G20438

World Medical Journal

Official Journal of the World Medical Association, Inc

Nr. 2, April 2010

vol. 56

- Placebo Controls in Clinical Trials
- The Climate Crisis and Global Health

World Medical Association Officers, Chairpersons and Officials

www.wma.net

Official Journal of the World Medical Association

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Cover painting:
Akseli Gallen-Kallela (26 April 1865 – 7 March 1931) is one of the most famous Finnish artists. His illustrations of the Kalevala, the Finnish national epic, are considered very important for the national identity of the Finns.
In the 1880´s Gallen-Kallela studied in Paris at the Académie Julian, the Atelier Cormon and other schools. There he painted Mother with her sick child (1888). Now this painting is one the treasuries of the art collection of the Finnish Medical Association.

Publisher
The World Medical Association, Inc. BP 63
01212 Ferney-Voltaire Cedex, France

Publishing House
Deutscher-Ärzte Verlag GmbH,
Dieselstr. 2, P.O.Box 40 02 65
50832 Köln/Germany
Phone (0 22 34) 70 11-0
Fax (0 22 34) 70 11-2 55
Producer
Alexander Krauth

Business Managers
J. Führer, D. Weber
50859 Köln, Dieselstr. 2, Germany
IBAN: DE83370100500019250506
BIC: PBNKDEFF
Bank: Deutsche Apotheker- und Ärztebank,
IBAN: DE28300606010101107410
BIC: DAAEDEDD
50670 Köln, No. 01 011 07410
At present rate-card No. 6 a is valid

The magazine is published bi-mounthly.
Subscriptions will be accepted by
Deutscher Ärzte-Verlag or
the World Medical Association

Subscription fee € 22,80 per annum (incl. 7% *MwSt*.). For members of the World Medical Association and for Associate members the subscription fee is settled by the membership or associate payment. Details of Associate Membership may be found at the World Medical Association website www.wma.net

Printed by
Deutscher Ärzte-Verlag
Köln, Germany
ISSN: 0049-8122

Opinions expressed in this journal – especially those in authored contributions – do not necessarily reflect WMA policy or positions

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Editorial

Sports at all ages – for a healthy population

The Vancouver Winter Olympic games are now history. We enthusiastically admired sports such as bobsled, skeleton and acrobatic snowboard – sports in which very few people actually participate. If we regard athletic activity as important for the health of a population, these sports have little meaning given their expense and their unsuitability for children and senior people. Actually, these sports may not be very healthy pastimes.

If we analyze the contribution of sports to the field of health promotion, popular sports such as hockey, football, and baseball fall short. Millions of dollars are spent to support these activities, but the greatest "benefit" for these sports is to the viewer sitting in front of a television set with a beer in his hand. From the national point of view in the 21st century we should value a sport first by its contribution to health.

As physicians we should encourage physical activity and sports participation. It is estimated that about 250-350 kilo-calories per day, or 1000-1500 kilo-calories per week, are expended during exercise that is intensive enough to cause perspiration. People should participate in physical activities or sports five times a week. To motivate people who do not exercise, one can recommend activities such as climbing stairs, walking fast, working in the garden and dancing. Walking 8000 to 10,000 steps a day, even going back and forth to office, is beneficial.

Moderate athletic activity helps prevent illness, so it has an important role in primary, secondary and tertiary health care fields. Basically, we recognize sport as a primary care resource in the population because an active lifestyle lengthens life expectancy, diminishes morbidity, decreases risk of chronic disease, rises work productivity and noticeably promotes general economic and social development of the country.

As a secondary prevention tool we know that adequate and purposeful physical load reduces episodes of illness and lengthens remission periods.

In tertiary prophylaxis, sport is an important component in the rehabilitation process of successfully treated patients. Sport and physical exercises are widely used to avoid coronary and blood vessel incompetence after operations, as well as to prevent the development of secondary pneumonia or decubitus ulcers. Athletic-type activities help to improve lymphatic flow, venous circulation, healing of the bones and soft tissues.

In the 19th century, as well as during most of the 20th century, lack of movement was not recognized as a disease risk factor. Active movements were even considered to delay or interfere with the healing process. During the first three quarters of the 20th century confinement to bed was standard treatment for many medical disorders. Only research conducted toward the end of 20th century has proven that there is an inverse correlation between movement activities and certain diseases.

Regular physical activity helps prevent cardio-vascular disease, as well as improves treatment results for patients who already have illnesses. Physical activity directly and protectively limits the development of atherosclerosis, including coronary artery disease. Moderate exercise also has an indirect influence on the profile of the risk factors of cardio-vascular diseases. Physical activity reduces plasma LDL (low-density lipoprotein) cholesterol and triglycerides, improves plasma HDL(high-density lipoprotein) cholesterol diminishes adiposity and lowers blood pressure. Several studies have shown that physical activity lowers the risk of non-fatal coronary disease and death.

Regular physical activity has been shown to diminish the incidence of cancerous diseases. It is thought that immunological factors may be important in the prevention of oncologic processes. Several studies have shown that effective physical load suppress the malignant processes in the body. Physical activity seems to diminish the growth of malignant cells and may even create tumor-lysis. Sometimes the severity of the oncology disease is determined by side-effects, such as anemia, diarrhea, immunosupression, and fatigue, which actually are the most common symptoms of oncologic diseases. Proper physical therapy during chemotherapy and beam therapy, especially at the end of the therapy course significantly decreases these side effects. Daily stamina training for cancer patients increase their joy

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of living and increases their level of activity, thereby lessening the psycho-motor stress level and decreasing side-effects.

Physical activity decreases insulin resistance and the disturbances of dextrose tolerance, as well as post-prandial hyper-glycemia. Likewise, physical activity together with weigh loss diminishes the incidence of new II type diabetes in a population that is at high risk for developing diabetes.

Sport has a very important role in the management of depression and other mental illnesses. Exercise has an anti-depressive influence. Any physical activity seems to be effective in the fight against depression.

There is no age limit concerning sport activities. Several studies have proved that purposeful training of old people in cycling sports increases muscle mass, diminishes adiposity, normalizes blood pressure, lessens the "number of falls", and improves bio-chemical blood indicators.

Those who are taking exercises regularly, even in the age groups of 80-90, usually do not need social services and tend to live longer, more valuable lives, both physically and mentally.

In all countries where senior sport has been given priority by the public health specialists, there has been enormous resistance from the politicians, clerks, journalists, and sport experts. These people have the common opinion that the main priority in preventive health belongs to children and youth - to ensure good health of the young. They propose that when these young people will grow up they will continue their sporting activities and, therefore, will later turn into healthy seniors.

Sports medicine as a branch of medicine is acknowledged today in several countries. These doctors are important in promoting public health through exercise. Our goal is: a healthier mankind. To reach this goal I would encourage each of you each start with yourself -just five times a week engage in some type of active exercise. Even in the *World Medical Journal* we need to speak about the necessity of acknowledging sport as a component of preventive medicine.

Pēteris Apinis, MD

Exploring Sustainable Systems to Document Torture – the Role of Health Professionals

Clarisse Delorme

Impunity is still the biggest impediment to the prevention of torture. Insufficient investigations and persistent challenges in the collection of evidence are significant factors in the absence of action taken against perpetrators of torture.

The issue of how to promote and institutionalise the forensic documentation of alleged cases of torture was the subject for a panel of renowned experts gathered in Geneva on the 9th of March, chaired by the UN Special Rapporteur on torture, Professor Manfred Nowak. The event, hosted by the World Medical Association (WMA) and the International Rehabilitation Council for Torture Victims (IRCT), took place in conjunction with the 13th regular session of the UN Human Rights Council in Geneva. The panel included Marija Definis-Gojanovic, member of the UN Subcommittee for the Prevention of Torture, as well as representatives from the Turkish and Danish Medical Associations, the academic community and of the Association for the Prevention of Torture.

With nearly 60 participants from governments, NGOs, the academic community, UN agencies and health professional organisations, this successful event demonstrated high interest in the subject. During the discussion, several recommendations related to medical training advocacy and the need for sustainable procedures were being made. In particular, the cooperation among the various stakeholders within the judicial system and with the health professional associations was deemed necessary (see the proposals in the separate box).

Many of those recommendations echo Professor Nowak's latest report to the Human Rights Council, in which he wrote that "All too often, the safeguards required by international human rights law are neither foreseen nor effective in preventing torture." He added that "Forensic medical science is a crucial tool since it can establish the degree of correlation of the medical findings

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Proposals made during the discussion at the IRCT-WMA side-event "Exploring sustainable systems to document torture – the role of health professionals"

Developing training for health professionals

- Increasing the number of forensic medical specialists worldwide to adequately cover the need of documenting incidences of torture.
- Developing training of non-forensic physicians in examining detainees and alleged victims of torture.
- Addressing the challenges for doctors working in the prison system that are isolated and do not always have the appropriate training.
- Developing proposals for streamlining torture prevention into medical education. National medical associations can play a leading role in training physicians, as the example of the large scale training of 4000 physicians in Turkey shows.

Advocating for the implementation of international instruments for the prevention of torture

- Developing multidisciplinary actions for the implementation the UN Convention Against Torture and its Optional Protocol, the international standards of the Istanbul protocol on documenting and investigating torture, as well as the WMA medical ethics guidelines on the role of health professionals in preventing torture.
- Increasing the involvement of health professionals in National Preventive Mechanisms put in place under the OPCAT.

Developing sustainable and systematic procedures for torture prevention

Some basic steps can be taken by all countries in order to support the prevention of torture particularly in detention. Such procedures should include:

- Compulsory medical examination in confidentiality by forensic experts that should report directly to relevant authorities
- Guaranteed confidentiality of those medical examinations
- Introduction of systematic examination of detainees before and after transfer, as a preventive measure
- Development of independent mechanisms for systematic reporting of report torture

Ensuring that domestic actors in the governmental and non/governmental sector are working together

- Involvement of a multitude of stakeholders - governmental and non-governmental as well as legal, medical and other relevant experts - need to work more closely together in strengthening independent investigation and monitoring systems.
- A positive and collaborative attitude by all stakeholders, including health professional associations, involved in the administration of justice

with the allegations brought forward and therefore provide evidence on which prosecutions can be based." (A/HRC/13/39, 9 February 2010, parag. 55).

"This event is a follow-up to the 2009 Human Rights Council resolution on the role and responsibility of medical and other health personnel in the prevention of torture." said Dr. Dana Hanson, President of the WMA. He continued, "The WMA has a clear and long-standing commitment in condemning all forms of doctors' involvement in acts of torture. But it is also an absolute ethical duty for the medical profession to document torture and to denounce it. In that sense, physicians can and do prevent torture, but more must be done in collaboration with other relevant actors to eradicate these flagrant human rights violations."

Ms. Clarisse Delorme,
WMA Advocacy Advisor

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Physicians Call for Elimination of Female Genital Mutilation

A call to eliminate female genital mutilation as a gross form of violence against women has come from the World Medical Association (WMA) and the International Federation of Gynaecology and Obstetrics (FIGO).

To mark the international day of Zero Tolerance to FGM (February 6), the two organisations, representing millions of physicians and 124 obstetrical and gynaecological associations worldwide, strongly condemn the medicalisation of female genital mutilation.

Professor Gamal I. Serour, President of FIGO, said: 'Death, severe pain, haemorrhage, tetanus, sepsis, recurrent urinary tract infections, pelvic inflammatory disease, infertility, increased complications of subsequent pregnancy and childbirth as well as adverse psychological and sexual effects are just a few examples of its extreme consequences. The practice of FGM violates human rights principles.'

He said that according to a recent World Health Organisation report on women and health there had been a small decrease in the extent of FGM in recent years, a decline in the average age at which FGM was performed, and a marked increase in the proportion of girls who underwent FGM before the age of five years. The report also said there was a growing tendency for FGM to be carried out by health professionals.

Dr. Dana Hanson, President of the WMA, said: 'The medicalisation of FGM is a matter of deep concern for us. It blatantly infringes the code of medical ethics. Physicians should need no reminding about the acute dangers of FGM for women and girls to discourage them from performing or promoting such practices. They are a violation of women's human rights that physicians and other health professionals should never practice under any circumstances. We would like to see physicians and medical associations taking a more robust stand against these harmful and degrading treatments.'

Professor Serour added: 'Health professionals can play a unique role in working towards the elimination of FGM to ensure that girls and women enjoy the full extent of human rights and freedoms, and are treated with dignity and understanding.'

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Health Professions Consider the Future of Regulation

Nigel Duncan

The way in which the health professions are regulated has become a hot topic in recent years, with the concept of self regulation under the political spotlight as never before. In May 2008 global representatives of the health professions came together under the umbrella of the World Health Professions Alliance to hold a highly successful conference on regulation in Geneva looking at the role and future of health professions regulation.

Following the success of that conference, the Alliance (the International Council of Nurses, the World Dental Federation, the International Pharmaceutical Federation and the World Medical Association) in cooperation with the World Confederation for Physical Therapy, organised a second conference in Geneva in February, focusing on a theme of "Shaping the Future" of regulation.

More than 300 representatives from the five organisations gathered for two days to focus on three main objectives – to explore a desired future for health professional regulation, to examine the regulatory and professional issues related to the international migration of health professionals and to evaluate the relationship between health professional education, regulation and standards of practice.

Speakers from around the world were invited to address these objectives, backed up by workshops and an intriguing survey of participants about the state of regulation today.

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Although the conference did not achieve a consensus, which was not its aim, it proved to be a stimulating two days, highlighting the common problems facing the different health professions and the barriers to the way forward. The main success of the conference was the very fact that it was once again bringing together the representatives of 25 million health professionals to share their ideas and prescriptions on one of the major topics of the day.

The proceedings opened with a stark warning from Ann Morrison, of the International Council of Nurses, that the pressures on the regulatory environment were increasing with self regulation now under mounting threat. She said that with moves away from the "professional elite" to more lay membership, self regulation was too often seen as a self serving or self interested system. The aim of regulating the professions was to find a balance.

With the keynote speaker, Franz Knieps from Germany, unable to attend at the last moment, Dr. Otmar Kloiber, Secretary General of the World Medical Association (WMA), stepped in to speak about the history and complexities of regulation. He said there were many different models of self regulation, such as councils, chambers and private associations, with a wide spectrum of both public and professional functions. In some parts of the world, such as the Nordic countries, co-operative structures had evolved with which all sides were happy. He also reminded the conference that many of the Alliance organisations' constituents were regulatory bodies.

Dr. Kloiber said that the rights and privileges to self govern, usually given by Parliaments to a profession or a group, had to be balanced by duties and obligations. In a democracy, self governance was a matter of power sharing with appropriate checks and balances, although often it was more of a burden than a privilege. The three watchwords were responsibility, transparency and accountability.

During the first day's proceedings, the preliminary results of a survey on regulation were revealed. The survey, the first ever global survey on the subject, was designed to find out about the current regulation of health professionals around the world. It was completed by those attending the conference and gave a snapshot of what is happening now. The full results will be announced in due course.

The preliminary findings, presented by Dr. Paul Rockey, from the American Medical Association, and Luc Besancon, from the International Pharmaceutical Federation, were based on more than 250 responses and revealed the huge variety of different systems of regulation that existed. In the Americas and south east Asia, for instance, self regulation was much more common than in the rest of the world. The survey showed that registration and discipline were the two most common activities of the regulators, followed by investigation and recertification. The survey also examined the differences in regulation between federal and non federal countries and also whether income levels in a particular country materially affected what system of regulation existed.

Dr. Rockey said that what he took away from the early findings was that the complexity of regulation was much greater than he had thought. He was surprised by the diversity of systems and said the results showed little signs of any rapid move towards harmonisation.

Looking ahead to possible reforms, Dr. Ambrose McLoughlin, Registrar and Chief Executive Officer of the Pharmaceutical Society of Ireland, said that the European Union had established effective regulatory regimes for civil aviation, for food safety and for maritime safety. But patient safety had yet to be properly addressed. Now was an opportune time for health systems to look at their obligations to patients. A major weakness in the current system was that there was no formalised structure at EU level providing for collaboration between regulators of health personnel and services. What was required were global regulatory collaboration and the creation of a patient safety authority.

Jan Robinson, Registrar and Chief Executive Office of the College of Physiotherapists of Ontario, Canada, said there had been an increasing disintegration of public trust in health professionals and the conventional understanding of the social contract between regulators, professions and the public was no longer of primary relevance in the 21st century.

Dr. Christine Cassel, President and CEO of the American Board of Internal Medicine, said that for physicians in the United States there was a mass of bodies holding them to account. It was completely chaotic and there was no coming together.

Dr. Mukesh Haikerwal, from the Australian Medical Association, spoke about e-health in Australia and the role it was playing in addressing inequities in access to care, while Ivana Silva, from the Pharmaceutical Group of the European Union, provided an overview of the main issues around the migration of pharmacists in the EU. Dr Florent Aka Kroo, from the Ordre National de Medecins in Cote d'Ivoire, spoke about the harmonisation of GPs' training curricula in his country and the standardisation of qualifications.

