing literature is focused on high-income countries, and largely on health disciplines such as nursing and medicine as opposed to social work and other allied health, community health workers, and other social care occupations. The vast majority of the literature retrieved described, analysed and explored the challenges present for youth and decent work in the context of the health and social care sector; there was less focus on solutions, interventions and best practices – in particular, organizational or system-level interventions or programmes.

Proposed Solutions

The challenges facing youth in the health workforce are significant. Closing the predicted 18 million health worker gap [9] by 2030 will require significant and strategic youth-responsive investments at the national, regional, and local levels. Firstly, ensuring decent conditions for work and study is essential to recruit and retain youth into the health and social care sectors. This includes addressing financial hardship as a significant factor for early attrition and migration of young health workers. Secondly, interventions, employment strategies and policies for young workers must use gender-transformative and intersectional approaches to ensure equitable impact and reach. This includes widening the youth health workforce research agenda to highlight the issues in low- and middle-income countries where shortage of health workers, higher disease burden, higher youth unemployment rates, and the largest population of youth reside. All of the above solutions must take a health systems approach that includes organizational interventions, not only individual interventions targeting youth workers. Lastly, meaningful youth engagement mechanisms must exist at local, regional, national and global level on decent work agendas, including both programme planning and policy-making. Students and early career professionals need to be at the decision-making table for effective policy-making on human resources for health.

Conclusions

Meaningful youth engagement is required to achieve Sustainable Development Goals (SDGs). Ensuring decent working conditions is essential to recruit and retain youth into the health and social care sector. Barriers to retention and factors that lead to mi-

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gration of young health workers should be identified and considered by policy makers through youth engagement.

The findings from the rapid review will be used to advance youth-responsive workforce action and support the substantive work of the Youth Hub. Effective and strategic youth-inclusive policies will have sustainable effects on Sustainable Development targets. Not only will these policies support the challenges facing global health today, but they will also yield impact far into the future for youth and for the health of populations.

References

1. United Nations Sustainable Development (2019). About the Sustainable Development Goals - United Nations Sustainable Development. [online] Available at: https://www.un.org/sustainabledevelopment/sustainable-development-goals/ [Accessed 12 Oct. 2019].
2. United Nations Sustainable Development (2019). Goal 3 .:. Sustainable Development Knowledge Platform. [online] Available at: https://sustainabledevelopment.un.org/sdg3 [Accessed 12 Oct. 2019].
3. World Health Organization (2019). Universal health coverage (UHC). [online] Available at: https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc) [Accessed 12 Oct. 2019].
4. World Bank (2019). Health, Nutrition and Population Data and Statistics, World Bank. [online] Datatopics.worldbank.org. Available at: http://datatopics.worldbank.org/health/population [Accessed 12 Oct. 2019]..
5. Gupta, M. D. (2014). The Power of 18 Billion: Adolescents, Youth, and the Transformation of the Future. The State of World Population.
6. United Nations Youth (2019). Youth and the 2030 Agenda for Sustainable Development | United Nations For Youth. [online] Available at: https://www.un.org/development/desa/youth/world-youth-report/wyr2018.html. [Accessed 12 Oct. 2019].
7. World Health Organization (2019). Youth and decent work in the health and social care sector [online] Available at: https://www.who.int/hrh/network/YouthPaper-PS-SR_23May2019.pdf [Accessed 12 Oct. 2019].
8. International Labour Organization (2019). Decent work. [online] Available at: https://www.ilo.org/global/topics/decent-work/lang--en/index.htm [Accessed 21 Oct. 2019].
9. World Health Organization (2019). Call to action: Addressing the 18 Million Health Worker Shortfall [online] Available at: https://www.who.int/hrh/news/2019/call-to-action-addressing18million-health-worker-shortfall.pdf?ua=1 [Accessed 20 Oct. 2019].

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Memorandum of Tokyo on Universal Health Coverage and the Medical Profession

Health Professional Meeting (H20), June 14th, 2019, Tokyo

At the Health Professional Meeting (H20) 2019 in Tokyo, the World Medical Association and the Japan Medical Association welcome the efforts by the World Health Organization, national governments, intergovernmental and United Nations agencies as well as other organizations to foster the development of healthcare systems providing Universal Health Coverage (UHC).

We notice that UHC means "that all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship." (WHO definition of UHC)

UHC is a tool to overcome inequities in the health systems themselves.

UHC is for people, but also by people.

Human resources for healthcare in many countries are scarce. We urge all in responsible positions to invest in the education and retention of health professionals to make UHC possible.

This must include quality education, opportunities for continuing professional development and most important safe, dignifying and attractive working and living conditions for those who provide healthcare to their communities and patients.

The WMA encourages physicians and their associations in all parts of this world to play a profound role in the advocacy for and the realization of UHC.

From the side of the medical profession, there should be no hesitancy in embracing the concept of UHC, including a strong engagement for the development of quality primary care as the core part of a comprehensive health system.

We welcome the recent attention that G20 Finance Ministers give to the development of UHC as a contribution "to human capital development, sustainable and inclusive growth and development, and prevention, detection and response to health emergencies, such as pandemics and anti-microbial resistance, in developing countries."

We express our expectation to the G20 Summit that this inspires the way to improved and sustainable investments in healthcare system not only in G20 countries but also and most importantly in other economies, which still invest insufficiently in their healthcare systems, irrespective of the reasons for such shortfalls.

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