

# World Medical Journal



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- Gigantic Earthquake and Tsunami in the Japan. Healthcare Support for Radiation Exposure
- Public Health in the Russian Federation
- Task Shifting in the Netherlands

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Xylography, Germany 1559.  
In Paris on July 1559 during the tournament  
was seriously injured French King Henri II.  
The greatest French surgeon of 16<sup>th</sup> century  
Ambruaz Pare (1510–1590), was invited for  
his treatment, but the Spanish King Philip  
II sent to Paris physician Andreas Vesalius  
(1514–1564).  
Xylography from the stock of The Pauls Stradins  
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## Editorial

Objective: reduction of dietary trans fatty acid consumption for all earth's inhabitants!

The World Medical Association faces a new challenge: Reduction of trans fatty acid content in the world's foods to 2% of total fat by 2017, but a complete elimination of trans fats from food processing by 2020. It's an all-embracing problem – trans fatty acids are cheaper than valuable fats, trans fatty acids are more compliant, therefore more suited for the production of different sweets, trans fatty acids are with different melting points, therefore easily used in food processing in cases when natural fats cannot be used. However, there are also evidence-based studies that clearly show: Trans fatty acids increase low-density lipoprotein (LDL) cholesterol levels, reduce high-density lipoprotein (HDL) cholesterol levels, as well as they increase TG levels in the blood. Consequently, trans fatty acids actually promote the development of atherosclerosis, increase the risk of stroke and infarction, and reduce life expectancy.

The struggle against dietary trans fatty acids in the world proceeds with changeable success and quite episodically. While trans fatty acids are banned in separate US States and are severely restricted in Denmark, Iceland, Switzerland and separate East Asian countries, no practicable restrictive regulations – except maybe for the requirement to indicate nutrition facts on the product label – exist in the rest of the world's countries. The world food industry bravely lobbies against the opposition to the use of trans fatty acids in cookery, chocolate production, and also in the production of other foods.

Traditions around the world differ; however, high-fat sweets are loved everywhere on a holiday. These sweets usually contain more or less fat, they may be served in soft creams or hard cookies, but almost everywhere the fat added with a view to economy is the worst – the artificially hydrogenated one.

The World Medical Association should draw a mantra-like conclusion that would decide what is a good fat and what is not. Good fat includes fish fat as it contains omega fatty acids, olive oil, and any unrefined vegetable oil.

Worse fat includes refined vegetable oils, milk fat, and meat fat, but even this fat cannot be completely dispensed with, the more so when the eating habits of a part of the world's population, whose basic diet includes beef and lamb, are considered. Saturated fatty acids also raise total cholesterol and LDL cholesterol levels, moreover, they are most frequently found in the products which also contain cholesterol.

Nevertheless, one should completely avoid artificially produced hydrogenated fats, namely – trans fatty acids. If any one of us – members of the World Medical Association – announces in his or her native country that processed foods should not contain trans fatty acids, he or she receives a furious repulse from both the industry and the politics. At such moments, politicians become defenders of the poor creatures and say, "If pastries, cookies, wafers, ice-cream, cream or cheese are made without trans fatty acids, the poorest people of the world will die of starvation".

This is not true. The increase in the price of foods, caused by lowering dietary trans fatty acids and complete elimination of them from the diet, will be minimal. The science of the world will quickly solve the problem – how to process foods from natural fat – in fact, a return to long-forgotten recipes will ensue. But the struggle against trans fatty acids should be simply started in the name of the health of the world's population. As we fail to do it separately, it will be necessary to decide on a joint WMA Statement in 2012, which should include as an objective reduction of trans fatty acid content in the world's foods to 2% of total fat by 2017, but a complete elimination of trans fats from food processing by 2020. Hand in hand with the World Health Organization (WHO), we will have to address the governments of all states.

A simple algorithm should be devised, which should be repeated like a mantra: Fat should account for 25% of the calories consumed, with one half of this fat intake consisting of monounsaturated fatty acids and saturated fatty acids not exceeding one quarter of this fat intake. Trans fatty acids have no place in this proportion.

*Dr. Pēteris Apinis,  
President of Latvian Medical Association*



## World Health Organization Urged to Act over Assaults on Health Personnel and Facilities

The growing threats to health personnel during or following uprisings and mass protests throughout the world were subject to discussions during this year's World Health Assembly. The World Medical Association took part in the debate, reiterating its firm commitment to the international Code of Medical Ethics as well as the Geneva Conventions ensuring that physicians and other health personnel can provide care to everyone in need in situations of armed conflict.

### *Civil society calls for WHO to take a lead in developing methodologies and plans for data collection and systematic reporting of assaults on medical functions, personnel and patients*

On 12 May, in a joint letter<sup>1</sup> to Dr. Margaret Chan, Director General of the WHO, the WMA together with other health and human rights non-governmental organizations<sup>2</sup> (NGOs) urged WHO to take action on the growing number of assaults on health personnel and facilities in areas of conflict and civil unrest. The organiza-

tions explained that these assaults pose a threat to health, health systems and health worker retention. Furthermore they urged the WHO to convene a group of experts to put in place systematic data collection from around the world and to identify research needed to enhance the protection of health systems.

The letter declares: 'In recent weeks reports have emerged of doctors being arrested and assaulted for complying with their ethical duty to provide care to patients in need. They provide only a snapshot of a much wider problem of the lack of protection of health functions during crises. These assaults not only result in obstructed access to health, but pose a formidable challenge to health systems, limiting their effective operation during instability while also impeding the development of health infrastructure and meeting human resource needs once stability returns.'

It says the WHO has the authority to assist all health personnel in such hazardous situations by contributing its particular expertise to developing methods for collecting evidence on these assaults. The NGOs require a plan for the collection of data, for assuring reporting of the data collected, identifying research needs for gaining better understanding of the problem, and providing guidance on how protection can be enhanced.

This would be in line with the WHO's key functions to produce health statistics and 'to reduce the health consequences of emergencies, disasters, crises and conflicts, and minimize their social and economic impact.'

Responding to NGOs' concerns, Dr. Margaret Chan – in her opening speech to the

64<sup>th</sup> World Health Assembly on the 16<sup>th</sup> of May<sup>3</sup> – expressed her 'extreme distress' at reports of assaults on health personnel and facilities in some of conflict situations. The WHO Director-General then urged 'all parties to ensure the protection of health workers and health facilities in conflict situations, to enable them to provide care for the sick and injured'.

The next day, the WMA, Johns Hopkins Bloomberg School of Public Health and IntraHealth International echoed civil society's demands in a **briefing meeting**<sup>4</sup>, aimed at stimulating action by the international health community to protect doctors, nurses, other health workers and patients from assaults. The event, moderated by Maurice Middleberg from IntraHealth, provided a means to discuss with WHO the role it can play in providing leadership in this area.

Dr. Torunn Janbu, Chairperson of the WMA Medical Ethics Committee, recalled the ongoing commitment of WMA to protect health personnel worldwide and expressed its commitment to continue in this direction. Other speakers at the event included:

Dr. Nils Daulaire, Director of the Office of Global Health Affairs from the United States Department of Health and Human Service. Dr. Daulaire recommended further research and suggested an expert meeting on the topic.

Dr. Robin Coupland, Medical Adviser from the International Committee of the Red Cross, explained that the protection of health care in armed conflicts and other

1 The full text of the letter can be found at: [www.wma.net/en/20activities/20humanrights/20distress/index.html](http://www.wma.net/en/20activities/20humanrights/20distress/index.html)

2 The organizations that signed the letter were the World Medical Association, the International Medical Corps, Human Rights Watch, Save the Children UK, Merlin, IntraHealth International, Medact, Physicians for Human Rights, International Federation of Health and Human Rights Organizations, International Rehabilitation Council for Torture Victims, the International Rescue Committee, Health Poverty Action UK and International Health Protection Initiative, Public Health Institute, Management Sciences for Health, Family Care International and People's Health Movement.

3 Dr. Margaret Chan's address to the Sixty-fourth World Health Assembly, Geneva, 16 May 2011 : [www.who.int/dg/speeches/2011/wha\\_20110516/en/index.html](http://www.who.int/dg/speeches/2011/wha_20110516/en/index.html)

4 The event was co-sponsored by the United States Government – For further information, see : [www.wma.net/en/20activities/20humanrights/20distress/index.html](http://www.wma.net/en/20activities/20humanrights/20distress/index.html)

situations of violence has been identified as a priority theme for the ICRC for the coming years and presented briefly the related activities planned.

Ms. Miatta Gabanya, a nurse representing Merlin, talked about her personal experience as nurse in West Africa.

Finally Leonard Rubenstein, Senior Scholar at Johns Hopkins Bloomberg School of Public Health, concluded by urging WHO to take a lead in the protection of health personnel as a matter of priority.

WHO representatives participating in the event welcome the civil society initiative and committed to take action in the near future. We hope that tangible actions will follow.