The second day's debate opened with a discussion about evaluating the relationship between health professional education, regulation and standards of practice. Dr. Michael Maves, CEO of the American Medical Association, spoke about the attempt by some health professions in the USA to expand their scope of practice. There had been an increase in nurse prescribing, and of podiatrists and optometrists doing surgery.

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The result was that there was a great deal of confusion in his country about who was a physician. The AMA's response had been to convene the Scope of Practice Partnership, a forum where organised medicine discussed legislative, regulatory and judicial strategies emphasising health care practitioners' education and training.

Lesley Bainbridge, Director of Interprofessional Education in the Faculty of Medicine at the University of British Columbia in Vancouver, Canada, said one of the primary drivers of interprofessional collaboration was patient safety. Yet the barriers to effective teamwork continued to impede a global shift to collaborative practice models. She said it was important not to ask practitioners to work outside their scope of practice. This was echoed by Dr. Jon Snaedal, past President of the WMA, from Iceland, who spoke about the various types of teamwork and the difficulties involved in achieving successful teamwork as a result of turf war and professional rivalry.

The final part of the conference involved participants dividing up into profession-based group discussions. Although the feedback from each group indicated that there was little consensus or conclusions from these workshops, the debates were often spirited. The speakers who reported back from the workshops effectively summed up the outcome of the whole conference when they said that discussions tended to raise more questions than answers.

It will now be for the WHPA and the organisers of the conference to assess the success of the event and to decide what further action is now required.

Mr. Nigel Duncan, WMA Public Relations Consultant

Revolutionary Transplant in University College London – a world first

European colleagues from surgery and laboratory achieve a remarkable breakthrough

A child aged 10, suffering from Long Segment Tracheal Stenosis, has had a donated trachea implanted, stripped of its cells transplanted and then applied with two types of stem cells from the child's marrow and growth factors onto the implanted stripped tracheal framework to rebuild the airway in the body...

The trachea and the stem cells were prepared by Dr. Mark Lowell, Director of Cellular Therapy at the Royal Free Hospital, the Surgical team implanting the new trachea and repairing the damaged aorta was led by Professor Martin Elliot University of London (UCL) and Great Ormond Street Hospital(GOSH), Professor Paolo Macchiarini Careggi University Hospital and Hon Consultant GOSH and Hon Professor UCL applied the cells and growth factor to the trachea in the operating theatre, Professor Martin Birchall,UCL lead for regenerative medicine led on ethics and regulatory approvals.

Professors Birchell and Macchiarini achieved the world's first stem cell-based organ transplant on an adult patient, in 2008. Professor Birchell's research programme with Professor Elliott includes the absorbable stent used in this 10 year old patient.

The application of this technology should reduce greatly the risk of rejection of the new trachea as the child's stem cells will not produce any rejection.

http:/www.ucl.ac.uk/news/news-articles/1003/10031903
(accessed 22.03.2010)

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Pfizer Launches Speaking Book in China on Dangers of Smoking

The WMA endorsed programme to support critical health care education to the most at risk communities, saw the launch of the latest in the series of Speaking Books for low literacy communities, in Beijing, focusing on the inherent risks of smoking.

Smoking has been identified as the single most serious public health threat to China, and if the country does not do more to reduce tobacco use, smoking deaths will double to two million per year by 2020, health experts predict

A speaking book is an interactive book which consists of 16 pages of colorful illustrations supported by straightforward and easy to understand text. For each page there is a corresponding push button that triggers a sound track of the text, so no matter the level of reading comprehension, the information will be seen, read, heard and understood with powerful results.

The Chinese Speaking Book, "Stay Healthy By Not Smoking" is aimed at school children and tells the story of one young boy's struggle to stay healthy in a household where the father is a heavy smoker. It encourages the family to declare their house a smoke free zone and for the father and his friends to attend a smoking cessation clinic. The book has been developed in a partnership between WMA, Pfizer, CDC Beijing, CMDA and Chinese Association on Tobacco Control.

The launch was attended by senior representatives of Chinese Ministry of Health, Chinese Health Education, Center for Disease Control, Chinese Association on Tobacco Control, Chinese Medical Doctors Association, the Chinese media, school children and their teachers, as well as Pfizer executives from both the USA and China.

Following the launch the books are now being donated to schools and medical clinics in the Beijing area, as well as for distribution by all the supporting agencies that assisted in the creation of the book and attended the launch.

Based on previous experience (and research where an average of 27 users per book were observed) this initial pilot of 5000 books being distributed is likely to reach and impact on 50,000 to 100,000 or more people, at risk from smoking.

Dr. Soeren Rasmussen, Senior Director External Medical Affairs and representing Pfizer at the launch, says that this pilot is just the first step in what should become a much larger intervention to educate the young on the dangers of smoking. Dr. Rasmussen firmly believes that a distribution of many more books could make a significant and measurable change in the smoking habits of that community. "Reducing tobacco usage in China is a huge challenge, and we believe by educating young children with these innovative Speaking Books, we can make a real difference", he says.

Brian Julius, President, Books of Hope

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Accountability and Transparency: Two Pillars of the Health Professions in the 21st Century

Christine K. Cassel

The World Health Professions Conference on Regulation met for the second time in Geneva on February 17 and 18, 2010. The growing interest of health professions in the importance of setting standards in the public interest is evidence of consistent pressure from countries worldwide for more transparency and public engagement in improving the quality of health care. In many countries, government has a major responsibility for financing of health care and, in some cases, aspects of the delivery system. Other countries are much more heavily based on the private sector model. All are beginning to ask questions about how, in an era of increasing medical technical capabilities and with increasing costs, governments can obtain the highest quality care for the money spent. Private consumers who pay for healthcare face the same challenge, perhaps even more intensely, because of the impact of the cost of care on their own finances. Some countries have been energized to examine the issue of standards even more aggressively because of very public scandals involving specific incompetent practitioners, a general diminishment of confidence in the profession, or lack of access to needed care. Regardless of the issue driving these pressures, there is no doubt that they will continue and are likely to increase and accelerate.

I would like to draw your attention to a model that is working well in the United States that is not government-run or even government-mandated. This model is an example of the profession as a standard setter based on its own deep knowledge and expertise from training in specific areas – reflecting that expertise in standards, but functioning very clearly in the public interest rather than the self-interest of physicians. I endorse the sense of urgency that has emerged from other presentations in this program and believe that it is reflected in the growing interest in the specialty-based standards model that board certification embodies from countries around the world.

Specialty boards are independent not-for-profit entities constituted by each functioning specialty acting "of the profession and for the public." Interestingly, they are independent in several dimensions.

First, they are independent of government – they have a special status as tax-free organizations in the United States, and to maintain that status they must show that they are operating in the public interest and not for financial gain. Secondly, they are independent of membership pressures. The boards' (many of which have public members as well as members of the profession) financial model is based on fees that the diplomates who are certified pay for the assessment process and for the maintenance of the certification records within the organization. Specialty boards do not have members in the way that a membership organization does; they do not serve the functions of membership organizations, such as advocacy on behalf of the specialty or educational services provided to the professional. Lastly, boards are independent of industry influences and are very careful to maintain a financial model that does not in any way involve potential conflicts of interest.

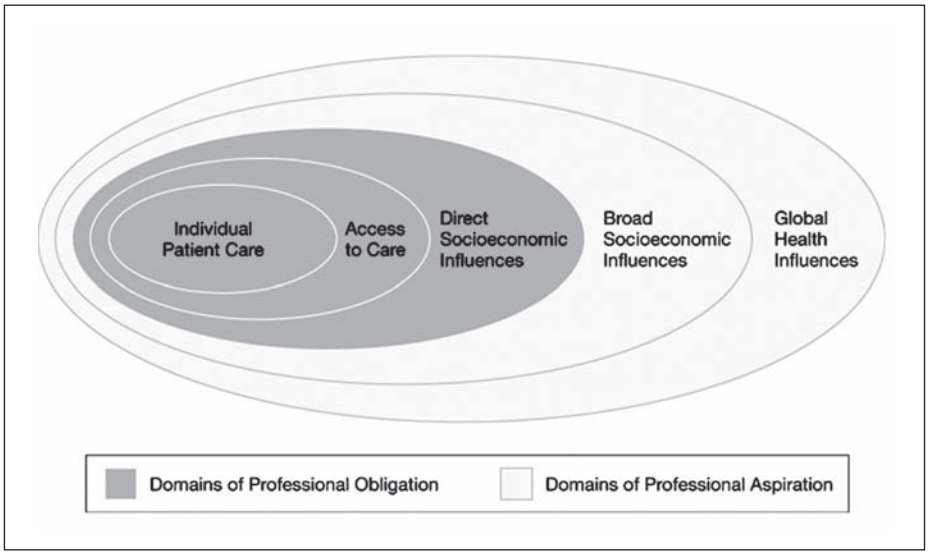

Figure 1. *Model of Physician Responsibility in Relation to Influences on Health.*

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It is important to understand that specialty board certification is also a voluntary model – it is an indication of professionalism driving a physician's interest in doing the work necessary to achieve and maintain this credential. While it is voluntary, a very large majority of physician specialists in the United States are board certified, indicating that the credential is valuable to them and valued by them. The voluntary model also allows for a higher standard to be set and sustained.

Figure 1 identifies an ethical model of physician responsibility in relation to influences on health that grew out of work done by Richard Gruen, an Australian Harkness fellow, during his time of study at Harvard with colleagues there[1]. He identified the direct areas of physician responsibility to be individual patient care, access to care and direct socio-economic influences that affect health, such as diet, nutrition, smoking, etc. Poverty may fall into this area as well as into the broader influences on health, both socio-economic and global health issues. Gruen and colleagues have identified all of these arenas as legitimate concerns for the medical profession but have singled out the first three as the specific domain where professionals are obligated to focus their concern by virtue of the ethical traditions of the profession. This is a much broader concept of medical ethics than that derived from the ancient historical texts of Hippocrates, Maimonides and other still important core codes to which our profession adheres. Gruen's work was based on a Physician Charter developed in collaboration among the American College of Physicians Foundation, the American Board of Internal Medicine Foundation and the European Federation of Internal Medicine and published in 2002 simultaneously in *Lancet* [2] and the *Annals of Internal Medicine* [3]. Since then it has been published in numerous other journals, endorsed by more than 130 medical organizations throughout the world and translated into at least 10 different languages. This charter took as its core principle the primacy of patient welfare, which is consistent with the ancient and venerable texts of medical history, and it added two additional principles: patient autonomy and social justice, both of which are reflective of the context of the profession and its expanding role in the 21st century. Derived from the fundamental principals are 10 commitments, listed in Figure 2.

A Commitment to:
- professional competence
- honesty with patients
- patient confidentiality
- maintaining appropriate relations with patients
- improving quality of care
- improving access to care
- a just distribution of finite resources
- scientific knowledge
- maintaining trust by managing conflicts of interest
- professional responsibility

Figure 2. *The Physician Charter.*

In the United States the charter is widely used in teaching and in the matriculation and graduation ceremonies of medical students and is often reviewed in discussions of medical ethics. Indeed, it was the subject of research by Campbell and colleagues[4] where physicians throughout the United States, in multiple specialties, were asked whether they agreed with these 10 commitments. The researchers found that there was widespread agreement with the principles espoused, but when physicians were asked whether they behaved in accordance with those principles their own self-reports indicated a huge gap between the ideal ethical behavior and the actual behavior. One example concerns the responsibility of physicians to report instances of significantly impaired or incompetent colleagues in which 96% of physicians responded that they had an obligation to report impaired or incompetent colleagues to relevant authorities, and yet fully 67% (two-thirds) said that within the last three years they had had direct knowledge of an incompetent physician colleague and had not reported that individual to appropriate authorities.

Similarly, 77% of physicians said that they should undergo recertification examinations periodically throughout their careers, but only 33% had done so within the last 3 years. This type of evidence has led to increasing public awareness of the need for greater transparency and greater scrutiny of the profession. Indeed, even we physicians have joined the call for greater accountability.

In the United States there are three key types of physician organizations. One is medical societies – colleges, academies and associations, many of which are based on specific specialties and which physicians join as members and pay dues. These organizations promote education and provide continuing professional development, develop evidence-based clinical guidelines in their specialty, and often publish medical journals. In many cases they also are advocates for specific approaches to payment for that specialty and other legislative or political issues that affect their practice and economic situations.

A second group are licensing boards. These boards are run separately by the many states in the U.S., similar to other federated models in Canada and countries that have a provincial or state-based government in addition to a national government. These licensing boards are also not-for-profit organizations, but are appointed – usually by political forces, primarily a state governor or legislature. Each state's licensing board issues and regulates the license, so criteria vary from state to state. The license is legally required for a physician to practice and is often based on credentials or exams at a very basic level – and not at a specialty level. In order to maintain the license the physician must be free of any disciplinary actions, must pay a fee every 2-3 years and

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usually must maintain some kind of records documenting that he or she is engaged in continuing medical education activities.

The third group are certifying boards – independent, voluntary, national not-for-profit standard-setting organizations that develop assessment tools. These tools, including examinations, are specific to specialties so a physician is able to say that he or she is a "board certified cardiologist" or "board certified ophthalmologist." Requirements for certification are standard for all participants, so "board certified" means the same thing in Kansas as it does in California.

A recent article in the *Journal of the American Medical Association* compared the recertification processes in the United States, Canada and the United Kingdom and identified the varying roles of government oversight and independent physician oversight in these three countries[5]. All of the countries are in active discussions about the need for certification to be an ongoing and periodically renewed credential indicating that the physician is keeping up to date with the field and, in many cases, also including assessment of communication skills, professionalism and performance in practice.

You may wonder how these standards can work if not required. My view is that physicians are inherently driven by interest in the public good, and the more the profession itself sets high standards the more rewarding that public interest becomes. Physicians also tend to be high achievers and inherently competitive. When board certification was first introduced in the United States a much smaller percentage of specialists sought it out; as it became increasingly recognized, physicians who saw their colleagues becoming certified also wanted to achieve that level of recognition by their peers. Because it is independent and evidence-based, the assessment also has credible research behind the tools that it uses[6]. Information about whether a physician is board certified is freely available to the public on the web, which responds to a very important need for greater transparency and availability of information to the public. It also creates a marketplace where external entities, if they so chose, can set a value on physicians meeting these standards. This could apply to insurance companies or to employer requirements. Increasingly, as mentioned, there is a call for greater public input into these standards and many boards have developed ways of doing so ranging from public members directly on the certifying board or various approaches to public advisory groups.

It remains a question whether this model, which has grown up over almost the last 80 years in the United States, could work in other countries. We believe the potential is there for at least some aspects of this approach to have relevance elsewhere. Over the past five years, we have received a growing number of requests from a wide range of countries throughout the world to learn more about our process and to consider adopting parts of the process for their own healthcare systems. It is also the case that biomedical science is a universal language, and most physicians base their work and practice on the same body of knowledge. Thus, consistent standards are a reasonable thing for people to expect, especially in a world with increasing medical tourism – destination medical centers throughout world – and more widespread travel by medical professionals themselves.

In conclusion, I believe that professional responsibility combines both identifying and remedying ethical lapses in our profession and also includes raising the bar of competence. Together with public voices this can lead to greater public confidence and to a response that gives specialists the measures and tools for quality improvement which will benefit all of us.

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Placebo Controls in Clinical Trials

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The use of placebo controls is one of the key issues in contemporary ethics of biomedical research. Ever since critics in 1994 claimed that certain clinical trials would violate paragraph 29 of what was at that time the current version of the Declaration of Helsinki, this paragraph has remained the focus of the debate on this subject [1]. In 2002, the WMA added a highly controversial Note of Clarification to this paragraph (which appeared as a footnote in the document). In 2008, the Note was modified and incorporated in the main body of the text in §32 of the version adopted that year. This remains the current version of the Declaration of Helsinki. It requires that a new intervention must be tested against the best current proven intervention, but provides for exceptions when two conditions are fulfilled: when there are "compelling and scientifically sound methodological reasons" and provided that "patients who receive placebo or no treatment will not be subject to any risk of serious or irreversible harm". However, differences and contradictions between this and other ethical or legal regulations[1] (such as those by CIOMS, the Council of Europe, ICH etc.) remain, and there persists disagreement by some critics who ask for a total ban of placebo control if a proven intervention exists. This is a complicated and unfortunate situation creating uncertainty among researchers, research sponsors and members of ethics committees. In an effort to move closer to a resolution of this situation, we will analyse three aspects of the problem: the scientific and methodological aspects, the problem of weighing individual risks and burden to social benefits, and finally the question of research in resource poor settings.

Arguments from science and the methodology of clinical trials

The opposite extreme positions in this context would be that 1. placebo is always required for methodological reasons to provide comparative evidence for the effectiveness of a new intervention [2] or 2. there is never a methodological necessity to use placebo instead of an active comparator [3]. The Declaration of Helsinki already covers a middle ground between these positions, as do some other commentators or guidelines, contending that there are in certain circumstances "compelling and scientifically sound methodological reasons" for placebo controlled trials (PCTs) when there already exist proven treatments. What could be such reasons? The related arguments reach from very detailed assumptions about the placebo effect to general statements on scientific progress and what is of real interest for medicine.