## ***The US delegation suggests an expert meeting initiated by WHO***

Along the same lines, in its comments on WHO draft resolution on Health Work-

### **Recent WMA press releases related to the topic:**

World Health Organization urged to act over Assaults on Health Personnel and Facilities (May 2011):

[www.wma.net/en/40news/20archives/2011/2011\\_09/index.html](http://www.wma.net/en/40news/20archives/2011/2011_09/index.html)

Alarm Expressed Over Arrest of Nurses and Physicians (May 2011):

[www.wma.net/en/40news/20archives/2011/2011\\_08/index.html](http://www.wma.net/en/40news/20archives/2011/2011_08/index.html)

Attacks on Medical Personnel Causing Increasing Concern (March 2011):

[www.wma.net/en/40news/20archives/2011/2011\\_02/index.html](http://www.wma.net/en/40news/20archives/2011/2011_02/index.html)

### **WMA policy:**

WMA regulations in times of armed-conflicts:

[www.wma.net/en/30publications/10policies/a20/index.html](http://www.wma.net/en/30publications/10policies/a20/index.html)

WMA Council Resolution supporting the Preservation of International Standards of Medical Neutrality :

[www.wma.net/en/30publications/10policies/30council/cr\\_9/index.html](http://www.wma.net/en/30publications/10policies/30council/cr_9/index.html)

force Strengthening<sup>5</sup>, the US delegation recommended research to better understand assaults on health workers and interference with health facilities toward the goal of strengthening health systems. Such

5 WHO resolution on Health Workforce Strengthening (WHA64.6): [http://apps.who.int/gb/e/e\\_wha64.html](http://apps.who.int/gb/e/e_wha64.html)

research could reveal what protection strategies would be most successful and provide a basis for developing new ones. As recommended by Dr. Daulaire during the briefing, the delegation called for an expert meeting – including WHO staff, interested Member States, academic experts, humanitarian and development NGOs, as well as health professionals – to tackle these issues.

## **Health Professionals Unite in WHPA Taipei Call to Action, urging governments to ramp up fight against falsified and counterfeit medicines**

*Joint Initiative by the Health Professions from Asian Region and WHPA<sup>1</sup>*

In a first for the Asian region, national health professions organisations (nurses, pharmacists, physical therapists, dentists and physicians) have discussed and endorsed the **WHPA Taipei Call to Action on Counterfeit Medical Products**, to reduce the harmful impact of falsified and coun-

terfeit medical products on patients and the public. With the WHPA Taipei Call to Action health professions leaders are gearing up their response to this serious threat to patient safety and they are calling on governments in the region to do the same.

Under the banner of the “Be Aware, Take Action” campaign against counterfeit medical products, the World Health Professions Association workshop, held on 30 June in Taipei, tackled the grave problem of counterfeit medical products worldwide. Co-hosted with WHPA by the Taiwan Society of Health Systems Pharmacists (THSP), the workshop brought together more than 50 participants from Indonesia, Japan, Malaysia, the Philippines, Singapore, South Korea, Thailand and Taiwan.

Participants jointly agreed on the following four key strategies for the basis of a comprehensive regional action plan against counterfeiting of medical products – to increase capacity of healthcare professionals, to foster regional cooperation initiatives, to strengthen collaborative practice, and to

1 World Health Professions Alliance <http://www.whpa.org>



improve collaboration with health and enforcement authorities and with other key stakeholders.

Ton Hoek, speaking on behalf of the World Health Professions Alliance, stressed the importance of vigilance when it comes to falsified and counterfeit medical products. "Health professionals are deeply concerned by this serious public health threat, which demands sustained, coordinated international action to control it. Failure to act to prevent falsification of essential medicines would be a fundamental breach of the trust patients place in public health structures."

The keynote address was presented by Oliver Yoa-Pu Hu, Ph.D., FAAPS, Minister without Portfolio, Taiwan. He spoke on the collaborative combat against counterfeit medical products and summarised activities against counterfeits around the world.

Other presenters included:

- Deng Shin Tang, President of the TSHP, stated that health professionals must continue to work together and that in Asia, this workshop has given the impetus to health professionals in the region to continue this work together.
- Xuanhao Chan, of the International Pharmaceutical Federation, also representing

WHPA, showed what drives people to buy counterfeit medical products and where national multi-sectorial initiatives against counterfeiting have been implemented.

- Teresita Barcelo, of the Philippines Nurses Association, said that the WHPA Taipei Call to Action will be very useful for the health professionals from the Philippines and from throughout the region, to advocate to their governments in order to keep counterfeiting on the public health agenda.
- Wonchat Subhachaturas, WMA President, Thailand urged all the health professions to continue the combat together, with the World Health Professions Alliance, and with national alliances of health professionals.
- Deputy Minister, Department of Health, Mei-Ling Hsiao, stated that combatting counterfeiting of drugs in every country not only belongs to Ministries of Health but also includes prosecution departments, and wider interdepartmental cooperation. She also urged health professionals to show the costs of counterfeiting, and to strongly advocate to governments in economic terms and well as in terms of patient safety and public health.
- Paula de Cola and Emma Andrews of Pfizer Inc shared examples of advocacy in

action and urged healthcare professionals to find ways to continue to work collaboratively and to advance the Call to Action in their countries.

- Ivan Ho, Director of Global Security Asia Pacific, Pfizer Inc, highlighted some of Pfizer's extensive activities to combat counterfeit medicines. He noted that Pfizer has uncovered examples of counterfeit medicinal products in over one hundred countries.

These speakers provided a clear picture of the severity and complexity of the problem, as well as the efforts being made by their organisations to fight it – to define, combat and penalise the production and distribution of counterfeit medical products.

The workshop recognised that counterfeit medical products are, above all, a threat to patient safety with grave consequences in terms of increased disease burden, mortality and costs for healthcare systems.

For more information about Be Aware, Take Action, see [www.whpa.org/counterfeit\\_campaign.htm](http://www.whpa.org/counterfeit_campaign.htm) or send an email to [whpa\\_campaign@wma.net](mailto:whpa_campaign@wma.net)

See WHPA Taipei Call to Action [www.whpa.org/news/WHPA Taipei Call to Action2011.pdf](http://www.whpa.org/news/WHPA_Taipei_Call_to_Action2011.pdf)

## WHPA Taipei Call to Action

We, national member organizations<sup>1</sup> of the International Council of Nurses (ICN), the International Pharmaceutical Federation (FIP), the World Confederation for Physical Therapy (WCPT), the World Dental Federation (FDI) and the World Medical Association (WMA) are meeting in Taipei on the 30<sup>th</sup> June 2011, to address the alarming public health threat of falsified and counterfeit<sup>2</sup> medical products in our region.

We **recognize** that in some countries, the infiltration and sale of counterfeit and falsified medicines in the legitimate supply chain can cause disease, disability and death to patients and healthy individuals around the world. Failure to act to prevent this would be a fundamental breach of the trust patients place in public health structures.

We **observe** that unscrupulous vendors are deliberately preying upon vulnerable groups such as the elderly, poor and less well educated, thereafter misleading them into buying counterfeit medical products.

We **note with grave concern** that the people of our countries are at risk of dying from medicines that may have been accidentally adulterated, produced to a poor standard and/or degraded by inappropriate storage. Such problems should not be ignored. But neither should they be confused with deliberate counterfeiting.

We **fear** that in countries with a high burden of communicable diseases such as ma-

laria, tuberculosis and HIV/AIDS, counterfeit and falsified medical products have already led to drug-resistant forms of infective pathogens which are reversing gains that have been achieved in fighting these diseases.

We strongly affirm to governments and the international community that health professionals are uniquely positioned in this fight and will rise up to the challenge to increase the awareness of this problem and implement definitive strategies towards curbing it.

We also acknowledge the work done by the World Health Organization, IMPACT<sup>3</sup> and the World Health Professions Alliance in combating against counterfeit medical products.

**Therefore,** Today, as leaders representing nurses, pharmacists, physical therapists, dentists and physicians, we jointly agree on the following 4 key strategies for the basis of a comprehensive regional action plan against counterfeiting of medical products:

1. Increase capacity of healthcare professionals
2. Foster regional cooperation initiatives
3. Strengthen collaborative practice
4. Improve collaboration with health and enforcement authorities plus other key stakeholders

### Increase capacity of healthcare professionals to educate public

Many patients and healthy individuals seek advice on use of medical products from nurses, pharmacists, physical therapists, dentists or physicians. It then becomes paramount that healthcare professionals are adequately trained to be knowledgeable about risk of buying counterfeit and falsified medicines from unknown sources and

how to better communicate those risks to patients and the public.

Thus, *where appropriate*, national healthcare professional associations should collaborate with educational institutions of healthcare professionals and the pharmaceutical sector to undertake the following actions:

Raise awareness of the threat of counterfeit medical products amongst health professionals

- Include the subject of counterfeit medical products in undergraduate healthcare professional curriculum and pre-service training.
- Work with medicines manufacturers, national quality control laboratories, hospitals and universities to learn about quality products and ways of detecting counterfeits.
- Provide continuing education programmes to healthcare professionals and community-based health workers on the detection and reporting of counterfeit medical products.
- Develop and implement tools<sup>4</sup> for patient counselling and public awareness. Conduct regular public campaigns educating patients and the public about how they can protect themselves from the dangers of counterfeit and falsified medical products.

### Regional cooperation initiatives

There is a need to be cognizant of the current situation in which counterfeit and falsified medical products continue to move in international commerce including through the Internet, representing a major threat to public health, especially in the poorer areas of developing countries where regulatory and law enforcement capacities are weak. Now more so than ever, there is a need to

1 Indonesia, Japan, Malaysia, the Philippines, Singapore, South Korea, Thailand and Taiwan

2 A counterfeit medicine is one which is deliberately and fraudulently mislabeled with respect to identity and/or source. Counterfeiting can apply to both branded and generic products and counterfeit products may include products with the correct ingredients or with the wrong ingredients, without active ingredients, with insufficient active ingredients or with fake packaging.

3 International Medical Products Anti-Counterfeiting Taskforce <http://www.who.int/impact>

4 WHPA "BE AWARE, TAKE ACTION" Toolkit. Available from [http://www.whpa.org/counterfeit\\_campaign.htm](http://www.whpa.org/counterfeit_campaign.htm)



# World Medical Journal



work together with the other organizations of healthcare professionals in each country and across the region in order to optimize resources and maximize the effectiveness of our efforts.