The main controversial issues between the opposed positions are:

1. Whether only placebo controls can provide a reliable reference point in a clinical trial, or whether they cannot, because the placebo effect itself is subject to a high variability[3].
2. Whether active controlled trials (ACTs) often lack the ability to distinguish an effective from a non-effective treatment ("assay sensitivity")[4] in many conditions (e.g. depression), or whether ACTs can avoid this and other methodological problems including statistical significance.[5]
3. Whether the important relevant knowledge to be sought from a trial is whether an experimental intervention is superior to placebo[6], or, alternately, whether it is superior or at least non-inferior to an existing treatment option.[7]

The main problem in this context is to provide convincing empirical evidence for the different claims on the placebo effect and

[1] Our aim in this article is to analyse the proposed norms for placebo controls of different ethical and legal guidance documents for biomedical research and to relate them to the relevant arguments in the bioethical debate. We do not distinguish such guidance documents according to their legally binding character for researchers, whether they mainly provide an ethical orientation or are indeed representing legal requirements.

[2] This position sometimes has been attributed to – and contested by - the FDA, e.g. by [2], 255.

[3] [4], 197.

[4] [5], 456.

[5] [6], 199.

[6] [7], 467.

[7] [6], 246.

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its variability, as new research results on the underlying neurobiological mechanisms are available. These show how the placebo effect could be successfully analysed in partial aspects (such as expectations of patients or physician, and the behavioural context of treatment[8]). This will also contribute to knowledge on the variability and the methodological necessity of placebo controls in different clinical areas (especially psychiatry). Such evidence must be further collected, analyzed, and criticized in a comprehensive overview. Researchers should provide convincing empirical evidence for their claims of a methodological necessity of placebo controls. This also applies to evidence concerning the need for an additional treatment option that is equally superior to placebo.

If there are indeed "compelling and scientifically sound methodological reasons" against an ACT, an important precondition is met, but a PCT still might not be justifiable considering the risk for the participants in the control group. This leads to the question of an acceptable risk of harm or burden.

Weighing individual risks and burden against social benefits

Supporters of placebo controls in the case where proven treatment exists are defending the acceptability of possible risks and burden to trial participants in light of the potential social benefits, and more specifically with arguments that these risks and burden are coherent with others which are generally considered to be acceptable, provided that the trial participants give their valid informed consent.[9] Minimal risks and burden in research would have to be considered in the same way as minimal risk and burden generated by patients who decide regularly to forego treatment for conditions such as common cold or headache.[10] Even higher risks and burden might be justifiable as they could be compared with risks and burden that society considers to be acceptable in high risk jobs, such as fire fighting. In other words, they would be acceptable if the social benefit is high enough.[11] Such risks and burden could often be reduced by modifications in the trial design, such as early escape options, add-on trials etc.[12]

The opponents of placebo controls in the case where proven treatment exists are referring to two general ethical principles: the priority of the individual over the interests of science and society, and the duty of care of the physician—even in the role as a researcher—to provide the best proven current intervention.[13] Both principles would exclude withholding or withdrawing proven treatment in a clinical trial in favour of a placebo if there is no doubt that the proven intervention is actually better than placebo. Further, justifying the use of placebo in such a situation by invoking the argument of informed consent would not be sufficient, as informed consent very often turns out to be flawed by poor understanding by the subject of scientific concepts (including the concept of placebo), and also by a subject's potential lack of understanding of the objectives of research (the so-called therapeutic misconception).[14] In addition, even allowing minor risks and burden would not be permissible, as this would lead to arbitrary decisions by Research Ethics Committees about which kind of risk and burden are acceptable in different cases. [15]

Clearly both lines of arguments are based on different methods of ethics. While the proponents of placebo controls mainly formulate consequentialist arguments, which allow the weighing of different total outcomes in terms of social utility, their opponents' claims rest on the absolute and inviolable value of individuals and the strict duties of physician researchers. However, it is widely accepted from both perspectives that some risks in research are ethically justifiable. A total ban of placebo controls if a proven effective intervention exists is not convincing because the underlying argument that contends that physicians are not allowed to expose research participants to avoidable risks is not, in itself, convincing. Comparable risks are widely accepted in medical practise (such as foregoing treatment as a free and informed decision of the patient) and other research contexts. In a phase I and II trial a researcher exposes a healthy volunteer or a patient unavoidably to certain risks because nothing or little is known about the new treatment. This is ethically accepted; otherwise any phase I or phase II trials (and consequently clinical research as a whole) would have to be banned. The same is true for research with a verum to test e.g. QT-prolongation. Therefore the modified central question becomes: *To what extent* are physicians allowed to expose research participants to risks by a placebo control or by a control less effective than the best proven intervention?

A well-justified, coherent position on generally accepted risks in medical practise and biomedical research is required to answer this question. A list with such risks to compare the risks in certain trials could also help Research Ethics Committees to avoid arbitrariness. Another open question, however, is whether such risks also depend on the context of a trial.

Research in resource poor settings

Particularly important examples for such contexts are found in research carried out in resource poor settings. This is a separate problem closely but not exclusively related to the problem of placebo control: Is the absence of a best proven current intervention in resource poor settings a convincing argument to allow researchers to expose research participants to higher risks than they would

[8] See e.g. [8].
[9] [5], 456.
[10] [5], 467.
[11] [9], 484.
[12] [7], 465.
[13] [2], 253.
[14] [4], 195.
[15] [1], 398.

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undergo in wealthy regions where the control group would receive the proven intervention? Does this lead to an ethical double standard in research? And if such a study would be acceptable, what other conditions do apply? Particularly, who should benefit and what should that benefit be?

Again, consequentialist and deontological positions are conflicting. The most outspoken consequentialists endorse placebo controls in the case of existing proven treatment in resource poor settings, even if the aim of the research is not the reasonable availability of an alternative treatment option adapted to the local context. They are claiming that the participants have at least a 50:50 chance to benefit from a treatment that they otherwise would not receive, and that this clearly leaves them better off than a situation in which the trial would not take place at all or where it would be conducted outside of that host country.[16]

However, this seems to be a minority position, at least considering the relevant international guidelines, which generally stipulate that such research has to meet the health priorities of the host country and it is only legitimate if the objective is to make reasonably available a treatment option adapted to that local context.[17] Paragraph 17 of the Helsinki Declaration should be noted in this context: "Medical research involving a disadvantaged or vulnerable population or community is only justified if the research is responsive to the health needs and priorities of this population or community and if there is a reasonable likelihood that this population or community stands to benefit from the results of the research."

The general problem therefore is to define the conditions for placebo use in multinational research in a systematic and comprehensive way, while preventing unethical research, in particular exploitation, and creating incentives for necessary research. Such conditions have been suggested by the CIOMS-guidelines and in a "benchmarks for research in developing countries"-approach by Emanuel et al [12]. While the dispute is still not settled, these attempts provide good examples how such an agreement could be reached, because they search for widely accepted principles and for coherence with widely shared moral intuitions, and they a consensus based on fair procedures.

Outline of a possible consensus

Clearly, the fundamentally different ethical positions and approaches described above will complicate the formulation of a consensus on the ethical acceptability of placebo controls in clinical trials. However, both positions must accept that resolution of the fundamental conflict between consequentialist and deontological philosophies is unlikely to occur; neither side can reasonably be expected to abandon its ethical theory. Thus, the solution to the question at hand must be found another way. Instead of insisting on their general approach, both sides should try to find rules on a middle level, below their mutually exclusive first principles This includes the recognition of principles provided they are widely accepted, such as the priority of the individual over the interests of science and society. Such principles must then be applied in coherence with equally widely accepted, more specific ethical convictions that are already expressed in ethical and legal regulations, such as that it is generally accepted to expose some participants of clinical research to some risks and burden for the benefit of others in some cases – provided informed consent is given. Empirical assumptions made by either position should be based on substantial evidence, and the need for future research to provide such evidence should be clearly identified. Finally, where disputes on values cannot be settled easily, particularly in international research cooperations, they should be discussed and decided in a fair process involving all parties concerned, such as foreseen in the benchmarks by Emanuel et al. [12]

In sum, a total ban on placebo controls where proven treatment exists is not a convincing option, in particular because it would be inconsistent with widely shared moral convictions about generally acceptable risks in research. Precisely what these risks are should be further elaborated and discussed in detail. Unrestricted use of placebo controls would also not be acceptable, because research participants would be exposed to risks that would be unacceptable anywhere else in clinical research. Considering the arguments both positions in the placebo debate put forward, formulating a compromise remains a difficult endeavour. Nevertheless, we believe that it is achievable if approached within the general framework described in this article.

[16] [10], 207.

[17] See e.g. [11] http://www.cioms.ch/frame_guidelines_nov_2002.htm [accessed 01.03.2010]

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The Climate Crisis, Global Health, and the Medical Response

Colin David Butler

Introduction

In her speech to the United Nations **Conference** on the Human Environment, in Stockholm in 1972, the British economist Barbara Ward mentioned "the newly recognised fact that our total natural system … could be irretrievably upset by man's activities" [1]. Ward goes on to discuss the importance of reducing global inequality, the need to rethink the meaning of economic growth, and the vulnerability of the oceans. She did not mention climate change, but I don't think she would be surprised to learn, 37 years later, that human emissions of greenhouse gases are resulting in rapid ocean acidification and are likely to soon damage the marine food web [2, 3].

This paper arises from a talk I gave about climate change, education, health, limits and ethics, to a working group of the World Medical Association in 2009, in Copenhagen, quite near Stockholm, and not far conceptually from the themes mentioned there by Ward. There is however an enormous difference between now and then. In 1972 few doctors seemed aware or concerned about the global environmental dimension to these matters[4], though the medical profession by then did have a long history of working to promote health in low income settings [5], exemplified by Albert Schweitzer, who divided his time between France and the hospital he had established in Lambarene, French Equatorial Africa, now known as Gabon[6].

Today, the issue of climate change has moved to almost head the global health agenda [7-10] . The literature on climate change and health is now enormous, and continues to grow rapidly. Health and climate change was the cover story of Nature in 2005 [11]. At least two special journal issues have recently been dedicated to this problem [12, 13], while perhaps the longest single paper ever published in the *Lancet* concerned climate change and health [9]. The World Medical Association has also recently recognised and contributed to this rapidly growing awareness, by releasing the Delhi Declaration on Health and Climate Change [14].

Health effects of climate change: primary, secondary and tertiary

The list of health conditions associated with climate change can seem bewildering; from the fairly obvious to the obscure, such as gastroenteritis caused by *Vibrio Parahaemolyticus* [15]. One way to categorise these diverse manifestations is by grouping the most obvious effects as "primary" and less obvious effects as "secondary"[16]. Primary effects include heat waves, heat stress, and the physical impacts from extreme weather effects such as storms and fires. The latter group includes ecologically mediated vector borne diseases, such as malaria, and other communicable diseases whose epidemiology will be altered by climatic and associated ecological variation, from plague [17] to hantaviruses [18]. Many more details of these effects are available elsewhere [16].

There is one more level of effect that must be considered, "tertiary" [16, 19]. Ultimately, these effects are the most threatening to health. Yet, among the vast literature concerning climate change very little discusses the likely impact upon global health from the bleak social and physical conditions to which much of the world appears to now be heading. These consequences can be conceptualized as "tertiary". It perhaps takes courage rather than imagination to contemplate a nuclear-armed world in which sea level has risen by a metre, and where the grain yield in South Asia has declined by 18 to 22% [20], even though several hundred million additional South Asians are then predicted to be alive. Yet

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such conditions, interwoven with many other difficulties, may occur within 70 years. Though the Intergovernmental Panel on Climate Change forecast a maximum of 60 cm sea level rise by 2100, this is now viewed as very optimistic. More recent estimates set the upper limit of sea level rise by 2100 at two metres [21]. At least one meter of sea level rise by 2100 seems all too plausible, not least because of the recently documented, satellite-observed loss of ice from Eastern Antarctica, which until recently had been thought to be accumulating ice [22-24].

The Future

Beyond the health literature, frank discussion of the likely conditions in which humanity will live in 2100 is also rare, and where it exists, it is generally biased towards the optimistic [25]. Official socio-economic forecasts and scenarios are excessively hopeful, perhaps because humans cannot bear too much pain, or perhaps because authorities are concerned that bleak forecasts will become self fulfilling. However, in addition, a good deal of woolly thinking, "group think" and frank denial is occurring, evidenced, for example, by the way the global financial crisis caught governments and their elite economic advisers by surprise. This disconnect between prediction and reality likely extends to the size of oil supplies [26], and to other critical limits to growth [27, 28].

Irrespective of the reasons for this optimism [25] the health consequences of future global climate change are likely to be severely underestimated, without consideration of tertiary effects. Such effects are likely to exceed the other impacts, even if combined, perhaps by one or even two orders of magnitude. Apprehension of these tertiary effects, though poorly articulated, appears to be a rational explanation not only for many concerns expressed by youth about the future [29], but also for the level of concern about climate change in both the health and wider literature [28, 30, 31].

Linking the global climate and global health inequality crises

That humanity appears to be nearing an abyss might surprise some readers. However, another immense problem has co-existed with our increasing prosperity, since at least World War II [32] .This is the problem of apparently intractable Third World poverty, and of the resultant health gap between privileged and poor populations. This gap takes many forms. Most simply, it can be measured as life expectancy [33] , or as differences in the burden of disease [34]. It is also obvious in different rates of childhood stunting, with other markers of undernutrition and consequent cognitive impairment [35, 36]. It can also be expressed less precisely, such as by contemplating the global organ trade [37], daily life at one of Uganda's teaching hospitals [38] or the medical brain drain [39].

In fact, the parallel problems of global health inequality and of our trajectory towards dangerous climate change can each be considered as manifestations of an intelligent species, a clothes-wearing primate, who is not quite as smart as s/he thinks. History is replete with civilisations that have collapsed [40, 41]. Even before humans had developed cities violent conflict among humans has been documented, from the end of the Pleistocene [42, 43].

Our species is territorial, inequitable, remarkable but (in parts) also remarkably resistant to science [44, 45]. Humans are ingenious and co-operative [46]. Although the future looks very troubling, hope is not yet lost. If humanity is to traverse this future it will do so in part because of the contribution of doctors, together with many other actors and new ways of social organisation [47].

The role of doctors in fostering a "muddle through" world

It is easy for futurists to imagine solutions to our problems. A new energy technology, already invented, might be about to revolutionise global transport. Genetic engineering might soon allow plants to thrive in droughts, or to survive weeks inundated in saline water [48]. Unfortunately, even a suite of technological breakthroughs will not be enough. Replacing and upgrading global infrastructure, such as buildings, power plants and sea walls cannot be done overnight, or even in a single decade. Many behavioural changes will also be needed, such as a lesser dependency on private cars [49], and a reduction in the 150 trillion calories of food currently wasted annually in the US [50].

It is perhaps easier for doctors to contemplate the likelihood of famines and widespread population dislocation that appear inevitable, without concerted climate mitigation. However, provided widespread war can be avoided [51], and provided civilization collectively undertakes the social and technological re-organisation which is required to slow climate change then a "muddle through" world may yet emerge.

All doctors have, at times, been involved with, or have had to personally convey bad news to their patients. Neither the most expensive medication, nor the most sophisticated diagnostic test can always defer death. However, the impermanence of life is not a reason to turn against it. Similarly, doctors can play a role in reassuring society that a good life is still possible, even if we and our fellow creatures need to live better within limits.

Conclusion

There is much to be done. There are many reasons to be anxious about the capacity of civilization to withstand the coming challenges, aggravated by climate change. Many readers will understand that the ninety years which remain in this century are not long. And, of course, selecting 2100 as a critical year is completely arbitrary. It is likely that tertiary health consequences of climate change will unfold well before 2100. Indeed, the future may show that phenomena such as Cyclone Nargis [52], the overflow of the

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Khosi River in Bihar [9], and the conflict in Darfur [53] were not isolated extreme events, but early evidence of such tertiary events.

Doctors also understand the value of prevention. Few of us have ever seen a case of smallpox. Preventive medicine, the least glamorous sphere of medicine, is the most powerful in terms of deaths averted and years of life gained. Tackling the climate crisis is preventive medicine. At the same time, doctors should also act to reduce the crisis in global health inequalities. In particular, doctors should add their moral voice to resist any strategy of triage, the abandoning of large populations to their apparent fate. While it seems inevitable that large scale humanitarian crises, dwarfing that of the 2004 tsunami, will occur because of climate change, it is not inevitable that billions must die as a result. But in order to make this task possible doctors must join with the growing coalition of youth, activists, visionaries and eco-billionaires who think similarly.

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Keeping the Lines of Communication Open – and Patient Safety First

When was the last time a patient approached you, asking what to do if they have side effects from their medicine or if they are even taking it correctly? These questions may not pop up in your practice every day when seeing your patients, but they should and we need to encourage it.

Knowing all the medications a patient takes can help prevent errors, so it's absolutely critical that patients feel empowered to talk freely with Climate change us about their medication questions. Furthermore, open communication is necessary, particularly to help the more than 89 million American adults who have limited health literacy skills.

A new online resource can help. It's a one-page tip sheet to help facilitate patients' conversations with you about the medications they are taking, including vitamins and drugs bought without a prescription, and the questions they have or should be asking. Print it off and keep it in your office or waiting room, and share it with the patients in your practice.

It's all a matter of keeping patients safe. While we're inundated with this thought every second of every day, this particular topic received plenty of clout on the national stage. The entire health care community, including the AMA and hospitals and health care systems across the country, took the time to help mark the importance of patient safety during year 2010. National Patient Safety Awareness Week and the theme "Let's talk: Healthy conversations for safer health care."

Kicked off March 7 by the National Patient Safety Foundation and being observed through March 13, the week centered around health care organizations promoting patient safety and highlighting the work they have done and are doing to improve patient safety, health care quality and patient education. The AMA established the foundation in 1996 and has since donated more than $7 million to help fulfill its mission. As part of the week, the AMA also focused on medication safety with its annual "Know what's in your medicine cabinet" reminder and the new patient tip sheet I mentioned earlier.

Remind your patients that medical safety starts at home, and that they are the ones who play a key role in keeping their families safe by making sure prescription drugs are up to date and out of children's reach. Tell them to utilize the AMA Web site for guidance on proper disposal of expired or unused prescription medications when cleaning out the medicine cabinet. And check out other patient safety resources and programs from the AMA that help strengthen the patient-physician relationship and improve care by preventing infections, as well as communication tools on medication reconciliation and the AMA Physician Consortium for Performance Improvement.

Let's make a point to emphasize patient safety and communication with our patients every day throughout the year. It's an ongoing effort together to promote excellence in patient care. That's our job as physicians, and that's what our patients deserve.

J. James Rohack, MD, President of the AMA

End Water Poverty

People are literally dying for the toilet. Join the World's Longest Toilet Queue (WLTQ) and take a stand against this shocking injustice.

22 March was World Water Day, a global observance of our planet's most precious resource. It is also a crucial moment in the fight against the global sanitation and water crisis that's killing 4000 children every single day. Just one month later, politicians from across the globe will gather in Washington DC. to discuss what they need to do to fulfil some of the most basic rights of the world's citizens – access to a safe toilet and clean water.

The World's Longest Toilet Queue (WLTQ) may sound like a joke but it is a mass mobilisation event and Guinness World Record attempt bringing together thousands of campaigners from across the world to demand real change at the meeting.

In 2009, the Standing Committee of European Doctors (CPME) accepted the British Medical Association's invitation to endorse End Water Poverty, the international campaign to end the global crisis in water and sanitation. In 2010, the BMA is asking all CPME member organisations to urge their members to join the WLTQ. Many European countries have already confirmed that they will be holding queues - among them, Belgium, France, Italy, the Netherlands, Denmark, Finland, Norway, Spain, Sweden, and Turkey.

Our task is to make sure that as many people as possible join the queues and show world leaders that action is needed now.

http://www.worldtoiletqueue.org/eng/

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Multidrug-resistant Tuberculosis: Problems and Responses

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Introduction

This year, we commemorate the 100th anniversary of Robert Koch's death. Although great diagnostic and therapeutic progress has been made since his discovery of the tubercle bacillus in 1882, tuberculosis (TB) is still one of the most widespread infectious diseases and one of the leading causes of death worldwide. The situation was declared an emergency by the WHO in 1993 [1], but has become even worse since in several parts of the world.

The aim of this article is to give an overview of the present epidemiological situation, of the main causes of this threatening development – in particular of drug resistance – and of strategies urgently needed to solve the problems.

Present epidemiological situation

According to the updated 2009 report of the World Health Organisation (WHO) on 'Global Tuberculosis Control', there were in 2008 an estimated 9.4 (8.9 - 9.9) million new cases of TB worldwide [2]. This figure represents an increase from the 9.27 million in 2007. However, since the world population has also grown, the number of cases per capita shows that there is a small decrease in incidence of TB from 142/100,000 in 2004 to 139/100,000 in 2008. Figure 1 shows the regional incidence of TB, while Table 1 contains statistics on the 22 'high-burden' countries which comprise 85 % of all new TB cases. In absolute numbers, China and India are the leading countries due to their large populations. South Africa and other sub-Saharan African countries are foremost in incidences.

In almost all industrialized countries the incidences are constantly declining, but still far from elimination of TB, defined as fewer than one case per 1 million population per year [2].

An estimated 1.3 (1.1 - 1.7) million HIV-negative people died of TB in 2008, an additional 0.52 (0.45 - 0.62) million died of

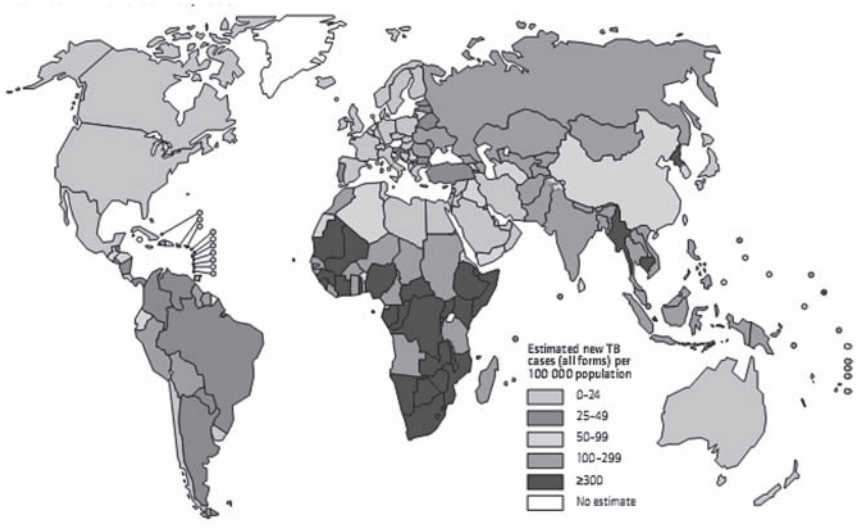

Figure 1. *Estimated new TB cases (all forms) per 100000 population 2008 [2]*

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TB among HIV-positive people (classified as HIV death in the International Statistical Classification of Diseases) [2].

Mortality rates are highest in countries with a high prevalence of TB/HIV co-infections, up to 265/100,000. However, they reach almost 20/100,000 in some countries without or with few cases with TB/HIV co-infection, e.g. 18/100,000 in the Russian Federation (Table 1).

Causes for the worldwide increase in TB

In the 1970s, TB was thought to have been nearly conquered. The two main reasons why the opposite has occurred are the appearance of HIV in the middle of the 1980s and the large increase of drug-resistant TB cases which became apparent in the 1990s. Both together were responsible for the dramatic situation in New York and other US cities in the 1990s [3].

Additional factors are the demographic development with population growth and older age structures, migration, civil conflicts, increasing poverty in some parts of the world and the lack or decreasing quality of medical facilities [4]. TB is mainly a social disease!

Increasing drug resistance

In early 2008, the WHO reported an unexpectedly large increase in drug-resistant tuberculosis [5]. An estimated half a million (~ 5 %) of all new TB cases were infected with multidrug-resistant strains (multidrug-resistant tuberculosis, MDR-TB), i.e., a strain resistant to (at least) isoniazid (H) and rifampicin (R), the two most powerful anti-tuberculosis drugs currently available.

Figure 2 shows the estimated percentage of MDR among new and re-treatment TB cases in 2007 with rates of more than 20 % in the countries of the former Soviet Union, more than 8 % in China, and 3 - 5 % in India [5].

Table 1. *27 MDR high-burden countries 2008 [2, 6 and http://www.who.int/tb/country/data/download/en/index.html (25.03.2010)]*

Country	Incidence of TB (all types) per 100 000 population	Mortality per 100 000 population (excluding HIV)	HIV positive TB patients with known HIV status in %	MDR among new TB cases in %
South Africa	960	39	60	1.8
Myanmar	400	57	100	4.2
Democratic Republic of the Congo	380	77	18	1.8
Ethiopia	370	64	24	1.6
Nigeria	300	63	27	1.8
Phillippines	280	52	0	4.0
Pakistan	230	39	0	2.9
Bangladesh	220	50	no data	2.2
Tajikistan	200	44	1	16.5
Viet Nam	200	34	20	2.7
Indonesia	190	27	29	2.0
Kazakhstan	180	24	1	14.2
India	170	23	14	2.3
Republic of Moldova	170	4,6	5	19.4
Kyrgyzstan	160	25	no data	12.5
Uzbekistan	130	27	1	14.2
Azerbaijan	110	21	no data	22.3
Georgia	110	13	1	6.8
Russian Federation	110	15	3	15.8
Ukraine	100	15	8	16.0
China	97	12	3	5.7
Armenia	73	12	3	9.4
Lithuania	71	9,3	no data	9.0
Latvia	50	5,5	8	12.1
Belarus	43	5,2	3	12.5
Bulgaria	43	5,8	0	12.5
Estonia	34	1,9	11	15.4

For 2008, WHO estimated similar numbers with almost 50 % of MDR-TB cases worldwide occuring in China and India, and causing about 150,000 deaths. The highest proportions

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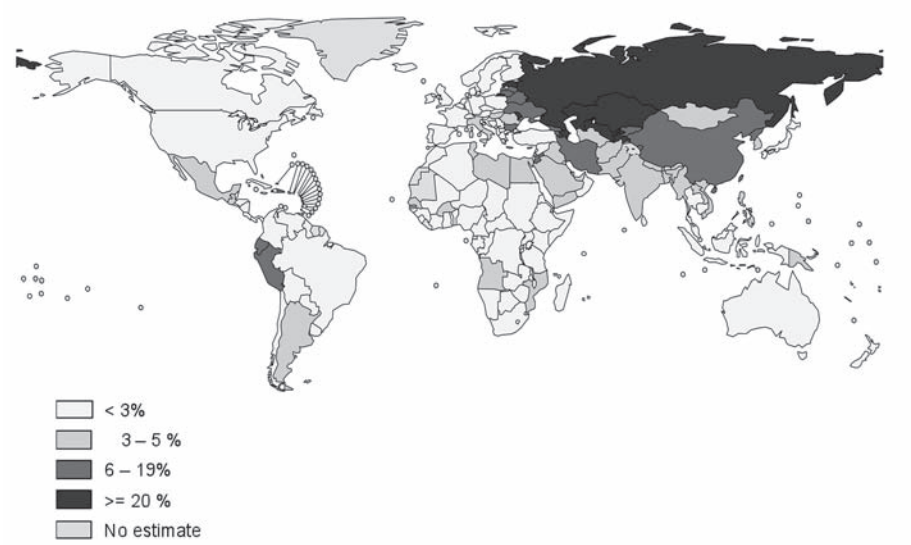

Figure 2. *Proportion of MDR among new and re-treated TB cases 2007 [WHO 2009 modified from Paul Nunn, Dubrovnik]*

Figure 3. *Distribution of countries and territories reporting at least one case of XDR-TB as of January 2010 [6]*

of MDR-TB ever documented in new cases were reported for some regions in the Russian Federation (22.8 - 28.3 %).

The WHO report also contains data on extensively drug-resistant tuberculosis (XDR-TB), which was first described in 2006 [7]. By definition, XDR-TB is MDR-TB that is additionally resistant to at least one of the fluorochinolones and to one of the three injectable second-line anti-tuberculosis drugs, amikacin, kanamycin, and capreomycin. Precise data on XDR-TB are not available, because findings regarding resistance to second-line drugs are not routinely reported. XDR is thought to account for about 5 % of MDR cases, but up to 20 % have been observed in some regions [8], more than 58 countries up to now have found XDR-TB cases in their population (Figure 3). However, it can be assumed that XDR-TB is already present in many other poor countries where the capacities for testing the sensitivity/resistance to anti-tuberculosis drugs are not available [9]. A few cases of extreme drug resistance (XXDR), defined as resistance to almost all drugs [10], and even total drug resistance (TDR), defined as resistance to all currently available drugs, have been reported, too [11].

Reasons for the development of resistance

When streptomycin was introduced in 1944 as the first antibiotic for the treatment of TB, the majority of those treated improved dramatically. There were, however, many recurrences of tuberculosis thereafter, because of the selection of streptomycin-resistant bacterial strains by monotherapy [12]. The more widespread tuberculosis is in the patient's body and the greater the number of bacteria present, the more likely it is that some of the pathogenic organisms will contain spontaneous mutations inducing drug resistance [13].

The need for combination therapy against tuberculosis was recognised after the introduction of para-aminosalicylic acid in 1944, and of isoniazid, as the rate of mutations inducing resistance to multiple drugs is very low [14]. Furthermore, combination therapy can better reach bacteria with different levels of metabolic activity at multiple sites in the body. The treatment must be continued long enough to kill 'dormant persisters' as well. The next drugs to be introduced were pyrazinamide and cycloserine in 1952, capreomycin in 1960, ethambutol in 1961, and rifampicin in 1966. The introduction of rifampicin and pyrazinamide enabled a marked

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shortening of the duration of therapy, from 18 – 24 to 6 months ('short-course chemotherapy'), provided that the patient's tuberculosis is fully drug-sensitive. The recurrence rate after such treatment is less than 5 % in patients who take all their medications correctly every day, as prescribed [14].

Faulty prescriptions, treatment compliance problems, inadequate intestinal resorption of drugs, and poor drug quality are factors that can promote the development of resistance [5, 15]. Multidrug resistance was first recognised as a major problem in 1992, when 12 % of the tuberculosis patients in New York City were found to have MDR tuberculosis [3]. MDR tuberculosis spread around the world because of the lack or inadequacy of tuberculosis control programmes, insufficient resources, and inadequate protective measures against infection, as well as delayed diagnosis of tuberculosis, all mostly man-made and thus to a large extent avoidable [16, 17].

Table 2. *New WHO Classification of anti-tuberculosis drugs [30]*

Group	Description	Substance/medication	International abbreviation
1	Oral first-line antituberculosis drugs	Isoniazid	H
		Rifampicin	R
		Ethambutol	E
		Pyrazinamide	Z
		Rifabutin	Rfb
2	Injectable anti-tuberculosis drugs	Kanamycin	Km
		Amikacin	Amk
		Capreomycin	Cm
		Streptomycin	S
3	Fluoroquinolones	Levofloxacin	Lfx
		Moxifloxacin	Mfx
		Ofloxacin	Ofx
4	Oral second-line anti-tuberculosis drugs	Ethionamide	Eto
		Protionamide	Pto
		Cycloserine	Cs
		Terizidone	Trd
		P-aminosalicylic acid	PAS
5	Anti-tuberculosis drugs with unclear effectiveness and/or an unclear role in the treatment of MDR-TB (not recomended by the WHO for routine use)	Clofazimine	Cfz
		Linezolid	Lzd
		Amoxicillin/clavulanic acid	Amx/Clv
		Thiocetazone	Thz
		Clarithromycin	Clr
		Imipenem	Ipm

The following are special risk factors for MDR/XDR tuberculosis [18]:

- Prior treatment with anti-tuberculosis drugs
- Immigration from an area where MDR tuberculosis is highly prevalent (or contact with MDR tuberculosis patients)
- Imprisonment [19]
- Possibly, HIV infection [20]

Prisons require special attention, particularly in the Newly Independent States of the former Soviet Union. Here, the high rates of MDR-TB – sometimes accounting for more than 30 % of overall incidence – and the rising prevalence of HIV are causes for concern. Prisoners have been found to have higher rates of MDR-TB in Western, industrialised countries as well [19].

In some regions of the world, the so-called Beijing genotype of *Mycobacterium (M.) tuberculosis* is associated with a high resistance rate and, in particular, with a high MDR rate (the 'W' strain) [21]. These strains may be more virulent, and/or more likely to mutate, and/or able to spread more easily because of poorer tuberculosis control in the areas to which they are endemic.

Resistant tuberculosis and co-infection with HIV

It is estimated that, in 2008, 15 % of the 9.4 million new TB cases were co-infected with HIV, with a high mortality rate [2]. In some countries of sub-Saharan Africa, the TB/HIV co-infection rate has risen dramatically, up to 50 - 80 % [2, 22]. HIV-positive persons carrying a latent *M. tuberculosis* infection are at markedly higher risk of developing tuberculosis [22]. Tuberculosis is one of the main causes of death in HIV-infected persons [22]. It is unclear whether HIV infection is a risk for drug-resistant or multidrug-resistant tuberculosis itself [5, 20]. Higher

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resistance rates might be explicable as a result of higher susceptibility to resistant bacterial strains, which are often less virulent than non-resistant strains, as well as of the higher precentage of new infections [20]. Other factors that can promote the development of resistance in HIV/TB co-infection include malabsorption, drug intolerance, drug interactions, and non-compliance among IV drug abusers [20]. Hospitalization also increases the risk of exposure [18].