Thus, *where appropriate*, national healthcare professional associations should collaborate with relevant regional stakeholders to undertake the following actions:

- Establish national and regional alliances of healthcare professional associations including patient/consumer groups and other relevant partners to promote intersectoral coordination for better information exchange and sharing of best practices.
- Work together with regional entities such as the WHO regional offices in Western Pacific and South-East Asia, the Association of South-East Asian Nations (ASEAN) community and Asia-Pacific Economic Cooperation (APEC).

## Collaborative practice

There is a need to understand and acknowledge the fact that escalating complexity of

care demands a multidisciplinary approach. Healthcare professionals must be vigilant and to work together when managing unusual responses to medical treatment. They need to have heightened vigilance in geographical areas where counterfeit and falsified medical products are prevalent.

Thus, *where appropriate*, national healthcare professional associations should undertake the following actions:

- Work together across various disciplines to raise awareness of and actions against falsified and counterfeit medical products amongst patients, the general public, their colleagues and government leaders including health authorities.
- Encourage their members to take an active role in identifying, reporting and eliminating counterfeit and falsified medical products from the legitimate supply/distribution chain.

## Collaboration with relevant authorities

Healthcare professionals and their associations need to support national drug regu-

latory authorities and relevant government agencies to aid pharmaceutical guideline enforcement.

Thus, *where appropriate*, national healthcare professional associations should collaborate with relevant authorities to undertake the following actions:

- Work towards implementation of harmonized guidelines on the regulatory control, export, import and transit conditions of pharmaceutical products.
- Develop standards of practice for entities involved in international, regional and national trade in biopharmaceuticals and pharmaceutical starting materials.
- Establish national reporting systems that enable health professionals to report and to get feedback about adverse events, drug-related problems, medication errors, misuse or drug abuse, defects in product quality or detection of counterfeit and falsified medical products.

**The Participants of this WHPA regional workshop agree unanimously on the WHPA TAIPEI "CALL TO ACTION" and plan in cooperation to support it.**

## Task Shifting in the Netherlands

### Summary

Over the past few years there has been an ongoing discussion in the Netherlands about shifting tasks from physicians to nurses (preferably specialized nurses). According to the Dutch government, such task shifting could be a way of solving the capacity problem in healthcare. Now, new legislation is on its way to making this possible. The legislation will enable physician assistants and nurse practitioners to perform certain medical health checks and procedures independently. The RDMA has been positive about the proposals, but also critical of their substance.

### 1. Introduction

In the coming years, finding qualified professionals for the healthcare sector is set to become a growing problem in the Netherlands. Several studies have shown that a shortage of professionals is to be expected.<sup>1</sup> There are two trends contributing to this development. The first is the overall decrease in the size of the workforce. Following de-

1 Netherlands Bureau for economic Policy Analysis (Centraal Planbureau), Derks, W., P. Hoevens, L.E.M. Klinkers: Structurele bevolkingsdaling, een urgente nieuwe invalshoek voor beleidsmakers, The Hague 2006. [www.cpb.nl](http://www.cpb.nl)



Diederik van Meersbergen





ades of growth, the Dutch population is moving towards a decline, which is likely to result in a smaller pool of professionals. The second trend is the growing demand for healthcare as a result of demographic, technological and socio-cultural developments, and not least because of the aging population and increasing number of people with chronic disorders. Faced with these developments, healthcare capacity will be unable to meet the expanding demand. If nothing changes, we will be seeing more and longer waiting lists, a risk of declining quality of care, and upward pressure on incomes.<sup>2</sup> The accessibility and affordability of healthcare will therefore come under increasing pressure.

Under the Dutch constitution, the government is required to promote public health.<sup>3</sup> This constitutional provision places an obligation on the government to ensure the accessibility, affordability and quality of healthcare.

Accordingly, the government must provide sufficient resources for care providers to deliver quality care. It also implies that the government must adequately supervise the quality of healthcare. These requirements have been elaborated in Dutch healthcare legislation, including the Quality of Health Care Institutions Act<sup>4</sup> (QHCI Act) and the Individual Healthcare Professions Act (IHCP Act)<sup>5</sup>.

Both acts provide a few general standards, with broad outlines that leave room for self-regulation, but nothing more. As such, they place great responsibility on healthcare professionals and health institutions to ensure the delivery of appropriate and high-quality care.

Aiming to ensure the future accessibility and affordability of care and thus honour its constitutional obligation, the Dutch government introduced a bill amending current Dutch legislation on healthcare professions by making task shifting possible.

According to the government, task shifting is one of the ways in which the capacity problem in Dutch healthcare could be solved. In 2009, the World Medical Association (WMA) drew up a 'Resolution on Task Shifting from the Medical Profession'.<sup>6</sup> And in 2010 the Standing Committee of European Doctors (CPME) introduced the Policy on Task Shifting.<sup>7</sup> The question now is to what extent the new Dutch legislation on task shifting may actually go beyond the WMA Resolution or the CPME Policy.

This article gives an overview of the way in which task shifting is being introduced into the Dutch legal system. To this end, I first provide a detailed definition of task shifting and describe the positions that the WMA and CPME have taken on task shifting. Next, I describe the current Dutch laws governing healthcare professions and the new legislation being introduced to facilitate task shifting. The article ends with a discussion and conclusion.

## 2. Definitions and positions on task shifting

### *Definitions*

In the WMA's 2009 'Resolution on Task Shifting from the Medical Profession' the term task shifting is used to describe a situation where a task normally performed by a physician is transferred to a health professional with a different or lower level of edu-

cation and training, or to a person specifically trained to perform a limited task only, without having a formal health education. This definition is also used by the CPME's Policy on Task Shifting. The definition often used in the Netherlands is: 'The structural redistribution of tasks between different professions to ensure effective use of skills and capacity'.<sup>8</sup>

Unlike in job differentiation, task shifting does not entail the redistribution of tasks between jobs. Rather, tasks are distributed over entire professions or occupational groups, which gain direct authorization to perform a given task. In the present context it entails assessing the need for the task, followed by its actual performance, both of which are carried out independently. A case in point is shifting tasks from a doctor to a nurse.

Another term commonly used in this context is *task delegation*. The difference between *task shifting* and *task delegation* is that the former refers to the predetermined structural allocation of tasks to a new profession. That task can subsequently be independently performed by the profession to which it has newly been assigned. In the case of task delegation, by contrast, the task is formally allocated to a professional practitioner who can decide in any given situation to delegate that task to another practitioner. Under the current Dutch system so called reserved procedures, as described in section 3, qualify for task delegation but not for task shifting.

### *WMA and CPME positions on task shifting*

In its Resolution, the WMA expresses that although task shifting may be useful in certain situations, and may sometimes improve the level of patient care, it can also be risky. First and foremost the WMA signals the risk of decreased quality of patient care,

2 Parliamentary Papers II 2009/2010, 32 261, no. 3, p. 3.

3 Section 22 of the Dutch Constitution (*Grondwet*).

4 *Kwaliteitswet zorginstellingen*.

5 *Wet op de beroepen in de individuele gezondheidszorg*.

6 WMA 'Resolution on Task Shifting from the Medical Profession', Delhi, October 2009.

7 Comité Permanent Des Médecins Européens (CPME), CPME Policy on Task Shifting, 2010/128.

8 Parliamentary Papers II 2009/2010, 32 261, no. 3, p. 2.



particularly if medical judgment and decision-making is transferred. According to the WMA, beyond the fact that the patient may be cared for by a healthcare worker with less training, there are other specific quality issues involved, including reduced patient-physician contact, fragmented and inefficient service, lack of proper follow up, incorrect diagnosis and treatment, and inability of the less-qualified practitioner to deal with complications.

In addition, the WMA signals that task shifting that deploys assistive personnel may actually increase demand on physicians. Physicians will have increased responsibility as trainers and supervisors, diverting scarce time away from their many other tasks, such as direct patient care. They may also have increased professional and/or legal responsibility for the care given by healthcare workers under their supervision. The WMA expresses particular concern about the fact that task shifting is often initiated by health authorities, without consultation with physicians and their professional representative associations.<sup>9</sup> As part of its efforts to address these issues, the WMA has drawn up fifteen recommendations on task shifting, the first of which states that the quality and continuity of care and patient safety must never be compromised and should be the basis for all reforms and legislation dealing with task shifting.

The CPME endorses the WMA resolution.<sup>10</sup> It points out that the shifting of some tasks may facilitate better use of manpower and resources, free up valuable time for physicians and therefore contribute to better care for patients, provided it is done with due care. However, it goes on to stipulate that, in the interests of patient safety, responsibility for diagnoses and therapeutic

decisions cannot be divided and always remains with the doctor.

### 3. Current Dutch legal situation

The Dutch Individual Healthcare Professions Act (IHCP Act) seeks to monitor and promote the quality of professional care by providing regulations for a number of occupations devoted to individual healthcare. Individual healthcare comprises in particular the performance of any procedure that directly affects an individual person and serves to promote or maintain that person's health. The law further seeks to protect patients from incompetent and negligent treatment care.

One of the provisions laid down to achieve this aim is the rule defining what are known as 'reserved procedures' (*voorbehouden handelingen*). Effectively, these are certain medical procedures that only legally designated professionals are allowed to perform independently. Prior to the IHCP Act, the Netherlands had a blanket prohibition on the performance of medical procedures by anyone other than a physician.

That prohibition was revoked when the IHCP Act took effect in 1997. Since then, anyone may perform medical procedures. The general consensus was that patients should be given the freedom to seek out aid and assistance for their own health situation where and as they saw fit.<sup>11</sup>

However, the prohibition was not revoked entirely, the exception being the rule in respect of reserved procedures. The Act specifies a number of procedures that may only be carried out by designated professionals. These procedures are deemed to pose a considerable risk to the health of the patient if performed by anyone who is not qualified.