In 2006, a catastrophic development was seen in South Africa, when XDR tuberculosis was transmitted from TB/HIV patients to members of a village community with a high prevalence of HIV [23]. The affected patients were hospitalised, whereupon a large number of patient and hospital employees died within a few weeks. The main causes for the persistent transmission of XDR-TB in South Africa are, aside from the high prevalence of HIV, delays in diagnosis and treatment and the inadequate availability of modern diagnostic procedures, second-line drugs, and infection control.

Another current cause for concern is the rising rate of HIV infection in Eastern Europe, particularly in the Russian Federation and the Ukraine [24]. Prisons in these countries are high-risk areas for dual infections because of an increasing rate of IV drug abuse, combined with a high prevalence of MDR-TB [25].

The diagnosis of drug-resistant tuberculosis

Drug resistance should be suspected if one or more of the risk factors mentioned above are present. Definite confirmation is only possible with the aid of standardised, quality-controlled bacteriological sensitivity testing. Because directed therapy is possible only on the basis of drug susceptibility testing (DST), bacteriological proof of tuberculosis should always be attempted, even in types of pulmonary or extrapulmonary tuberculosis, where relatively few bacteria are present.

The gold standard for DST are culture techniques; such testing previously took eight to twelve weeks, but its duration has been shortened to two to three weeks with the aid of liquid cultures and radiometric methods [26]. More rapid molecular biological methods for the detection of genetic mutations that induce resistance to various drugs (rifampicin, isoniazid) are an outstanding recent advance [26, 27]. Microscopic observation of drug susceptibility (MODS) is one of several promising new techniques.

Resistance testing for second-line drugs is highly demanding and requires the expertise of specialised laboratories [15]. Moreover, in-vitro results often do not accurately reflect drug efficacy. A rapid test for tuberculosis that could be performed easily directly on the sputum sample, with which the pathogens could be simultaneously detected and comprehensively tested for resistance, would certainly be a milestone in the fight against tuberculosis [28, 29].

There is an urgent need for more lab facilities, which are the basis for the successful treatment of MDR- and XDR-TB. Drug susceptibility testing is performed with the purpose of providing crucial information for the treatment of the individual patient. Second-line drugs should be given only on the basis of appropriate drug susceptibility tests [16, 30].

The treatment of drug-resistant tuberculosis

Tuberculosis must be treated with a combination of antibiotics [30]. The currently recommended standard chemotherapy of non-resistant tuberculosis consists of the initial administration of four first-line drugs (isoniazid, rifampicin, pyrazinamide, and ethambutol) in combination for two months, followed by a four-month stabilisation phase with a combination of isoniazid and rifampicin [30].

Sensitivity testing should be performed as rapidly as possible, particularly when drug resistance is suspected, so that the development of further resistance will not be promoted by non-directed therapy [30, 31]. A single drug should never be added to an existing regimen, as this creates the danger of monotherapy [15, 30].

No randomised trials or evidence-based data are available on the treatment of resistant tuberculosis [28, 32]. The WHO recommends that patients who were previously treated for TB should be treated with at least three drugs that they have not received before. When MDR is suspected, at least four drugs that are still potentially effective should be given [2, 30]. As a rule, complex cases of resistant TB should be treated by physicians with special experience in this area.

The new WHO classification of first- and second-line anti-tuberculosis drugs is shown in Table 2. The fluorochinolones are among the most important types of second-line drugs [30].

The treatment takes up to two years and is often poorly tolerated. It therefore requires a high degree of patient cooperation, and the default rate is higher than in non-resistant tuberculosis (up to 30 %) [28, 32]. Thus, extensive patient education is needed and the patient should take the medications under professional supervision, if possible. The possibility of transmission necessitates adequate infection control measures. Patients who are unwilling or unable to comply with such measures may need to be involuntarily quarantined; such decisions are to be taken on a case-by-case basis, according to the legal regulations [33].

The success rate of treatment is lower for MDR-TB than for less resistant or non-

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resistant tuberculosis, and it is lower still for XDR-TB [34, 35], although, under optimal conditions, better treatment outcomes have been observed [36]. In HIV co-infected patients it is much worse, where a one-year mortality of 71 % for MDR- and 83 % for XDR-TB patients has been reported [37].

The relevant percentage of patients whose therapeutic outcome is unknown, or whose treatment has not yet been completed, can substantially diminish the success rate, depending on how this rate is defined [34, 35]. Furthermore, the therapeutic outcome may be difficult to categorise: for example, when the treatment has been changed or interrupted for a long time [38]. Nonetheless, effective surveillance of DST findings and therapeutic outcomes is very important if the quality of tuberculosis control is to be accurately judged.

Improved nutrition and improvement of the patient's social environment are among the most important interventions that can supplement drug treatment for TB [15, 32]. Surgical treatment, adjunctive to drug therapy, may be indicated in cases of MDR- or XDR-TB, especially if not enough medications are available, and also in cases of non-conversion of sputum cultures, persistent cavities, and/or mainly localised disease, as long as there are no functional contraindications to surgery [32, 39, 40, 41]. Good results have been described, but often with quite high complication rates [32, 34, 40, 42]. There have been no controlled trials on this subject; it seems likely that the operability criteria that were applied led to selection of prognostically more favourable cases.

The cost of treatment in cases with complex drug resistance is several times higher than that of drug-sensitive tuberculosis [43, 44]. Moreover, the indirect costs, including those of prolonged inability to work, are often substantial. When these costs are taken into account, the cost of some cases of MDR-TB in the USA is found to be in excess of one million dollars [45]. The cost of treating XDR-TB is even higher.

Strategies against drug resistance

In 2006, WHO announced an ambitious global plan to lower the rate of new cases of TB and the death rate from tuberculosis to half of their 1990 levels by the year 2015 [46]. A further goal is the elimination of the disease by the year 2050, i.e., lowering the incidence to less than one new case of tuberculosis per one million population per year. The overall financing plan envisions 56 billion dollars of financial support for the period 2006 – 2015 [47]. More than one billion dollars are budgeted for the successful treatment of MDR- and XDR-TB cases in the year 2006 alone, in addition to the necessary overall expenditures for global tuberculosis control, which amounts to 5.3 billion dollars. A basic prerequisite for the prevention of drug-resistant tuberculosis is adherence to the stated principles of treatment, in the setting of an effective national tuberculosis control programme, whenever possible [10, 16]. The DOTS strategy ('Directly Observed Treatment Short Course') is recommended for implementation [46]; in recognition of the problem of resistance, the DOTS strategy has been extended to the so-called 'DOTS-plus strategy', and to other action plans that build upon it [43, 48, 49]. The implementation of these plans is difficult, however, not just because of inadequate financial means, but often also because the necessary infrastructure is lacking, e.g. adequately trained personnel.

The Green Light Committee established by the WHO provides technical support to poorer countries and negotiates reduced prices for quality-controlled second-line drugs. A functioning national tuberculosis control programme is a prerequisite [50, 51].

In regions of the world where MDR tuberculosis is highly prevalent, it is recommended to replace standard treatment regimens for non-responders to therapy by individualised regimens based on (rapid) resistance testing [28, 30].

Research also needs to be substantially intensified in this area [10, 52]. Alongside better diagnostic techniques for tuberculosis, including techniques for the determination of drug resistance, there is an urgent need for the development (or further development) and testing of highly effective anti-tuberculosis drugs. Over the long term, there are high hopes that effective vaccines can be developed through the improvement, supplementation, or replacement of BCG (Bacille Calmette-Guérin), a vaccine based on an attenuated strain of *M. bovis* [53].

The 'Global Stop TB Partnership', founded in 2000 and now with more than 700 private and governmental partners, serves to merge common interests and capabilities. It receives major financial support from the Global Fund to Fight AIDS, Tuberculosis and Malaria, as well as other organisations. Together with the WHO tuberculosis section, it has recently published a revised version of the 'International Standards of Tuberculosis Care' [54].

All of these approaches need to be continuously maintained and vigorously supported. Even in low-prevalence countries, in which there are adequate high-quality laboratory services and all second-line drugs available, success rates in the treatment of MDR- and XDR-TB remain unsatisfactory. It follows that the worsening resistance situation together with the HIV epidemic all over the world can only be combated and alleviated through a common effort. The political will of the industrialised countries and their assumption of responsibility for health policy, which were expressed in the 'Berlin Declaration' by a WHO European Ministerial Forum organised by the German government and held in Berlin in 2007 [55], must now be practically implemented through support for research on the national and international levels, and through adequate financial contributions.

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Conclusions

Although the incidence of TB in industrialised countries is now declining, the world as a whole faces a threat of catastrophic dimensions that will also affect industrialised nations. The main reason, aside from TB/HIV co-infection, is the increase of resistant TB strains. The situation is already serious because of the spread of multidrug-resistant TB, i.e., TB that is resistant to the two most important anti-tuberculosis drugs, and is being further aggravated by resistance to second-line drugs as well.

At present, there are an estimated half a million cases of MDR-TB worldwide, and so-called extensively resistant TB (XDR-TB), with additional resistance to defined second-line drugs, is now prevalent in more than 58 countries.

An accurate assessment of the situation is hampered by a widespread lack of laboratory capacity and/or proper surveillance. The problem is mainly due to inappropriate treatment, which may have many causes, but is theoretically avoidable. Aside from programmatic weaknesses, a lack of diagnostic and therapeutic tools causes difficulties in many countries.

Only rapid and internationally concerted action, combined with intensified research efforts and the support of the affected nations, will be able to prevent the development of a situation that will no longer be manageable even with 21st century technology.

We thank the German Ministry of Health for support.

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Host of the 2012 WMA Congress and General Assembly

As the Medical Association of Thailand is hosting the WMA Congress and General Assembly in 2012, we would like to introduce the overview to you in brief about Thailand and some aspects of the works of the Medical Association of Thailand.

Brief Introduction of Thailand

Thailand is the world's 50th largest country in terms of total area (slightly smaller than Yemen and slightly larger than Spain), with a surface area of approximately 513,000 km^2 (198,000 sq mi), and the 21st most-populous country, with approximately 64 million people. About 75% of the population is ethnically Thai, 14% is of Chinese origin, and 3% is ethnically Malay; the rest belong to minority groups including Mons, Khmers and various hill tribes. There are approximately 2.2 million legal and illegal migrants in Thailand. Thailand has also attracted a number of expatriates from developed countries. The country's official language is Thai.

Thailand has a prevalence of Buddhism that ranks among the highest in the world. The national religion is Theravada Buddhism which is practiced by more than 94.7% of all Thais. Muslims make up 4.6% of the population and 0.7% belong to other religions. Thai culture and traditions are mainly influenced by Chinese, and to a lesser degree, by Indian culture, along with Burma, Laos and Cambodia. Thailand experienced rapid economic growth between 1985 and 1995 and is a newly industrialized country with tourism, due to well-known tourist destinations such as Pattaya, Bangkok, and Phuket, and exports contributing significantly to the economy

Following the decline and fall of the Khmer empire in the 13th–14th century, the Buddhist Tai kingdoms of Sukhothai, Lanna and Lan Chang were on the ascension. However, a century later, the power of Sukhothai was overshadowed by the new kingdom of Ayutthaya, established in the mid-14th century in the lower Chao Phraya River or Menam area.

Ayutthaya's expansion centered along the Menam while in the northern valley the Lanna Kingdom and other small Tai city-states ruled the area. Thailand retained a tradition of trade with its neighbouring states, from China to India, Persia and Arab lands. Ayutthaya became one of the most vibrant trading centres in Asia. European traders arrived in the 16th century, beginning with the Portuguese, followed by the French, Dutch and English.

After the fall of Ayutthaya in 1767 to the Burmese, King Taksin the Great moved the capital of Thailand to Thonburi for approximately 15 years. The current Rattanakosin era of Thai history began in 1782, following

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the establishment of Bangkok as capital of the Chakri dynasty under King Rama I the Great.

Despite European pressure, Thailand is the only Southeast Asian nation that has never been colonized. Two main reasons for this were that Thailand had a long succession of very able rulers in the 19th century and that it was able to exploit the rivalry and tension between French Indochina and the British Empire. As a result, the country remained a buffer state between parts of Southeast Asia that were colonized by the two powers, Great Britain and France.

Western influence nevertheless led to many reforms in the 19th century and major concessions, most notably being the loss of a large territory on the east side of the Mekong to the French and the step-by-step absorption by Britain of the Shan (Thai Yai) States (now in Burma) and the Malay Peninsula.

Geography of Thailand

Totalling 513,120 square kilometres (198,120 sq mi), Thailand is the world's 50th largest country in land mass, while it is the world's 20th largest country in terms of population. It is comparable in population to countries such as France and the United Kingdom, and is similar in land size to France and California in the United States; it is just over twice the size of the entire United Kingdom, and 1.4 times the size of Germany. The local climate is tropical and characterized by monsoons. There is a rainy, warm, and cloudy southwest monsoon from mid-May to September, as well as a dry, cool northeast monsoon from November to mid-March. The southern isthmus is always hot and humid.

Thailand is home to several distinct geographic regions, partly corresponding to the provincial groups. The north of the country is mountainous, with the highest point being Doi Inthanon at 2,565 metres above sea level (8,415 ft). The northeast, Isan, consists of the Khorat Plateau, bordered to the east by the Mekong River. The centre of the country is dominated by the predominantly flat Chao Phraya river valley, which runs into the Gulf of Thailand. The south consists of the narrow Kra Isthmus that widens into the Malay Peninsula. Politically, there are six geographical regions which differ from the others in population, basic resources, natural features, and level of social and economic development. The diversity of the regions is the most pronounced attribute of Thailand's physical setting.

The Chao Phraya and the Mekong River are the sustainable resource of rural Thailand. Industrial scale production of crops use both rivers and their tributaries. The Gulf of Thailand covers 320,000 km^2 and is fed by the Chao Phraya, Mae Klong, Bang Pakong and Tapi Rivers. It contributes to the tourism sector owing to its clear shallow waters along the coasts in the Southern Region and the Kra Isthmus. The Gulf of Thailand is also an industrial centre of Thailand with the kingdom's main port in Sattahip along with being the entry gates for Bangkok's Inland Seaport. The Andaman Sea is regarded as Thailand's most precious natural resource as it hosts the most popular and luxurious resorts in Asia. Phuket, Krabi, Ranong, Phang Nga and Trang and their lush islands all lay along the coasts of the Andaman Sea and despite the 2004 Tsunami, they continue to be and ever more so, the playground of the rich and elite of Asia and the world

Brief Introduction of the Medical Association of Thailand

The Medical Association of Thailand under his Majesty the King's patronage is a nongovernmental non-profit making organization aiming at

- 2.1. Promoting and coordinating medical professions under ethical integrity.
- 2.2. Promoting relationship amongst members.
- 2.3. Promoting education, researches and medical services
- 2.4. Promoting member's welfares.
- 2.5. Coordinating and collaborating with other medical organizations in both governmental and private sectors to improve better standard of medical provision and public health to meet the international standard.
- 2.6. Advocating health promotion, prevention and medical services to public.
- 2.7. Collaborating with international health and medical organizations to keep the global standard. The Medical Association of Thailand is an active member of the Medical Associations of South East Asian Nations (MASEAN), Confederation of the Medical Associations in Asia and Oceania (CMAAO), and the World Medical Association (WMA)

The Medical Association of Thailand is practicing a great role in bringing all health and medical providers from both governmental and private sectors to work together through the elective executive committee which is composed of representatives from various sectors. The Medical Association of Thailand is also one of the three components forming a collaborative body composed of the Ministry of Public Health, the Medical Council and the Medical Association to oversee the problems within the medical profession and allies as well as to discuss and solve the problems which may arise together.