The reserved procedures specified in the Act are:<sup>12</sup>

- surgical procedures;
- obstetric procedures;
- catheterizations and endoscopies;
- punctures and injections;
- general anaesthesia;
- procedures involving the use of radioactive substances and ionizing radiation;
- cardioversion;
- defibrillation;
- electroconvulsive therapy;
- lithotripsy;
- artificial insemination;
- prescribing medication.

Reserved procedures may be carried out by two groups of professionals: those with direct authorization (*zelfstandig bevoegd*) and those who perform the procedure on the order of someone else with direct authorization (task delegation). Physicians have the authority to perform all categories of reserved procedures.

Dentists and midwives do for some procedures. This authority entitles them to perform reserved procedures in their own name, implying responsibility for the diagnosis and decision to perform a specific procedure. They are only authorized to act to the extent that they deem themselves competent to perform the procedure.

Reserved procedures can also be carried out by others on the order of a professional with direct authorization. Issuing such an order is subject to certain conditions. Most important is that both the person giving the order and the person receiving it are confident that the latter is in fact competent to perform the procedure. Where necessary, the practitioner in question must give instructions, supervise the performance of the procedure and be on hand to intervene. In 2001, the Dutch Ministry of Health, Welfare and Sport issued a brochure on the IHCP Act in English. For further informa-

9 WMA 'Resolution on Task Shifting from the Medical Profession', Delhi, October 2009.

10 Comité Permanent Des Médecins Européens (CPME), CPME Policy on Task Shifting, 2010/128.

11 Parliamentary Papers II 1985/1986, 19 522, no. 3, p. 1.

12 Section 36 of the IHCP Act.



tion about the IHCP Act, please refer to this brochure.<sup>13</sup>

Under the current laws, nurses, nurse practitioners<sup>14</sup> and physician assistants are not permitted to perform reserved procedures under their own authority; they may only do so on the orders of a physician.

## 4. New legislation on task shifting

The shifting of tasks between practitioners is a dynamic and continuous process. Tasks that were once the exclusive preserve of physicians can now be carried out by other professions. Often, this redistribution of tasks is a natural and gradual process, acquiring structural permanence in due time.

Many routine medical procedures that are now performed by doctors could equally be performed by specially trained professionals such as nurse practitioners and physician assistants. This re-division of tasks would enable doctors to spend more time on more complex medical matters directly related to their specializations.

Various studies have been conducted in the Netherlands over the past few years to investigate the effects, and possible effects, of task shifting.<sup>15</sup> These studies have shown that task shifting in general can contribute to improving the quality, continuity and efficiency of care. A report published by the Dutch Council for Public Health and

Health Care<sup>16</sup> reveals that task shifting is being driven by a wide range of interests. In most cases it is a combination of factors, such as the desire to establish a rational breakdown of jobs and operational processes, knowledge-building within and the emancipation of professional fields, capacity shortages in one or more occupational groups, and technological developments.<sup>17</sup>

Seeking to ensure the accessibility and affordability of care, the Dutch government introduced a bill in December 2009 to legalize task shifting. The bill is necessary because the current statutory regulations, as described in section 3, offer no scope for task shifting.

Specifically, it provides that, by way of a trial, subordinate legislation may grant direct authority to assess and perform reserved procedures to professions that do not currently have such authority. The trial can run for a maximum of five years. If the amendment is ultimately approved and task shifting enacted, the minister will therefore have to draw up subordinate legislation specifying the professions – new or existing – in question, along with the requisite training for those professions and which reserved procedures may be performed directly.

The new provision will therefore also serve to grant authorities to the professions of physician assistant and nurse practitioner. It is in this context that two orders in council were recently (May 2011) submitted to the Upper and Lower Chambers of the Dutch parliament, granting direct authority to the aforementioned professions to perform certain reserved procedures – as specified in the decisions. The new element in these decisions is that they allocate direct author-

ity to perform *both* the medical health check and the procedure.

The direct authority granted by the bill is limited in scope, with restrictions regarding training, personal competence and the specialization in which the practitioner is permitted to work. Under the IHCP Act, each occupational group in the medical sector is linked with a distinct area of expertise, and it is only within their own general area that practitioners can operate.

In addition, the provision is restricted to include only procedures that are of limited complexity, routine in nature and subject to manageable risks, and will further be subject to national guidelines, standards and protocols derived from these. According to the explanatory notes to the decision, these protocols will be reflecting the cooperative relationships between nurse practitioners and the other disciplines with whom they work.

As is the case under the current statutory regime, a nurse practitioner or physician assistant will only be authorized to perform the designated reserved procedure within the designated parameters if he or she is, in fact, qualified to do so. Once these practitioners have direct authority to perform reserved procedures, they will also, in turn, have the inherent authority to instruct other care workers to carry out those same reserved procedures.

If the trial period shows this form of task shifting to be effective, the next step would be definitive recognition of the designated occupational groups. The proposed regulations recommend that the trial be subject to an evaluation focusing on, among other things, the consequences of task shifting on the quality of actual care.

## 5. Discussion

The bill paving the way to task shifting has met with mixed responses in the Neth-

13 Ministry of Health, Welfare and Sport, The Individual Health Care Professions Act, The international publication series on Health, Welfare and Sport, no. 10, <http://english.minvws.nl/en/>.

14 In Dutch: Verpleegkundig Specialist.

15 For instance: 'Task Shifting proven to be beneficial for quality of healthcare', Inspectorate for Health Care, *Staat van de gezondheidszorg*, 2007, december 2007, and 'Taskshifting in healthcare', Health Counsel, December 2008.

16 *Raad voor de Volksgezondheid & Zorg*. The Dutch Health Counsel and the Dutch Council for Public Health and Healthcare are (independent) advisory bodies to the Dutch Government.

17 Council for Public Health and Health Care, Task shifting in healthcare, 2002. [www.RVZ.net](http://www.RVZ.net).



erlands. The associations for nursing professions and for physician assistants have welcomed the bill, echoing the minister of Health, Welfare and Sport's position that task shifting will be the key to resolving impending healthcare capacity problems.<sup>18</sup>

The Royal Dutch Medical Association (RDMA) has been positive about the spirit of the proposals, but also critical of their substance. Recognizing that task shifting could offer advantages for the quality of care, provided certain conditions are met, the association had previously already advocated the allocation of new authorizations to practitioners by means of experimental trials.

However, like the international physicians' associations, the RDMA is concerned about the risks involved. Task shifting will lead to a rise in the number of people caring for each individual patient, for example. If it is to be effective, there need to be clear, definitive and transparent agreements between all involved care workers regarding the tasks and the associated responsibilities and authorizations. The RDMA considers it vital that the proposed statutory regulations and resulting subordinate legislation eliminate these risks as much as possible. That has yet to happen.<sup>19</sup>

In fact, it is debatable whether the new legislation would even comply with the first recommendation of the WMA Resolution, which states, as mentioned above, that 'Quality and continuity of care and patient safety must never be compromised and should be the basis for all reforms and legislation dealing with task shifting'.

18 The Verpleegkundigen & Verzorgenden Nederland (V&VN) and the Nederlandse Associatie Physician Assistant (NAPA).

19 A.C. Hendriks, D.Y.A. van Meersbergen, 'Afspraken nodig over taakherschikking', Medisch Contact, 4 March 2011, nr. 9, p. 555-557. [www.medischcontact.nl](http://www.medischcontact.nl) or [www.KNMG.nl](http://www.KNMG.nl)

In a letter addressed to the Upper and Lower Chambers of Dutch parliament, the RDMA emphasized the need for greater clarity on the scope of the authorization.

In addition, the RDMA stated that it sees the delegation of reserved procedures to new categories of practitioners as going a step too far, resulting in a confused view of who is supposed to do what and thereby putting the quality of care at an increased risk. Moreover, many of the existing medical guidelines contain no provisions that would allow for task shifting, prompting questions as to their validity in the new situation.

A coordinated effort to prepare the necessary treatment protocol—involving the new professions and guided by physicians—is therefore one of the first steps that would need to be taken.

The minister in charge has indicated that the bill should enter into effect as soon as possible after its acceptance by the Upper Chamber. It is essential that occupational groups affected by task shifting are jointly involved in the subsequent defining of the basic statutory framework in order to ensure that task shifting does, in fact, make a real contribution to the quality of care.

Equally vital, according to the RDMA, are the quality of cooperation between the occupational groups involved in the actual implementation of task shifting and their sharing of responsibility for the provision of good care.

It further recommends conducting a thorough evaluation after the first five years of the trial in order to come to a well-founded decision regarding the definitive statutory enactment of task shifting.

The RDMA notes that the new legislation does not comply with the strict CPME Policy on Task Shifting, which states that responsibility for diagnoses and therapeutic

decisions cannot be divided and always remains with the physician.

## 6. Conclusion

Over the coming years the Netherlands will be facing a growing shortage of care workers, even as demand continues to rise. If nothing changes, the resulting problems could be huge. Task shifting is being held up as a possible solution. The introduction of an amendment to the existing legislation would make it possible to grant direct authorization to certain professions to perform specific medical health checks and procedures on a limited trial basis.

The RDMA has been positive about the proposals, but has serious, enduring concerns related to their substance. It feels that the conditions under which task shifting is to be introduced fail to provide the necessary degree of clarity about its scope and limits. And without that foundation of clarity, there is no firm guarantee of the quality of care. Guaranteeing quality will require that new treatment protocols be drawn up under the supervision of physicians. Finally, all of the occupational groups involved in the implementation of task shifting must be able to work together effectively. A subsequent evaluation of that implementation within the Dutch system should demonstrate whether task shifting can in fact lead to measurable improvement. Then – and only then – can the trial make way for definitive legislation. It is debatable whether the new legislation would comply with the WMA's resolution and the CPME Policy on Task Shifting.