The Medical association of Thailand is also taking roles in providing compromises in

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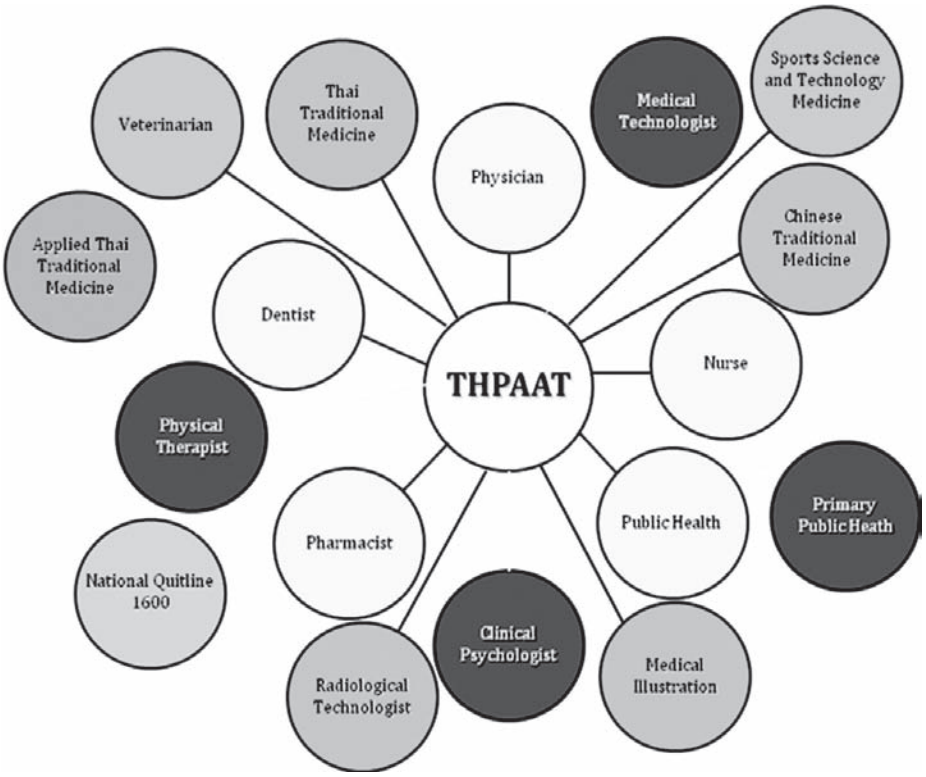
The Medical Association of Thailand has a big role in the Thai Health Professionals Alliance against Tobacco Consumption Project (THPAAT) to create the free environment, smoke-free hospitals and etc.



the conflicts between medical providers and consumers.

The Journals of the Medical Association of Thailand is a worldwide class accepted media in distributing educational and academic know-how as well as researches.

The Medical Association is not only extending its professional consultation to doctors in the remote areas but also support them with the life insurance.

CMAAO 'S Activities on Tobacco Control in the Region

On February 25th-28th.2010, the Medical Association of Thailand had hosted the " 1st. International Summit on Tobacco Control in Asia and Oceania Region" at the Rose Garden Riverside Hotel in Sampran district, Nakhonpathom Province, Thailand. The event was assigned by the CMAAO Congress and Assembly in Bali, Indonesia, November 5-7, 2009. Tobacco Control Programme was decided and approved to be a flagship programme of the Confederation of the Medical Associations in Asia and Oceania starting this year and the progress will be reported annually at the Conference and General Assembly to share experiences of success and barriers amongst member countries.

The Summit was participated by 12 countries in the region comprised of Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Myanmar, Philippines, Singapore, Taiwan, Vietnam and Thailand. The programme consisted of presentations from experts, current situation in countries with the evidence -based health hazards from tobacco smoking and it's effects on second handed smokers as a preventable epidemic, group discussion and production of Statement and declaration on Tobacco control in Asia and Oceania Region with recommendations for member countries to practice and collaborate at three levels ie. Medical Association, individual physician and National. All participating NMAs had also undersigned the Proclamation that they will unite and work together towards developing the regional network on tobacco control and contribute to make tobacco control one of the highest priorities.

The Medical Association of Thailand is in good relationship with the government as well as the private sector. The monthly executive board meeting is a platform for discussion and recommendation for stakeholders to join hands together in practices for the benefit of the consumers in general. Many practical initiatives have been created by the committee and practiced nationwide since members of the committee are elected from various fields of medical profession.

For more information please visit our website at *http:/www.mat.or.th*

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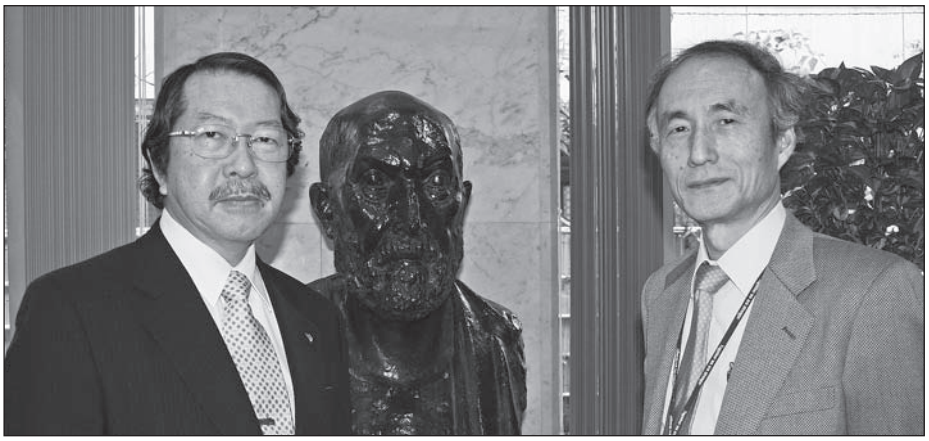
CMAAO, Over Fifty Years of History and Future Outlook



Masami Ishii, Hisashi Tsuruoka

I. Establishment of CMAAO

Currently comprised of 18 member National Medical Associations (NMAs), the Confederation of Medical Associations in Asia and Oceania (CMAAO) has now marked more than 50 years of history. CMAAO's establishment was proposed in 1956 by Dr. Rodolfo P. Gonzalez, President of the Philippine Medical Association. The Japan Medical Association (JMA) began participating in process of establishing CMAAO as one of its first international activities, after receiving recognition from the international community[1]. In 1959, CMMAO was inaugurated at the 1st Congress and Council Meeting was held at the Imperial Hotel in Tokyo [1, 2, 3]. There were 11 member NMAs at the time of inauguration, of which six were present at the first meeting (Japan, Australia, Burma (now Myanmar), Republic of China (Taiwan), Indonesia, and Philippine). The remaining five who could not be present were the Republic of Korea, Iran, Pakistan, Thailand, and India. The complete list of current membership is shown in Table 1.

The *Asian Medical Journal,* published in English by JMA since 1958, played an important role in reporting CMAAO activities and served as a forum for information exchange. The article contributed by Dr. Albert Schweitzer in 1959 [4] represented the spirit and enthusiasm of everyone involved in the journal. This *Asian Medical Journal* has since been succeeded by *Japan Medical Association Journal* (*JMAJ*), which continues to be published bi-monthly by the JMA to this day. In collaboration with *World Medical Journal* (*WMJ*), *JMAJ* continues to present CMAAO activities to the world and also introduce English translations of articles and papers from *Journal of Japan Medical Association* (the Japanese language journal of JMA) to the world. As part of the JMA's international mission, the JMA International Affairs Division cooperated with the Takemi Program in International Health at the Harvard School of Public Health in 2008, researching the theme "the potential for national medical associations to contribute to global healthcare through communication of information," by conducting surveys among World Medical Association (WMA) and CMAAO member organizations [5,6] . The role and contents of JMAJ is hoped to expand further into the future.

II. History of CMAAO Activities

Since its inauguration in 1959, CMAAO has held regular congresses and mid-term council meetings – and today, it is an organization that is recognized by the WMA a collaborating partner representing Asia and Oceania. From the very beginning, it always has been the aim of CMAAO to promote friendship and information exchange among member NMAs. The late Dr. Taro Takemi, a former JMA President and 2nd President of CMAAO, who for many years continued to strive to enhance CMAAO, also proposed strategic concepts like the "proactive concept of building a system that advantageously expands medical association activities within international treaties, considering that international controls exist … no matter how free medical association appear to be to conduct their activities." He also suggested that "when the Asian

Table 1. *CMAAO Members (18 National Medical Associations)*

Australian Medical Association, Bangladesh Medical Association, Cambodian Medical Association, Hong Kong Medical Association, Indian Medical Association, Indonesian Medical Association, Japan Medical Association,Korean Medical Association, Macau Medical Association, Malaysian Medical Association, Myanmar Medical Association, Nepal Medical Association, New Zealand Medical Association, Philippines Medical Association, Singapore Medical Association, Sri Lanka Medical Association, Taiwan Medical Association, Medical Association of Thailand

1 With Occupation Policy guidance, in 1951 the Japan Medical Association was granted approval for membership by the World Medical Association following notification of member countries worldwide and on the condition that the JMA was "an organization representing the physicians of Japan" and "operated independently of the government", receiving legitimacy as a medical organization.

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and Pacific Region come together, we can voice our opinions more strongly within the World Medical Association" [7]. Under the latter concept, the aim of CMAAO was to build cooperative relationships as an international government organization modeled after the ILO and WHO. In that sense, the establishment of CMAAO was even called the "creation of a new world"[8]. Dr. Takemi's visions to foresee the needs for socioeconomic discussion within WMA and establishment of organization like the JMA Research Institute also show timeless wisdom, even from today's perspective.

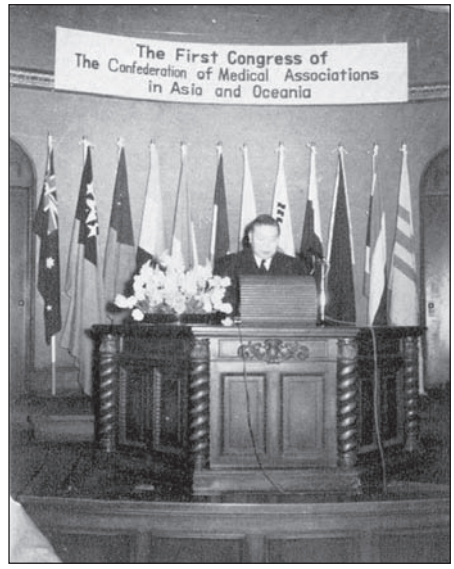
The CMAAO Secretariat, which was originally with Philippines Medical Association, has moved among Malaysia, Thailand, New Zealand. Since 2000, it has been in Japan, with the JMA International Affairs Division providing the Secretariat support. The role of CMAAO Secretary General was passed to the JMA simultaneously, of which I (Dr. Ishii) assumed the position since 2006.

III. Directionality and Roles of Recent CMAAO

In addition to the annual council meetings, CMAAO holds a congress every two years where officers are appointed and bylaws are amended in accordance with the issues discussed at council meetings. Also at a congress meeting, participating NMAs present annual country reports of the current status of their activities, as well as giving lectures at symposium on the specific theme of the year, generating lively discussions.

Table 2. *Taro Takemi Memorial Oration*

Year	Congress	Theme, Lecturer
1991	17th Hong Kong Congress	"Directions for Health care in the 1990's" Dr. Haruto Haneda, President, Japan Medical Association
1993	18th Malacca Congress	"Use of Environment Friendly Technology in the Health Industry" Dr. M.K. Ralakumar, Past President, Malaysian Medical Association
1995	19th New Delhi Congress	"Diabetes and Circulatory Diseases- Asian Drama" Prof. J.B. Bajaj, Member, Planning Commission in the rank of Minister of State, Government, India
1997	20th Bangkok Congress	"Environmental Health: UNEP's Perspective" Dr. Suvit Yodmani, Director for Asia and the Pacific United Nations Environment Programme
1999	21st Wellington Congress	"Managed Care and the Future of Health Professions" Prof. Sir. John Scott, University of Auckland and South Auckland Health, Middlemore Hospital
2001	22nd Taipei Congress	"Medical Education in 21st Century" Dr. Ming-Liang Lee, Minister, Department of Health, Taiwan, R.O.C.
2005	24th Seoul Congress	"Progress and Problems of Health Insurance Program in Korea" Dr. Tai Joon Moon, President Emeritus, Korean Medical Association
2007	25th Pattaya Congress	"60 years of Thai Healthcare under H.M. King Bhumibol" Dr. Prinya Sakiyalak, Professor Emeritus, Mahidol University
2009	26th Bali Congress	"The roles of primary physician in achieving the MDGS" Dr. Azurul Azwal, Professor, University of Indonesia



Dr. Taro Takemi

Congress activities in recent years include the presentation of the "Taro Takemi Memorial Oration" that was established by the Takemi family's fund since 1991, where a theme that reflect the time (Table 2) is discussed. At the 2008 Mid-term Council Meeting held in Manila, Philippine, Dr. Keizo Takemi was invited as a special speaker to present a memorial lecture commemorating CMAAO's 50th anniversary from the standpoint of global health. Combining both experiences in Japan and the results of research carried out at the Harvard School of Public Health, Dr. Takemi's lecture provided a visionary outlook for the next 50 years. His lecture was tremendously inspiring for the audience and lead to serious discussions to strengthen and revitalize CMAAO activities toward the year 2010.

In 2006, at the suggestion of WMA, JMA and WMA jointly hosted the 1st WMA Asian-Pacific Regional Conference in Tokyo, with CMAAO being the main organizer. The two main themes of this conference were; 1) disaster preparedness (natural disas-

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Table 3. *CMAAO Symposium – Recent themes*

Year	Congress	Title of the Symposium
1999	21st Wellington Congress	Health care system
2000	36th Tokyo Mid-term Council Meeting	Infectious Disease Control Measures in Asian and Oceania Regions
2001	22nd Taipei Congress	The Impact of Health Care Reform on the Health Care Delivery System
2002	38th Thai Mid-term Council Meeting	Roles of Traditional Medicine in Asia and Oceania Countries
2004	40th Kuala Lumpur Mid-term Council Meeting	Medical Risk Management: Improving Patient Safety & Quality of Service by Controlling Medical Error
2005	24th Seoul Congress	Present Status of National Health Insurance in Asia & Oceania Region
2006	42nd SingaporeMid-term Council Meeting	Continuing Development in Ethics and Professionalism
2007	25th Pattaya Congress	Arts and Science of Healthy Longevity
2008	44th Philippines Mid-term Council Meeting	Global Warming An Alarming Phenomenon, What Shall We Do?
2009	26th Bali Congress	Impact of the Global Financial Crisis on the Health System

Table 4. *Office Bearers of CMAAO 2009-2011*

President	Fachmi Idris	Indonesia
President-Elect	Ming-Been Lee	Taiwan
Immediate Past President	Somsri Pausawasdi	Thailand
1st Vice President	David Kwang-Leng Quek	Malaysia
2nd Vice President	Dong Chun Shin	Korea
Chair of Council	Wonchat Subhachaturas	Thailand
Vice-Chair of Council	Peter Foley	New Zealand
Treasurer	Yee Shing Chan	Hong Kong
Secretary General	Masami Ishii	Japan
Assistant Secretary General	Hisashi Tsuruoka	Japan
Adviser	Tai Joon Moon	Korea
	Yung Tung Wu	Taiwan

ters such as earthquakes and tsunamis, and infectious disease), and 2) the present state and future of the medical profession. Simultaneous interpretation services were provided for the representatives of prefectural medical associations in Japan who also attended. The special public lectures by international guest speakers were also held concurrently, and the details of the conference and special public lectures were published in the 50th anniversary issue of the JMAJ[9]. Considering the current situation of earthquakes, tsunamis caused by earthquakes, and outbreaks of infectious disease that that have been occurring repeatedly since, it was a timely academic meeting on an extremely meaningful theme.

IV. Positioning of CMAAO in the World

At the 2009 CMAAO Congress, a proposal for cross-regional anti-smoking action was adopted. The expansion of these activities is currently under consideration.

Looking at the common symposium themes in the past (Table 3), each theme chosen reflected the times. In particular, we can see that the 2009 "World Medical Association Delhi Declaration" theme represents the fruit of the past several themes, namely the 2006 Symposium "Medical Ethics," the 2008 WMA "Seoul Declaration," 2009 WMA "Madrid Declaration," and 2008 Philippines Symposium "Climate Change." Reports on the advancement of social aging and declining birthrates in many Asian countries, as if following Japan, were also presented at the Thailand/Pattaya Congress in 2007. This topic is truly a current theme and was regarded extremely useful in considering the future forms of healthcare systems and health policies. In addition, at the 2009 Indonesia/Bali Congress with the theme of "Impact of Global Financial Crisis to the Health System," it was reported that, from the standpoint of health management for the general public, the economic crisis had had very little impact in countries such as Japan, Korea, and Taiwan where a national universal healthcare system was already established. This suggests that, in an unforeseen economic crisis, a nation-wide universal healthcare system can act to minimize the damage to the general health of the public, reconfirming the necessity and significance of such universal healthcare systems.

In recent CMAAO debates, problems related to collective capacity-building appear to be clearly improving. The social structures of countries in the Asia and Oceania region

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Dr. Rodolfo P. Gonzalez

are tremendously rich and variable in terms of politics, religion, and ethnicity. However, overcoming these differences, nations have worked together to resolve problems and undertaken cooperative activities within the region in many aspects, and some results are already being achieved. Amidst this, CMAAO has promoted deeper understanding amongst the member NMAs through group presentations at annual meetings for more than 50 years, proposing meaningful themes to be discussed in global scale, which have led the way for global discussions in other forums. The Asia and Oceania region is not only important as the center of the world population – its geopolitical position has improved remarkably with the invigoration of the economy. Thus, the existence and significance of CMAAO have gained even greater weight in recent years.

In the recent WMA activities, 2008 General Assembly was held in Seoul, Korea; the 2009 General Assembly was held in New Delhi, India; and the 2012 General Assembly is to be held in Thailand. The WMA President for 2006-2007 was Dr. Arumugam of Malaysia, and the 2010-2011 term will be Dr. Desai of India. These trends illustrates that the role of the CMAAO region is becoming more important on the global stage.

Furthermore, the efforts of CMAAO are inspiring other parts of the world, too. In Africa, a movement to establish a confederation of medical associations gained momentum, which lead to the formation of the African Medical Association (AFMA) in 2006, with South Africa taking a central role in its inauguration. So far, there have been intermittent talks between CMAAO and AFMA for international exchange and cooperation – which surely will grow to more specific discussions, given the opportunity in future.

V. CMAAO's Board Structure and Future Activities

The composition of the CMAAO Board, determined at the 2009 Indonesia Congress, is shown in Table 4. In order to further strengthen information sharing that been growing consistently among member NMAs and to facilitate prompt actions when necessary, it has been agreed to undertake strategic revisions with a view to the next 50 years. The significance of the JMAJ, which uses the common language in the region, is bound to increase further. Urgent issues also include promoting better information exchange through enhancing of information platforms on the internet and preparing online networks. There is also a need to establish more effective means to disseminate information, such as declarations and other policy papers. These reforms will likely call for examinations of the style and format of congress meetings as well as the constitution itself, for which exchange of opinions online has already begun.

VI. Conclusion

With more than 50 years of history, the CMAAO's role within the WMA has recently begun expanding. The purpose of this brief history of CMAAO and summary of its recent activities is to familiarize all WMA members of the current status of CMAAO as we begin to focus on our next 50 years.

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Partnership Initiatives Herald a New Phase for the Samoa Medical Association


Judy McKimm


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Samoa is a small, peaceful nation in the South Pacific with a population of approximately 200,000. It experiences a severe shortage of doctors and faces serious obstacles in attaining sufficient numbers of doctors to meet its health needs in the decades ahead. The Samoa Medical Association (SMA) was founded in 1948 and is one of the oldest professional associations in Samoa.

Although the SMA has provided its members with continuing medical education opportunities, annual scientific conferences and weekly CME meetings since its foundation, it was felt that more could be done. For many years, the Association dreamed of having its own journal and holding international conferences, but the relatively small scale of medical and health care in Samoa and excessive workloads of doctors meant that, until recently, this dream could not be realised. In 2009, through collaboration among the Oceania University of Medicine (OUM), the SMA, and the National Health Service, the SMA achieved one of its aspirations with the launch of the Samoa Medical journal (SMJ), the online version of which can be read without subscription at *www.oceaniamed.org*. In April 2010, the same collaborative group will launch the first Medical Conference on *Heart Disease in Samoa* with speakers from Samoa and New Zealand.

Oceania University of Medicine was established in Samoa in 2002 to serve the national and regional interests in terms of medical workforce needs. In addition to offering a four-year graduate entry medical programme and a new five year MBBS programme, OUM supports, encourages and provides a range of opportunities for practising doctors and emerging researchers to carry out medical and health-related research. This includes working with the NHS, Ministry of Health and SMA to provide continuing medical education and to develop a research infrastructure and provision of postgraduate training and research pathways, such as diplomas in key clinical areas and a masters' and doctoral programme in clinical and health sciences. The university shared the same conviction as the SMA: that it was time to have a local medical journal as part of the support mechanisms and linkages for local practitioners. The University, through its faculty, has been instrumental in bringing together its partners, the SMA and NHS, through the medical doctors to work collaboratively in the planning and implementing of the new journal.

The journal is intended to support and encourage medical and healthcare research in Samoa and the Pacific, providing a source of current medical and health information to practicing physicians and other health professionals in the region. The journal has a focus on the many healthcare workers involved in delivering healthcare and not just on a tiny minority of clinical researchers. This interprofessional focus will facilitate shared learning across and between health disciplines and services. With a focus on the South Pacific and reflecting health issues common to the region (such as chronic disease and infections), the journal covers areas such as epidemiology, public health, original basic science and clinical research, interesting case reports, reviews of endemic or emerging diseases, focal and regional medical news, research methodology, policy, and innovations in medical education. Reviews of relevant articles and books published elsewhere will also be welcome. There is a wealth of local health and medical information that needs to be shared and made known that not only will contribute to knowledge sharing but also ultimately lead to providing a health service and clinical care that is informed and evidence based. As they say, if it is not published, it does not exist!

The SMJ publishes 3 issues annually including both online and printed copies. Submissions for the journal are welcome from medical health professionals and others who are interested in health issues affecting Samoa and the South Pacific. The first issue was warmly received with articles covering such diverse topics as diabetes mellitus, intestinal infections and respiratory muscle testing. Challenges remain in the Samoan medical community to engage its members

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to conduct clinical research and publish the findings, however the launch of a local journal, plus support from OUM and other educational providers will help to develop and drive local research capacity in Samoa and the region instead of relying on overseas researchers. International researchers who have an interest in tropical medicine in the South Pacific can look forward to collaboration with OUM and the energised SMA to engage the international research community by publication of the data in the Samoa Medical Journal and other international publications.

Organizing and holding medical conferences is another opportunity to further support the SMA and the university's objective of promoting and developing medical research, and updating and sharing of medical and health information. Such conferences will highlight the health challenges and priorities of Samoa and the region but also present a platform for both local presenters and invited regional and international experts to share research findings and clinical practice and become better informed on current, evidence-based medical knowledge. A medical conference with the theme *Heart Disease in Samoa* is planned for 23rd and 24th April 2010. The second issue of the Samoa Medical Journal is scheduled to be published alongside the conference.

Judy McKimm, Professor of Oceania University of Medicine
Dr. Monalisa Punivalu , Associate Professor of Oceania University of Medicine
Dr. Ben Matalavea, Editor in Chief, Samoan Medical Journal
Dr. Tia Vaai, President Samoan Medical Association
Surindar Cheema, Professor of Oceania University of Medicine

A Glance at Indonesian Health and the Indonesian Medical Association

Triana Darmayanti Akbar

Indonesia faces the same health problems as other developing countries, which are currently fighting against infection, malnutrition and perinatal problems, not to mention natural disasters such as tsunami and earthquakes. Malnutrition is still a major issue in Indonesia, even in its capital city, Jakarta. Common diseases such as dengue fever, tuberculosis, malaria, food poisoning and malnutrition still exist in varying degrees in different provinces.

At a national level, in 2007 there were 4.1 million cases related to nutrition and malnutrition issues. Alongside the high prevalence of communicable diseases such as tuberculosis, malaria, dengue hemorrhagic fever and measles, Indonesia is also facing non-communicable diseases (NCD) such as cardiovascular disease (CVD), diabetes and hypertension. In 2007 the Indonesian Institute of Health Research and Development indicated that 31.7% of Indonesians suffer hypertension (the most common NCD) and 7.2% suffer CVD.

Indonesian health levels are still below those of other Southeast Asian countries according to basic health indicators, such as Infant Mortality Rates (IMR) and Maternal Mortality Ratio (MMR). In 2007, Indonesia's IMR was 34 per 1,000 live births, and its MMR was 228 per 100,000 live births. Meanwhile, Indonesia's Human Development Index (HDI) ranking was 107—below Thailand (78), Malaysia in (63), Vietnam (105) and the Philippines (90). Even though the trends for both indicators are improving, the figures have not changed significantly. In terms of communicable diseases, Indonesia ranks third for tuberculosis after India and China. This disease should have been eradicated.

A more significant issue is Indonesia's health budget. Health expenditure in Indonesia was equivalent to 2.8% of its GDP in 2003 which was considerably less than that of Thailand (3.5%) or Malaysia (4.2%). There have been no major changes in these figures since.

The Indonesian Medical Association (IMA) plays a very important role in improving health status in Indonesia. The Indonesian Doctors bond was founded in 1911, survived the period of Japanese occupation (1943-1945), and has evolved into its current national organization. Led by Dr. Prijo Sidipratomo, the newly-elected President, the IMA organizational structure also consists of an advisory board and a number of committees and agencies through which specialists' associations in Indonesia can join.

Having a vision of making IMA a national medical professional organization which could play a very important role in the Asia Pacific region by 2020 and missions:

1) endeavouring ethical professional capabilities;

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2) developing a meaningful role in improving health status of the Indonesian people;
3) forwarding aspirations, seeking the welfare and providing protection to all members;
4) developing professional service standards, ethical standards and the fight for professional freedom which are capable of aligning the professional development of science and medical technology with the demands and needs of the community.

IMA has as its main goal integrating all the potential of Indonesian doctors, enhancing dignity and honour of themselves and the medical profession, developing science and medical technology, and improving the health of the people of Indonesia to become a healthy and prosperous society.

In order to fulfill the IMA's vision, mission and goals, there are a number of changes that must be implemented in Indonesia. First, the low levels of health spending should be increased because of rapid population growth, the need for poverty alleviation and an aging population. The 2009 Indonesian Health Ministry budget was approximately Rp 18 trillion (approximately $1.96 million). Of this total, 48.5% was allocated for curative and medicine operational costs, 15.8% for public health, and only 7.7% for communicable and non-communicable disease programs. Indonesia needs to shift the focus of the health platform from curative programs toward health promotion and prevention; therefore, the IMA has been endorsing the empowerment of general practitioners and family doctors to practice active health promotion, the management of integrated referral systems, the acceleration of National Social Security System implementation, and a range of other health and medical efforts, including much-needed improvements to disaster management.

Triana Darmayanti Akbar, MD,
Vice Secretary General II
Indonesian Medical Association

FMH – Faithful to its Motto: "No Healthcare Policy without the FMH!"

Jacques de Haller

Currently in its 110th year of existence, the *Foederatio Medicorum Helveticorum* (FMH), or Swiss Medical Association, has continued to show foresight in its advocacy on behalf of physicians practising in Switzerland. It fosters collaboration among all stakeholders in the Swiss healthcare system and has consistently, energetically, and successfully defended physicians' rights to the freedoms necessary to practice of their profession. For instance, in the summer of 2008 the FMH resolutely opposed the proposed article in the Swiss constitution "for more quality and cost-effectiveness in medicine," which threatened patients' freedom to choose their physician and would have resulted in health funds being managed exclusively by health insurance companies. With the campaign "NEIN zum Kassendiktat" ("NO to healthfund supremacy"), and thanks to the overwhelming support of its members and a broad alliance of political parties, professional medical organisations, patients, and consumers, voters soundly rejected this proposal, to the benefit of both Swiss physicians and patients.

Sound arguments – strong community of physicians

Reliable statistical data are of paramount importance, which is why physicians' demography has been a key priority of the FMH from the outset. FMH statistics on physicians provide information on more than 30,000 doctors practising in Switzerland (status: March 2010). For many years, statistics on physicians focused exclusively on social attributes and qualifications; however, the working conditions of the Swiss healthcare system have changed in recent years – for example, many physicians no longer work exclusively in a practice but also part-time in a hospital. In addition, the proportion of physicians with family commitments is growing.

Accordingly, the FMH revised its annual statistics and since 2008 has conducted different surveys among its members according to their outpatient and/or inpatient activity. As a result, the statistics now provide more details and convey important distinctions regarding place of work, full-time equivalency and the content of the activities. This enables actors in the healthcare sector to monitor developments more closely, respond in good time to shortages of supply, and offset surplus capacities.

Setting the agenda for SwissDRG and for eHealth

The FMH does more than just provide planning instruments; for example, it also supports projects such as SwissDRG and eHealth. Swiss hospitals have until the end of 2011 to convert their billing for patient hospitalisation to the SwissDRG

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diagnosis-based system. The organisation responsible for setting up and managing this system is SwissDRG AG, a non-profit company co-founded by FMH. By the end of 2009, FMH had worked with medical associations and experts to solicit suggestions for improvements to the system and develop a concept for clinical research to accompany SwissDRG's launch: early evaluation is necessary in order to identify false incentives and introduce corrective measures rapidly. In accordance with this principle, an initial concrete, practicable proposal for related research is now in place.

The Swiss Confederation's eHealth strategy articulates ambitious healthcare objectives: "By the end of 2010, secure authentication and a legally valid electronic signature will be available for all service providers […] By the end of 2012 the electronic transfer of medical data between members of the healthcare system will be structured […]." Consequently, FMH activities over the past two years have been dominated by the development of eHealth concepts. In this regard, FMH has positioned itself as an essential partner and has channelled its concerns to various actors in the healthcare sector so as to ensure that the needs of physicians are taken into consideration. Moreover, by issuing a Health Professional Card to all physicians, it made an important contribution to the national eHealth strategy and set a national standard, successfully asserting the independence of physicians within the national eHealth infrastructure. Thanks to close ties with its members and good relations with policy makers, the media, and other actors in the healthcare sector, it remains a confident advocate of its members' interests in all areas of Swiss healthcare.

Dr. Jacques de Haller,
Président of the Swiss Medical Association

Slovak Medical Chamber (Slovenská lekárska komora)

Mikuláš Buzgó

The Slovak Medical Chamber (SMC) is an independent medical professional organization whose objective is to meet the needs of its members. It also supervises professional and ethical performance of physicians in Slovakia. Seventy-five percent of all doctors in Slovakia (15,384 doctors) from all branches of medicine are members of the SMC.

The historical roots of the SMC go back to the Austro – Hungarian Monarchy where a law on the establishment of medical chambers was issued in 1891. Later on, after the establishment of the Czechoslovak Republic in 1918, activities continued until the beginning of the communist regime. However, communists in Eastern Europe did not tolerate any non-governmental self-regulation so they suspended all Chambers' activities. They were restarted after major political and social changes in Czechoslovakia in 1989. The Slovak Medical Chamber was then re-established by law in 1990.

The SMC is a corporate body that is internally subdivided into eight Regional Medical Chambers – each in one of the eight self-governing territorial units. The Central Secretariat of the SMC is located in Bratislava. It is led by Secretary General, Mrs. Daniela Resutikova. The eight Regional Secretariats are an integral part of the Central Secretariat.

The SMC is responsible for registration of all physicians who wish to practice medicine in Slovakia. At the moment there are 21,586 (12,466 female and 9,120 male) doctors registered by SMC. From this number, 2,671 are not currently practicing in Slovakia (due to retirement, maternity leave, working abroad).

The SMC acts also as a licensing body and disciplinary body. It supervises continuing medical education (CME) which is obligatory in Slovakia for all doctors, who must accrue 250 CME credits during a five-year period. One of the major recent tasks of the SMC is the E-Learning for Doctors Project supported by European Social Fund. The aim of this project is to make continuing medical education easier and more accessible for all doctors. The SMC is an advisory body for all its members in legal, economic, and professional issues. Moreover, the organization is involved in the process of economical negotiations with health insurance bodies and comments on legislative proposals. The SMC does not act as a trade union.

According to its statute, the highest body of the SMC is the General Assembly, which determines SMC policies. Other important elected structures are: the board, the council, controlling committee and disciplinary committee. The members of these organs are elected for a four- year period. The SMA also elects a president and two

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vice-presidents. In the most recent election in 2008, Prof. Milan Dragula was re-elected as the president.

International activities of the SMC include the membership in WMA, the Standing Committee of European Doctors (CPME) and the European Association of Senior Hospital Physicians (AEMH). There is intensive and fruitful communication especially with medical organizations in neighbouring countries.

Slovakia with 5.3 million inhabitants became an EU member state in 2004. Since then the Slovakian health system has been facing new tasks and challenges. Considerable migration of doctors to other EU countries has resulted in workforce shortage in some specialties. Hence the SMC has a great interest in creating a quality professional environment for doctors in order to enhance attractiveness of the medical profession in Slovakia. It is the basic condition for increasing the quality and safety of Slovak health care and thus the EU level.

Mikuláš Buzgó, Vice-president
Slovak Medical Chamber

The National Medical Association of the Republic of Kazakhstan

The National Medical Association of the Republic of Kazakhstan was established in February 1990. Entitled the Association of Physicians and Pharmacists of Kazakhstan (KzMA), it is voluntary, self-governing, professional, public nongovernmental organization, uniting physicians. It has more than 60 branches and representatives in oblast (regional) centers and many large cities of Kazakhstan.

The main purposes of the association are: to promote the recognition of the medical profession based on the highest levels of professionalism, humanism, and charity; to participate in medical science development and practice to ensure the health of the population; to support development of the nongovernmental health sector; and to organize and implement charitable programs.

Full membership is open to the physicians of Kazakhstan. Honorary members include physicians of Europe and CIS countries. Students of medical institutions of Kazakhstan are welcomed as "joining members".