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## Japan Medical Association Teams' (JMATs) First Operation: Responding to the Great Eastern Japan Earthquake



Masami Ishii

### 1. Introduction

I experienced the magnitude 9.0 under-water earthquake the moment it struck at 14:46 JST on Friday, March 11, 2011, rocking an area stretching 500 km from the Tohoku region to the Kanto region of Japan. I was in my house adjoining a hospital in the city of Iwaki, Fukushima, a place with the most moderate climate in the Tohoku region and also very few natural disasters.

By right, that day I should have celebrated the 26<sup>th</sup> anniversary of my hospital's opening. Instead, a series of tremors suddenly struck as if the ground were being violently

thrust up from below. Books and dishes fell with a clatter and the pendant lighting swung wildly, damaging the ceiling. In Iwaki the shaking, which registered as a lower 6 intensity quake on the seven-point Japanese intensity scale, was said to have gone on for more than three minutes.

Nearly all my bookcases fell over, scattering almost 4,000 records and countless CDs across the floor. The SP records, which I had placed on the bottom shelves because they are the most easily damaged, were unharmed. The LPs were also in one piece, although some jackets had been torn. The biggest trouble was picking up the little pieces of broken CD cases and CDs, many of which had been smashed. It was also a shock to find that my British Garrard 301 turntable, which had been made about 60 years ago, had been damaged when it fell upside down during an aftershock.

Two days later I was supposed to leave from Narita International Airport for Peru early in the morning to attend a symposium and the 30<sup>th</sup> anniversary commemoration of the Japan-Peru Clinic. I canceled the trip, which was troublesome since even the mobile phone that I had registered for emergencies had difficulty connecting at this time.

The scale of the disaster, stretching from the Tohoku to the Kanto region, and the extent of the damage caused by the earthquake and tsunami along the Pacific coast was massive (Picture 1). Moreover, in the midst of on-going aftershocks the accidents at the Tokyo Electric Power Company's (TEPCO) Fukushima Daiichi and Fukushima Daini Nuclear Power Plants caused huge secondary damage to the area.

Medical institutions throughout Iwaki, including hospitals, nursing homes, and clinics, as well as my own corporation's facilities—some 50 km away from the Daiichi plant—were all affected tremendously by burst water and sewer lines and power outages.



**Picture 1. Tsunami damage in Toyoma, Iwaki City, Fukushima.** *This picture was taken on March 30 near the coast about a ten-minute drive from the author's house. The tsunami had knocked utility poles down and left mountains of wreckage behind*



## 2. Japan Medical Association Teams (JMATs) Activation

The situation was such that the Japan Medical Association's (JMA) Committee on Emergency and Disaster Medicine judged that the Japan Medical Association Teams (JMATs), which it had been discussing, needed to be activated. The JMA Disaster Headquarters immediately held an emergency meeting and sent a request out to prefectural medical associations nationwide to dispatch JMATs to the four prefectures of Iwate, Miyagi, Fukushima, and Ibaraki. An emergency press conference was then held on March 15<sup>th</sup>.

## 3. Process leading to the JMAT concept

The Civic Protection Act and the Basic Act on Disaster Control Measures, which were enacted in 2004, designated prefectural medical associations as specified local public entities. This means that they are incorporated into the disaster countermeasures headquarters set up by prefectural governments when a disaster occurs and, as a general rule, the president of the prefectural medical association is positioned as a deputy head of the disaster headquarters. For this reason, disaster agreements were signed between prefectural governments and medical associations in conjunction with the provision of these laws.

The Agreement regarding Medical Assistance during a Disaster [1] was entered into between Fukushima Prefecture and Fukushima Medical Association in January 2004. In my capacity as vice-president of the Fukushima Medical Association, I made sure that the agreement included a "deemed clause" that the deployment of medical teams sent out on the judgment of the medical association immediately after the occurrence of a disaster when communication may be in disarray would be deemed

as a requested action by giving notice after the fact.

I also ensured that the agreement guarantees that team members are compensated as public servants during mobilization and that actual expenses to perform their work are reimbursed. After becoming responsible for the area of emergencies and disasters in the JMA, I encouraged prefectural medical associations nationwide to adopt these concepts in order to give the highest priority to the saving of human life based on humanism.

In 2006 I was appointed an executive board member of the JMA and that year the World Medical Association's (WMA) Asian-Pacific Regional Conference was held in Tokyo. We discussed the issue of disaster preparedness, specifically to natural disasters such as earthquakes and tsunami and to infectious disease pandemics as the main themes of the conference. The entire contents of the conference were published in a special edition of the Japan Medical Association Journal (JMAJ), the JMA's English language journal [2].

At the same time, we built up the discussion in the JMA's Committee on Emergency and Disaster Medicine, which I was presiding over. The committee membership included regional block representatives from different prefectural medical associations and Japan's leading emergency aid specialists. In addition, members of the Ministry of Health, Labour and Welfare, the Fire and Disaster Management Agency, the Japan Coast Guard, the National Institute of Radiological Sciences, and the Self-Defense Forces Central Hospital participated as observers.

After examining past major disasters, JMATs were conceived based on the concept of providing support until community health in an afflicted area could function again, starting from the time Disaster Medical Assistance Teams (DMATs), which

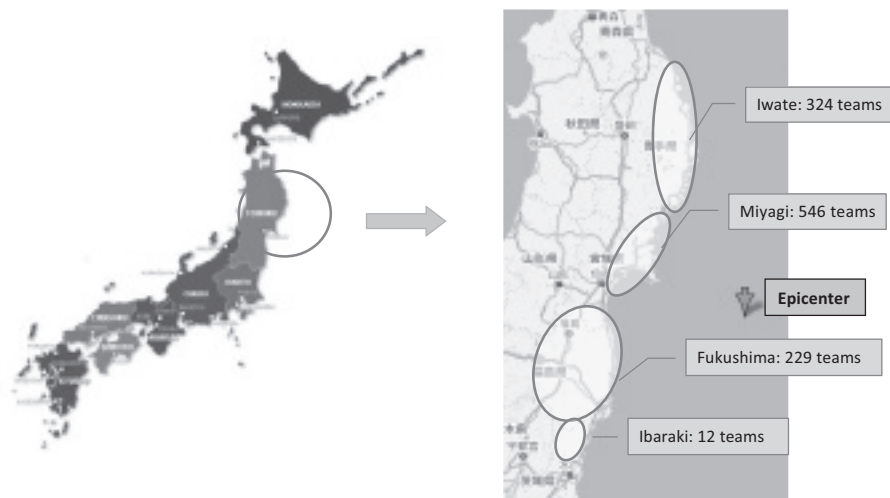
were established to be responsible for healthcare in the hyperacute phase of a disaster and have the capability to function for the initial 48 hours, begin withdrawing after finishing wide area medical transportation and their other duties. On March 11, 2010, exactly one year before the Great Eastern Japan Earthquake, the basic JMAT concept was officially proposed in the JMA's email newsletter, after giving a press conference the day before, based on a newly finished report [3].

## 4. Framework of JMAT Dispatches

When activating JMATs it was presumed that there were more than 400,000 evacuees spread over an area of 500 km long. We decided to send teams to the four afflicted prefectures of Iwate, Miyagi, Fukushima, and Ibaraki (Picture 2). Our basic image was teams consisting of one physician, two nurses, and one coordination staff that would be deployed for a period of three days to one week [4].

We divided supporting regions into prefectural blocks and made it a general principle that each block would continually support the afflicted prefecture that they had been assigned to help. We also provided teams with accident insurance under an umbrella policy taken out by the JMA for 5,000 people, regardless of whether team members were members of the JMA or not. We prepared JMAT triage cards for use in medical activities in evacuation shelters and also prepared a sample checklist for each evacuation shelter to make it easy for the presidents of municipal medical associations, who head on-the-ground joint conferences, to link information.

Specific matching between afflicted areas and support providers was left to direct contact between both sides, with the JMA providing information and acting as a coordinator.



**Picture 2. Map of JMAT dispatch locations.** *The map gives a general view of the areas to which JMATs were dispatched in the Great Eastern Japan Earthquake and the number of teams sent to each area. As of May 24, 2011, 1,114 JMATs have been dispatched including three teams that were dispatched to several prefectures (not shown in the map), and 71 JMATs are on standby*

## 5. Second Stage

A strong inland aftershock struck Miyagi on April 7 and another hit Fukushima on April 11. There is still disaster risk in the area. Nevertheless, one month after the earthquake the Ibaraki Medical Association requested the discontinuation of JMAT dispatches, indicating that it would continue operations with its own support system. Similarly, the remaining three prefectures requested the withdrawal of JMATs be limited to areas that were severely damaged and concluded for areas where the community and community health had recovered. We therefore communicated to medical associations nationwide a policy of ongoing support with necessary teams on standby. Thus JMAT support entered its second stage. Since then, the support system has been gradually reduced as community and surrounding healthcare systems recover and with the application of the universal healthcare system, which had just marked its 50<sup>th</sup> anniversary.

In response to the crisis situation of the nuclear power plant accident, the JMA un-

dertook medical support activities based on gathering and disclosing information and disseminating a better understanding of medical treatment for radiation exposure, as described in my another article to be published in the WMJ [5].

Looking back at the situation up to now and seeing that more than 1,114 JMATs have been on the ground up to May 24 and that 71 teams are on standby, the JMAT concept has demonstrated the truly immense power of Japan's medical professionals and of medical association activities in responding to this huge disaster of unprecedented scale.

## 6. Conclusion

Numerous DMATs that operate in the hyperacute phase of a disaster took part in responding to Great Eastern Japan Earthquake in addition to local medical resources in the affected areas. However, there were very few instances of lifesaving rescues in the midst of the enormous damage caused by the tsunami on top of the earthquake. More-

over, lifesaving operations were restricted by the significant damage to infrastructure, including roads through the coastal zone. In a case like this, had there been awareness of the emergency situation and had it been possible to save victims drifting on the nearly 0° C Pacific Ocean by carrying out land, air, and marine rescue operations right from the first day with support from the Japan Self-Defense Forces, Japan Coast Guard, and Japan-based US military, I think that the operations in the few hours until sunset could have produced better results. I also feel that JMAT activities that were carried out thereafter fulfilled healthcare for evacuees, which accounted for the main part of operations in each afflicted area this time.