During its 20-year history, the National Medical Association has implemented the following activities:

- Interacted with different ministries and governmental bodies
- Represented the interests of the members of the NMA in governmental, international and nongovernmental organizations
- Protected the rights and interests of their members experiencing conflict situations and legal proceedings
- Implemented publishing activities, including issuing the medical magazine "Ave Vitae" - a collection of conferences materials
- Prepared and executed weekly programme "Densaulyk" (Health) on TV for from 1996-2000
- Initiated establishment of the Almaty Curative Centre, institute of post-graduate education for psychologists and physicians
- Served as Chairs of "Medical psychology" and "Medical Rights and Bioethics" together with the Almaty Medical Institute of Advanced Studies
- Conducted local, national, and international conferences on health issues
- Actively introduced independent expertise in the health system
  - created Committee on Ethics and Rights in 1995
  - created database of independent experts in 2000
  - passed accreditation of the Ministry of Health (MoH) of the Republic of Kazakhstan in 2008
- Founded the avenue "Ave Vitae" in Almaty, devoted to the memory of physician-solders
- Development of Ethical Code of Physicians of the Republic of Kazakhstan, hymn and oath
- Established awards:
  - The best physician of the NMA (Altyn Deriger)
  - The best clinic of the year

NMA representatives are members of the National Coordination Council on Health Care under the government of the Republic of Kazakhstan, the MoH's Board and its Commission on Attestation, Conflict Situations, Awards and Commissions of Local Executive Bodies. They are also members of the Akimat's Commissions on Narcomania and Narcobusiness Control, Family and Women, and Support of Small Business.

International collaboration

In addition to maintaining close contact with National Medical Associations of Europe and Asia, our organization is a member of several international groups:

- Member of the European Forum of Medical Associations (since 1994)
- Member of the Eurasian Forum of Medical Associations (since 1997)
- Member of the World Medical Association (since 2003)
- Member of the **European Forum for Good Clinical Practice** (since 2003)

The 2010 General Assembly of National Medical Association of the Republic of Kazakhstan, on the theme "Right for Health," will take place in Almaty, 12-14 May, a date commemorating the 65th Anniversary of the Second World War.

Dr. Aizhan Sadykova,
President of National Medical Association of the Republic of Kazakhstan

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Challenges of the European Medical Organisations

Heikki Pälve

The European Union (EU) has 27 member states that have common legislation in many areas and cooperate closely in many others. The core principle of EU is to create a functioning internal market and enhance the free movement of persons, goods, services and capital. In the health field, the mandate of the EU has substantially increased over the last two decades. Nevertheless, the mandate is still limited, taking into account the subsidiarity principle according to which matters ought to be handled by the smallest, lowest or least centralized competent authority, i.e. by sovereign countries. All in all, many decisions on public health and health services are made at the EU level, and have effect on national health systems.

In this context, the significance of European medical organisations (EMOs) is greater than ever. There are various topics of EU cooperation that influence medical profession. Free movement of health care personnel is already regulated at the EU level. Currently there are discussions on the EU legislation on free movement of patients, safety of organ donations, and better collaboration on medicinal products, just to mention few.

Increasing EU level cooperation in the health sector emphasises the importance of a unfied voice of physicians. Common views have more power and influence on the decision making of the EU. The European Commission consults widely with different stakeholders when considering new initiatives. It is important for the Commission to know who to contact if it wants to hear the opinion of European doctors.

For many years, that contact point has been the Standing Committee of European Doctors (CPME), which is an international, not for profit association and represents the National Medical Associations (NMA) of all those EU member states who are members. The CPME aims to promote the highest standards of medical training and medical practice in order to achieve the highest quality of health care for all patients in Europe. The CPME is well recognised by the EU institutions.

In addition to the CPME, however, there are numerous specialised European medical organisations where the member states´ representation is more varied. National Medical Associations are not always represented in the specialised EMOs. In summary, NMAs are represented in the EMOs[1] in the following way:

CPME (Standing Committee on European Doctors)	27 (NMAs) /27 (countries)	100 %
PWG (Permanent working group of European Junior Doctors)	10/20	50 %
UEMO (European Union of General Practitioners)	16/21	76,2 %
UEMS (European Union of Medical Specialists)	23/29	79,3 %
CEOM (Conférence Européen des Ordres des Médecins)	Membership cannot yet be defined	
FEMS (European Federation of Salaried Doctors)	3/10	30 %
AEMH (European Association of Senior Hospital Physicians)	10/15	66,7 %
EANA (European Working Group of Practitioners and Specialists in Free Practice)	5/14	35,7 %

1 Only full membership is taken into account in this table.

Lately, the relationship among the different European medical organisations has been under intense discussion, especially in the context of how best to come together to most effectively influence EU law and policy. Like the majority of National Medical Associations in Europe, the FMA's approach to this objective on the national level is to obtain the views of different groups, such as specialists, general practitioners, young and senior doctors, etc., and then develop a consensus position to represent to the government. It will be a challenge to replicate this approach at the EU level, however it is a crucial effort we must undertake.

Currently we face the threat that EU decision-makers are able to poll the various groups individually, select the response that best suits their purpose, and then claim to have incorporated the physicians' viewpoint into their decisions–even if that viewpoint does not represent the majority perspective of the NMAs but rather a subgroup of doc-

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tors represented only by some individual countries. We must, therefore, strengthen the position of the NMAs on the European level and develop an organizational model for EMOs that has a formalized structure and the objective of creating a unified voice for physicians. It is through such a collaborative structure that we will to be able to most effectively leverage our collective influence at the EU level.

Heikki Pälve, CEO
Finnish Medical Association

Letters to the Editor

"Ethical, Moral and Legal Responsibilities of Physicians: An Islamic perspective." World Medical Journal. 2009; 55(3): 107-8.

In the October 2009 issue of World Medical Journal there was a long article by Dr. Nariman Safarli entitled "Ethical, Moral, and Legal Responsibilities of Physicians: an Islamic Perspective." I wonder if I am the only reader who was dumbfounded that the editors chose to print this article. I found it to be woefully silent on the ways in which Islamic law contradicts basic human rights, (never mind the responsibilities of physicians), inaccurate and condescending in its characterization of secularized medicine/physicians, a thinly veiled attempt at religious proselytizing, and xenophobic.

Dr. Safarli writes that "Islamic Law (Shariat) is comprehensive and encompasses moral principles directly applicable to medicine." What he doesn't mention is that Shariah law prescribes barbaric punishments like amputation of the hands, blinding, flogging and stoning to death for "crimes" as varied as homosexuality, thief drinking alcohol, and extra-marital sexual relations. Indeed, in this same issue of the World Medical Journal, under Human Rights, we are told of two physicians who were sentenced in Saudi Arabia to 1500 and 1700 lashes (and prison terms of 15 and 20 years) for allegedly facilitating the addiction of a patient who was prescribed morphine for pain after trauma. Attention is also drawn to an Iranian man who was sentenced to be blinded in both eyes with acid - "a process that would involve medical professionals." What "moral principle" could possibly justify such unspeakable cruelty, never mind the involvement of physicians?

Shariah law perpetuates the oppression of women. Under Shariah law a husband has the moral and religious right to beat his wives and children for disobedience or for perceived misconduct. A woman's testimony in court is accorded half the value of a man's.

Dr. Safarli writes: "I know that the most important thing for a Muslim doctor is to be interested in the basic values and principles of Islam..." He contrasts this with "secular ethics" which "are framed by a society which is fickle, inconsistently ruled by a majority vote and devoid of religious restrictions." He posits that "secularized medicine has no consistent set of ethics regarding malpractice, fraud, and bias in research."

He writes that a secular physician turns "a blind eye to the moral and social issue of the day". Has he never heard of Drs. Lown and Chazov, two secular physicians who accepted the Nobel Peace Prize on behalf of International Physicians for the Prevention of Nuclear War? These men, one American, one Russian, organized hundreds of thousands of physicians to oppose nuclear weapons and to educate the public about the horrors of nuclear war.

Contrast the good which these secular physicians accomplished with the deeds of the Muslim physician Ayman al-Zwarahiri who masterminded the slaughter of thousands of civilians on September 11, 2001. Contrast them with another Muslim physician, Nidal Malik Hasan, who opened fire on a group of unarmed individuals at an army base in Texas, killing 13 and wounding 28.

Dr. Safarli ends his article: "To conclude, the role of the Muslim doctor is briefly to put his or her profession in service of the pure religion Al-Islam…" (emphasis mine). Here Dr. Safarli implies that other religions are somehow not pure, or are less pure than Islam. I find this offensive in the extreme, and blatantly xenophobic. I remain puzzled as to why the editors thought this article was appropriate for the World Medical Journal which is read by people of multiple faiths and no doubt by many who have no religious faith at all. I know I am not the only reader who was offended by many of the statements in this article and I would be most interested in hearing Dr. Safarli's response.

Barbara H. Roberts, MD, FACC Director, The Women's Cardiac Center at The Miriam Hospital Contributing Editor, Women's Heart Health, ProCOR Associate Clinical Professor of Medicine Warren Alpert Medical School of Brown University

Author's response

It is was very annoying, at this time of constructive and harmonious exchange of thoughts and dialogue for human welfare, to encounter such unbalanced attacks against freedom of expression of though and culture. Dr. Roberts confused between issues in a non-scientific and non-logical manner. She has mixed ethical guidelines of genuine Islamic Law (Shari'ah),

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which she describes as barbaric, with other contemporary practices in some Muslim countries, women's issues, polygamy, September 11…. etc, issues that can be dissected and discussed separately in a clam, scientific and constructive manner.

It is amazing how an associate clinical professor in a respectable medical institution allows herself to tackle major issues of ethics and culture in this narrow mended, non-scientific approach. Not only she allowed her self to contradict freedom of expression of views and values, which may differ from her's, using a language loaded with dogma and hatred, she also harshly attacked the editorial board of the Journal twice in her Letter!.

Our published article tried to present the broad concept of Islamic bioethics, which was practiced during many centuries of Islamic medical civilization. A code of medical conduct that looked at the medical profession as the most noble of all professions, in view of its intimate relations with human health, diseases, life and death.

Physicians from other faiths could present any available systems of bioethics, in an effort to discuss, harmonize and improve on the status of bioethics which needs care and improvement. All those contributions should be looked upon with respect and should not be ridiculed or attacked.

When we study the history of bioethics in past and contemporary eras, it becomes clear that people have always cared about bioethical deviations. Ethical codes have been designed and modified in efforts to combat ethical deviations and professional misconduct. The Declaration of Helsinki, for example, was modified many times since its adoption by the World Medical Association. But with all these efforts, bioethical deviations continued, and proliferated unabated.

In front of me, there is a multitude of many, many examples of unethical deviations. One example took place for almost 40 years in the city of Tuskegee-Alabama, where black patients suffering from syphilis, were intentionally left without treatment from the early 1930s to the late 1970s, in order to study the natural course of the disease in its various stages.

The Worldwide proliferation of medical inventions and breakthroughs that took place over the past several decades, have raised wide hopes and expectations, but at the same time, they have posed major dilemmas from ethical, religious, social and legal points of view, which should receive attention and efforts to improve ethical codes.

In my article, I have tried to outline the concept of combining scientific medical education together with proper upbringing on faith and values. Past Islamic Medical Civilization was successful in doing so, with a remarkable record in combating ethical deviations.

Such medical deviations usually stem from the materialistic outlooks of physicians that marginalize spiritual and ethical aspects of medical care.

The influence of globalization and big business on the medical profession always pushes towards materialistic gains, waste and cost. Such ethical and behavioral aberrations have their roots in neglecting faith and accountability in the hearts and minds of physicians and researchers.

This is the message from the article, which was written in good faith, to improve the current status of bioethics. We stand for human values and look for harmony and collaboration between cultures and other ideas.

Sincerely yours, Dr. Nariman Safarli
President, Azerbaijan Medical Association

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The WMHG's team

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Financial Crisis – Implications for Health Care Lessons for the Future

Conference of the World Medical Association

September 10–11, 2010, Riga, Latvia

The financial crisis has affected economies on a global scale. While some countries have experienced no more than a temporary decline, other countries are still in deep recession leading to practical insolvency. Despite the crisis many national health care systems have maintained their stability and have been only moderately affected, while others have experienced direct budgetary cuts of up to 30 % which jeopardize essential health care services in some areas.

In order to discuss the implications of the financial crises on health World Medical Association in cooperation with Latvian Doctor's Association is planning to hold a two days' conference ***"The Financial Crisis – Implications for Health Care. Lessons for the future"***. The Conference will take place in Riga, Latvia on 10th and 11th, September, 2010.

Objectives

How severely are different health care systems affected by the crisis? (Regional experiences from different countries)

How do health care and economy interact during a crisis? (Are health care systems no more than an economic burden, or may they be seen as playing a stabilizing role?)

What can we learn from the crisis? What makes health care systems immune against economic crisis? (Are there best practices/ solutions to keep health care systems performing?)

What are the consequences for health care reforms? How can health care systems be structured and managed to be less sensitive to crisis and play a stabilizing role in economy?

Participants

The Conference is open to National Medical Professional organizations and. Health Care Management Staff. It is expected to convene between 300 and 400 professionals from Europe, Asia and America. The Conference representing the views of health experts and health professionals will provide an overview of the major threats and challenges for health systems caused by the economic crisis based on evidence drawn from international experience and research. Key problems and challenges faced by the health systems in Europe and globally will be identified and responses that countries so far have developed in addressing these problems and challenges will be outlined. The Conference participants will look into some priority areas to assess the impacts of economic recession and to explore effective policies in resolving the major problems created. The aim of the conference is to serve as a learning tool for finding the best possible solutions in order to lead health care systems out of the crisis and achieve better progress in improving public health and faster recovery of economies.

More information about the conference will be available at www.riga-wma.lv .

We are looking forward to meeting you in Riga and we promise you a great seasonal experience in Latvia.

Welcome to Riga!

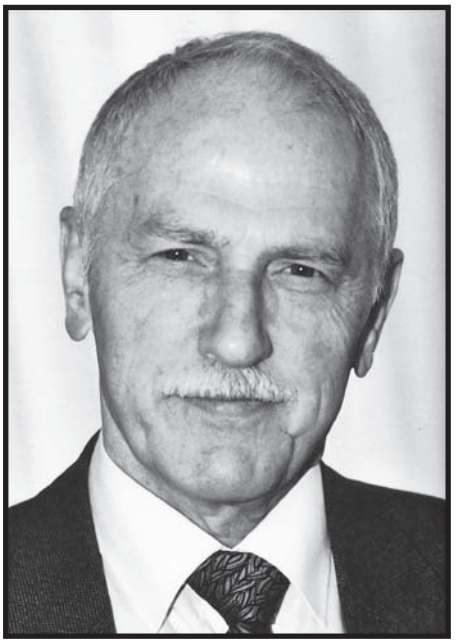
World Medical Journal

In memoriam

Jo E. Asvall (1931-2010)

Dr. Jo Asvall, former WHO Regional Director for Europe, died on 10th February 2010.

Dr. Asvall had a long and distinguished career qualifying in medicine in 1956, and very early in his career, headed up WHO's malaria team in Benin, Cameroon and Togo. Returning to Norway in 1963, he took up a hospital post, becoming increasingly engaged in clinical management and hospital administration, in 1973 becaming director of the Hospital department in the Norwegian Ministry of Social Affairs He joined the WHO European Regional Office in 1976 as Officer for Country Health Planning, becoming Director Programme Management in 1979 he was appointed Regional Director in 1985,serving in this post for the next 15 years.



Dr. Asvall particularly recognised the importance of engaging the medical profession in understanding and implementing the "Health For All" initiative. The initiative to engage the profession started in 1984 with a meeting in Copenhagen under Dr. Caprio his predecessor. In the following months when he became Regional Director in 1985 Dr. Asvall pursued this initiative, although in the initial years it was greeted with some scepticism by a few western European National Medical Associations'(NMAs) leaders . This was substantially due to misunderstanding and failure to recognise the political constraints within which the RD worked at that time. However, it ultimately led to a mutual understanding, respect and to increasingly fruitful engagement between EURO and NMA's in meetings right across the region defined as the European Forum of Medical Associations and European Region office of WHO(EFMA/WHO) Subsequently similar bodies were created for Nurses and Midwives, and for Pharmacists, all of which still are active.

Through these meetings NMA's not only learnt and clarified their knowledge of WHO policies agreed at Regional Committee Meetings by regional member states governmental representatives, as well as their relevance to physicians at national level. This also led to a better understanding of various aspects of the "Health for All" aims in the Regional plan and to some successful collaborative efforts. The other great benefit derived from the EFMA/WHO meetings were that especially in the,1980's and early 1990's they provided an opportunity for physicians from both east and west of the European Region to meet and understand the strengths and weaknesses of their various health care systems and their problems, While Dr. Asvall's remarkable dynamism, genuineness and enthusiasm which were always clear in his presentations at the Forum, sometimes they led to differences of opinion, strongly expressed by both parties. However this in no way diminished the respect in which he was held by even the most critical of his opponents and often differences were resolved by positive compromise and support. His approach to engaging National Medical Associations was but one example of his foresight in pursuing the aims of WHO in the region, not only in devising and pursuit of policies by also informing, educating and engaging doctors and other health professionals., both individually and collectively in their application…

Unsurprisingly, his retirement was a notional one and he continued to be very active in many fields not only in public health and health policy, but also as Director of the Rehabilitation of Torture Victims in Copenhagen and many other areas of activity The European Region, its medical and other health professions are greatly in his debt and will miss the qualities of leadership , inspiration and the personality of this physician.

Dr. Alan J. Rowe

100th-anniversary-festivities of the Finnish Medical Association

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