We need to prepare for the future by taking time to do an ex-post verification of the JMAT concept in the JMA's Committee on Emergency and Disaster Medicine and by establishing a training system for Japan and holding various other discussions while collaborating with the WMA.

## Appendix<sup>1</sup>

### 1. Proposal for JMATs (Japan Medical Association Teams)

#### (1) JMATs

The Committee on Emergency and Disaster Medicine proposes JMATs (Japan Medical Association Teams) as the name for disaster medical assistance teams formed by prefectural medical associations at the level of municipal medical associations and serving in disaster areas under the name of the Japan Medical Association (JMA).

The proposal for the name JMAT is intended to clarify the difference from DMATs

<sup>1</sup> Appendix consists of excerpts from the Report by the JMA's Committee on Emergency and Disaster Medicine released in March 2010.

**Table 1.** Relationship between Municipal Medical Associations in a Disaster Area, JMATs, and DMATs

	Municipal medical associations in a disaster area	JMATs	DMATs (Japan/local)
Pre-disaster (usual conditions)	<ul style="list-style-type: none"> <li>Organize teams, register team members</li> <li>Conduct training</li> </ul>		<ul style="list-style-type: none"> <li>Coordinate with the JMA and prefectural medical associations</li> </ul>
Immediately after disaster (before DMATs arrive)	<ul style="list-style-type: none"> <li>Voluntary activities by the medical association in the disaster area</li> </ul>	<ul style="list-style-type: none"> <li>Standby, prepare for mobilization</li> <li>Prefectural medical associations in disaster areas → JMA → Request for mobilization from prefectural medical associations (mobilization at own discretion → retrospective approval by the JMA and prefectural medical associations)</li> </ul>	<ul style="list-style-type: none"> <li>Standby, prepare for mobilization</li> </ul>
Very early period of disaster			<ul style="list-style-type: none"> <li>Mobilization</li> <li>Take action under direction of supervising DMAT personnel</li> </ul>
After arrival of DMATs	<ul style="list-style-type: none"> <li>Cooperate with JMATs</li> </ul>	<ul style="list-style-type: none"> <li>Triage patients, take other action at evacuation shelters and temporary medical care facilities in collaboration with DMATs</li> <li>Cooperate with and support municipal medical associations in a disaster area</li> </ul>	<ul style="list-style-type: none"> <li>Take action under direction of supervising DMAT personnel</li> </ul>
After withdrawal of DMATs	<ul style="list-style-type: none"> <li>Rebuild healthcare system in disaster area</li> <li>Resume usual healthcare</li> </ul>	<ul style="list-style-type: none"> <li>Place DMAT members who continue to engage in disaster healthcare after DMAT withdrawal in JMATs</li> <li>Evaluate withdrawal phase.</li> </ul>	

(Disaster Medical Assistance Teams) and also includes the following meanings: these are the JMA's disaster medical assistance teams; they cover all of Japan through all the prefectural and municipal medical associations; and they take over from Japan and local DMATs.

JMATs go on standby and then into action based on requests from the JMA to prefectural medical associations (including retrospective approval). JMATs mainly provide healthcare during the acute phase of a disaster.

ter, cooperation with medical associations in the disaster areas, and activity support while sharing roles with and collaborating organically with DMATs (Japan/local) and medical associations in the disaster areas during an uninterrupted period of time starting immediately after the occurrence of a disaster.

However, arrangements need to be made to avoid competition between requests from the JMA and requests from prefectural governments based on agreements for healthcare during a disaster.

## (2) Regarding Basic policy for JMATs

A. JMATs should be organized based on a **Basic Policy for JMATs**. JMATs' relationship with the JMA, prefectural medical associations, and municipal medical associations is as depicted in Table 1, Figs 1 and 2

Clarification of the roles of the JMA, prefectural medical associations, and municipal medical associations, the composition of JMATs, training structure, contents of activities, and the division of roles and collaboration with DMATs (Japan/local) will all be important.

B. Many prefectural and municipal medical associations have already entered into disaster medical assistance agreements with government administrations prescribing the dispatch of disaster medical assistance teams by the medical association.<sup>2</sup>

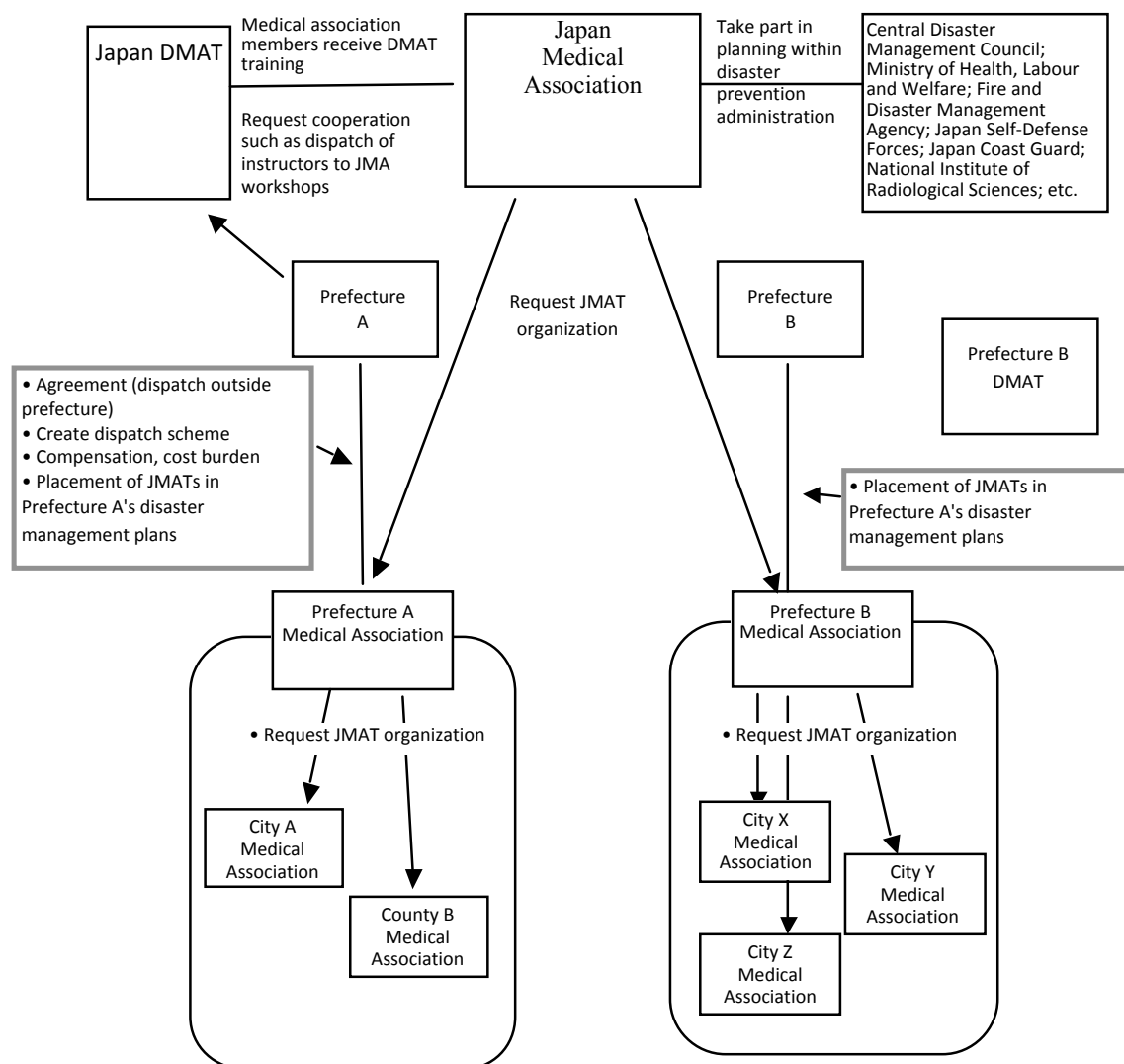
The JMA and prefectural medical associations need to work out a balance between JMATs and these already existing teams through exchange of opinions and discussion during the processes of creating JMATs.

Moreover, in order to implement medical association-based medical assistance activities nationwide, existing teams that meet the requirements for JMATs shall be recognized as JMATs, and for those that do not meet the requirements, measures need to be taken so that they fall in line with the Basic Policy for JMATs.

C. It is also important for each medical association to have the view that it could

<sup>2</sup> According to a survey conducted in June 2001 by the JMA on medical associations' disaster healthcare systems, the dispatch of disaster medical assistance teams was prescribed in agreements between 35 prefectural medical associations and prefectural governments (Fiscal 2000-2001 report by the JMA's Committee on Emergency and Disaster Medicine).





**Figure. 1** Depiction of JMATs, Japan Medical Association, Prefectural Medical Associations, and Municipal Medical Associations during a Disaster

become the victim of a disaster. Especially in the case of a large-scale disaster, situations are envisioned in which a municipal medical association in a disaster area ceases to function and cannot take action as a JMAT. Accordingly, in parallel with the establishment of the JMAT system, municipal medical associations need to cooperate with municipal governments and establish a system that, even in such an event, will enable nearby members in private practice

to voluntarily and systematically gather at evacuation shelters and temporary medical facilities and engage in disaster medical assistance activities.

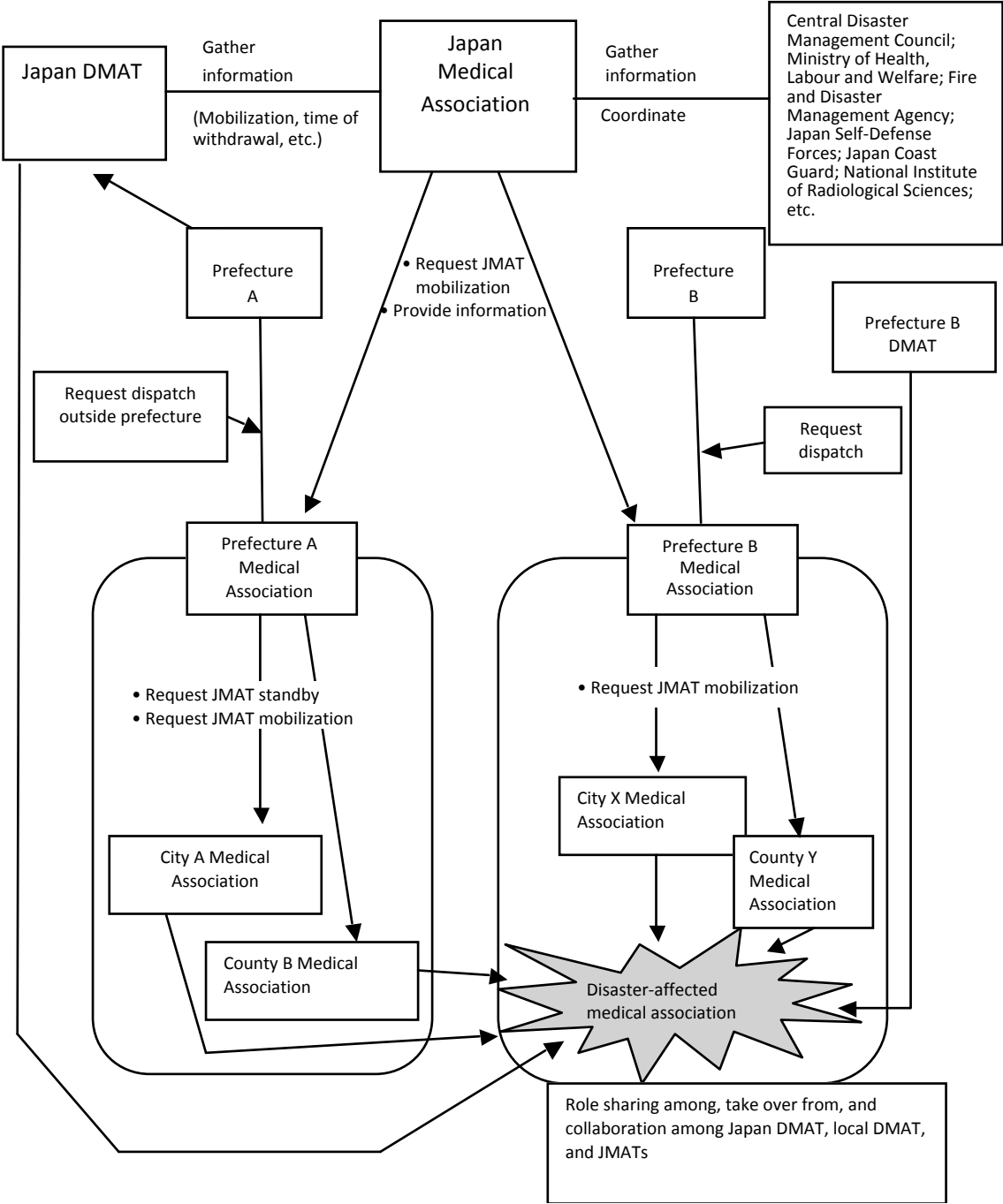
## 2. Basic Policy for JMATs

### (1) Roles of the JMA, Prefectural Medical Associations, and Municipal Medical Associations

#### A. Role of the JMA (Table 2)

##### 1) Promoting the signing of disaster medical assistance agreements between prefectural medical associations and prefectural governments

- With a prefecture-by-prefecture structure in which the government administration requests the medical association to dispatch teams, the system becomes inefficient in a disaster outside the prefecture



**Figure. 2** Depiction of JMATs, the Japan Medical Association, Prefectural Medical Associations, and Municipal Medical Associations during Usual Conditions

**Table 2.** *Role of the Japan Medical Association*

Usual conditions (pre-disaster)	During a disaster
<ul style="list-style-type: none"> <li>• Request prefectural medical associations to organize JMATs</li> <li>• Coordinate with relevant national agencies</li> <li>• Coordinate with hospital organizations</li> <li>• Promote the signing of disaster medical assistance agreements between prefectural medical associations and prefectural governments               <ul style="list-style-type: none"> <li>- Ascertain the status of disaster medical assistance agreements in each area</li> <li>- Provide useful information, such as sample agreements for reference</li> </ul> </li> <li>• Coordinate with Japan DMAT; request cooperation in JMAT training</li> </ul>	<ul style="list-style-type: none"> <li>• Request prefectural medical associations to put JMATs on standby and to dispatch JMATs</li> <li>• Decide the order and length of dispatch for JMATs from each prefecture</li> <li>• JMAT activities               <ul style="list-style-type: none"> <li>- Gather information on the ground; request materials needed</li> <li>- Provide medical care</li> </ul> </li> <li>• JMAT logistical support               <ul style="list-style-type: none"> <li>- Gather information from the national government</li> <li>- Provide information to prefectural medical associations</li> </ul> </li> <li>• Negotiate with the national government               <ul style="list-style-type: none"> <li>- Infections disease, community health measures</li> <li>- Health services covered by health insurance</li> <li>- Support for rebuilding of medical institutions (e.g., government subsidies, preferential tax treatment, public financing)</li> <li>- Taking part in revising national disaster healthcare measures</li> </ul> </li> </ul>

or in a wide area disaster affecting more than one prefecture. Accordingly, the JMA will promote the signing of bundled agreements between prefectural medical associations and prefectural administrations either in blocks or at the nationwide level through an occasion arranged by the JMA.

- The JMA will seek inclusion in the agreements of provisions for cases in which the prefectural medical associations concerned act as JMATs.
- The JMA will seek inclusion in the agreements of provisions for cases in which JMATs are sent to a disaster site outside the prefecture.
- The JMA will seek to have DMAT personnel who wish to remain on-site after DMAT activities are concluded and engage in the medical association's disaster medical assistance activities recognized as JMATs.
- The JMA will periodically collect information and provide feedback about matters such as the status of the conclusion of agreements by each prefectural medical association, the contents of agreements, actual examples of disaster responses, and the status of revisions, in an attempt to enhance agreement contents and prevent

agreements from becoming a mere shell (including in addition to agreements between prefectural medical associations and government administrations, agreements among medical associations within blocks and agreements between prefectural medical associations and municipal medical associations in their jurisdiction).

## 2) Logistical support for local medical associations and JMATs

- It will be necessary during a disaster to work with relevant national agencies to gather needed information and provide it to local medical associations and JMATs. Particularly in regards to special disasters (CBRN: chemical, biological, radiological, and nuclear), important information will include an overview of the disaster, conceivable diseases and their diagnostic methods, main symptoms, coping strategies, measures to prevent secondary disasters such as radiation exposure and contamination, and the system for reporting to government administrations.
- It is also necessary, in order to make JMATs' activities effective, to secure in JMATs the participation of specialists with experience determining the need for DMATs and other disaster medical as-

sistance teams and deciding the areas to which they should be dispatched.

## 3) Taking part in revising disaster healthcare measures

National disaster healthcare measures may be revised based on lessons learned from a disaster. The JMA will take part, from the standpoint of community healthcare, in the work of revising the basic disaster management plans and the Guidelines on the Establishment of Healthcare System in Times of Disaster.<sup>3</sup>

## B. Role of Prefectural Medical Associations (Table 3)

### 1) Signing of disaster medical assistance agreements with prefectural governments

In order to dispatch JMATs to a disaster area, prefectural medical associations have to have signed an agreement with the government administration in advance and include provisions such as the following regarding JMATs:

<sup>3</sup> One of what are called the Four Diseases and Five Programs.

- Position within the prefectural disaster management plan and disaster healthcare plan
- Content of operations
- The administration's (prefectural government) burden of status-based compensation, expense reimbursement.
- A provision to the effect that in a disaster the medical association will mobilize teams at its own discretion and the government administration will grant retrospective approval and provide status-based compensation and expense reimbursement.
  - The criteria for mobilization has to be clarified for application of a retrospective approval provision
  - This is to establish a rapid response system, although the dispatch of disaster medical assistance teams is on a "request basis."
- A provision for applying the above two points even if the deployment destination is outside the prefecture.

- A provision included in case the disaster area is in another prefecture.
- A provision with a one-year review clause.
  - This is to avoid the agreement becoming a mere shell or dead letter in addition to dealing with such things as the emergence of a new disaster, administrative organizational reform, and system reforms.

## Notes

- The Niigata Medical Association has, through the Basic Plan on Disaster Healthcare and Relief Activities by the Prefectural Medical Association, provided for status-based compensation and reimbursement of expenses in the event that members of the association or a municipal medical association work as relief activity personnel during a disaster (this does not apply, however, in cases where a work allowance for the relief squads, reimbursement of expenses, and compensation are provided in accordance with the

provisions of the Disaster Relief Act, nor in cases where, regardless of the application of the Disaster Relief Act, Niigata Prefecture provides reimbursement of expenses associated with the turnout of relief squads provided for in the Niigata Prefecture Disaster Healthcare and Relief Activity Manual).

- Actual costs are to be reimbursed for drugs and medical supplies used in the event a member turns out for work during a disaster.
- Allowances for turning out to work are 17,400 yen per day and reimbursement of travel expenses is as stipulated in the medical association's regulations concerning travel expenses.
- Coverage by ordinary accident insurance: Coverage provided for up to 10 physicians and 20 nurses with a benefit of 50 million yen on the death or physical impairment of a physician.
- The Aichi Medical Association has made a contract with an insurance company for

**Table 3. Role of Prefectural Medical Associations**

Usual conditions (pre-disaster)	During a disaster
<ul style="list-style-type: none"> <li>• Request municipal medical associations to organize JMATs</li> <li>• Coordinate with prefectural government agencies (medical, public health, welfare, and fire and disaster management authorities), the police, the Japan Self Defense Forces, and the Japan Coast Guard</li> <li>• Coordinate with nuclear power facilities</li> <li>• Participate in disaster drills conducted by the prefectural administration</li> <li>• Coordinate with hospital organizations</li> <li>• Take part in establishing prefectural disaster management plans and disaster healthcare plans</li> <li>• Sign disaster medical assistance agreements with the prefectural government</li> <li>• Coordinate with Japan DMAT-designated medical institutions and local DMATs</li> <li>• Conduct JMAT training</li> </ul>	<ul style="list-style-type: none"> <li>• Request municipal medical associations to put JMATs on standby and to dispatch JMATs</li> <li>• Decide the order and length of dispatch for each JMAT</li> <li>• Provide information to municipal medical associations</li> <li>• Negotiate with the prefectural government               <ul style="list-style-type: none"> <li>- (In the event of a disaster outside the prefecture) Obtain approval of the governor when sending JMATs outside the prefecture</li> <li>- Burden of expense for JMATs</li> </ul> </li> </ul> <p>&lt;Afflicted medical association&gt;</p> <ul style="list-style-type: none"> <li>• Ascertain the situation in the disaster area</li> <li>• Request the JMA to dispatch JMATs</li> <li>• Request cooperation from block and nearby medical associations</li> <li>• Gather information from the prefectural government, and provide information to municipal medical associations</li> <li>• Negotiate with the prefectural government               <ul style="list-style-type: none"> <li>- Secure means of transport for JMATs</li> <li>- Infections disease, community health measures, health services covered by health insurance</li> <li>- Support for rebuilding of medical institutions (e.g., government subsidies, preferential tax treatment, public financing)</li> </ul> </li> <li>• Take part in revising prefectural disaster healthcare measures</li> </ul>



the Aichi Medical Association Information Center Disaster Compensation Plan, which will provide status-based compensation for physicians and nurses requested by the Center to provide medical care.

- Physicians and nurses (insurance coverage for 50 people)
- Death or physical impairment benefit: 70.14 million yen.

## 2) Role of prefectural medical associations in municipal medical associations

Prefectural medical associations will create a manual and standardize the activities that should be taken by municipal medical associations during a disaster in order to enable uniform activities.

Prefectural medical associations will promote collaboration between municipal medical associations and DMATs (Japan/local) through disaster drills. They will also arrange for DMAT physicians and others to give lectures for municipal medical associations.

## C. Role of Municipal Medical Associations

The role of municipal medical associations is as shown in Table 4.

### (2) Composition of JMATs

In Japan, private hospitals (including those run by medical corporations and individuals), which are relatively small and medium sized hospitals, account for 70.6% of all hospitals and accept the vast majority of emergency patients. In regional areas, private-practice physicians who went independent with their respective specialties look after patients with a wide range of conditions.

JMATs will be underpinned by these kinds of medical resources. In other words, JMATs will mainly be composed of physicians and nursing personnel working in small and

medium sized hospitals and association members who run their own clinic.

However, small and medium sized hospitals are faced with a serious shortage of physicians and nursing personnel, and so participation in JMATs could be difficult. Also, it is not always the case that emergency physicians can participate.

Conversely, association members who run their own clinic will have to close their clinic while mobilized and so cannot participate in long-term activities.

Taking as a reference the Oita DMAT, which reflects the medical context in a prefecture where hospitals are mostly small and medium sized and in some cases there is only one hospital in a large area, the smallest possible unit is a team of two people (one physician and one nurse), and it is conceivable

that other co-medical personnel and a logistics expert could be added at the discretion of the prefectural medical association. Also, teams need to be organized on the presumption of short-term rotation.

### (3) Training of JMATs

The JMA should provide support for the implementation of JMAT training in each region. For example, it should set out a Standard JMAT Training Curriculum, taking as a reference the Japan DMAT's four-day training program, minus parts such as staging care units (SCU). At the same time, it should request cooperation from Japan DMAT and seek the dispatch of instructors to JMAT training sessions.

JMAT training should be open to persons who have completed a training session based on the existing JMA Advanced

**Table 4. Role of Municipal Medical Associations**

Usual conditions (pre-disaster)	During a disaster
<ul style="list-style-type: none"> <li>• Organize JMATs and register team members</li> <li>• Coordinate with municipal agencies (medical, public health, and welfare), fire departments, and the police</li> <li>• Take part in establishing municipal disaster management plans and disaster medical care plans</li> <li>• Sign disaster medical assistance agreements with the administrators of airports.</li> <li>• Coordinate with nuclear power facilities, chemicals factories.</li> <li>• Conduct JMAT training</li> <li>• Create a system for healthcare activities in case of a disaster in one's own municipality and conduct drills</li> </ul>	<ul style="list-style-type: none"> <li>• Organize and mobilize JMATs</li> </ul> <p>&lt;Afflicted medical association&gt;</p> <ul style="list-style-type: none"> <li>• Ascertain disaster situation               <ul style="list-style-type: none"> <li>- Medical institutions within jurisdiction</li> <li>- Patients receiving medical treatment at home, people needing nursing care</li> <li>- Stationing of evacuation shelters and temporary medical care facilities</li> <li>- Healthcare needs</li> </ul> </li> <li>• Request the prefectural medical association to dispatch JMATs</li> <li>• Request cooperation from nearby municipal medical associations</li> <li>• Provide information to members</li> <li>• Negotiate with municipal agencies               <ul style="list-style-type: none"> <li>- Infections disease, community health measures, health services covered by health insurance</li> <li>- Support for rebuilding of medical institutions (government subsidies, preferential tax treatment, public financing)</li> <li>- Securing means of transport for JMATs</li> </ul> </li> <li>• Take part in revising city disaster healthcare measures</li> </ul>



Cardiovascular Life Support (ACLS) Training program and should be eligible under the JMA's continuing education system.

The content of training should include training on determining when to withdraw and leave the situation in the hands of physicians and medical institutions in the disaster area.

Also, currently DMATs are designated on a hospital basis, but a policy needs to be considered that will enable individual member physicians to receive DMAT training.

For instance, a conceivable method for having members participate together with the physicians and staff of a DMAT-designated medical institution would be to have the prefectural medical association gather together member physicians within the prefecture who wish to take DMAT training and have, for example, a hospital physician and nurse from hospital A and a private-practice physician from clinic B participate as one group.

#### (4) Contents of JMAT activities

Activities that JMATs will be required to perform are not the extremely early disaster medicine like that provided by DMATs; rather, they are healthcare in the acute phase of a disaster, cooperation with medical associations and other organization in the disaster area, and activity support.

Members of a disaster-affected medical association are engaged in healthcare for survivors even though their own clinics have been afflicted. It is medical association in the disaster area that can handle the provision of healthcare based on information about dialysis or perinatal care that medical institutions in the disaster area have performed or about the whereabouts of patients receiving house calls, patients undergoing oxygen therapy at home, elderly people living alone, and persons needing nursing care. JMATs' role played in cooperation with the medical

association of the disaster area is therefore important.

Activities such as the following are conceivable as the main activities of JMATs:

- On-site triage
- Ascertaining needed medical supplies and requesting their delivery
- Healthcare at evacuation shelters and temporary healthcare facilities
  - Providing healthcare in the early phase of the disaster
  - Implementing measures such as infection control measures and countermeasures against disuse syndrome
  - Continuity of healthcare from before the accident: dialysis, perinatal, geriatric, and home care.
- Supporting continuation of medical and nursing care by association members in the disaster area
- Giving advice to the on-site countermeasures headquarters centered on the afflicted medical association (arrangement of disaster medical assistance teams, determination of withdrawal period, baton passing to successor teams)

#### (5) JMATs and local DMATs

Separately from Japan DMAT, local DMATs are organized in various locations around the country. Their main scope of activity is natural disasters within a prefecture and urban disasters such as traffic accidents.

Local DMATs' degree of conformity to Japan DMAT operating procedures, requirements for DMAT-designated medical institutions, team composition (physicians, nursing personnel, clerical staff, and logistics experts), completion of Japan DMAT training, mobilization criteria (scale of disaster, number of patients affected by the disaster), and other attributes differ according to local characteristics such as the medical context in the prefecture.<sup>4</sup>

<sup>4</sup> Based on data for Oita DMAT and Kochi DMAT.

The Oita DMAT established at the suggestion of the Oita Medical Association, for example, has characteristics including a team composition of one physician plus one nurse as a the smallest unit size, a scope that includes small-scale disasters and accidents in the prefecture (at least one injured person), the ability to mobilize on independent discretion in an emergency, and no limiting of DMAT-designated hospitals to core disaster hospitals and critical care centers.

Prefectural medical associations should be involved in the establishment and operation (system establishment, DMAT member registration, training, after-the-fact inspection) of local DMATs aimed mainly at disasters within the prefecture and should also clarify the sharing of roles and coordination with JMATs.

Moreover, by having local DMAT physicians conduct JMAT training, DMAT and medical association members can communicate with each other.

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## Fukushima Nuclear Power Plant Accidents Caused by Gigantic Earthquake and Tsunami—Healthcare Support for Radiation Exposure

### 1. Introduction

In the magnitude 9.0 Great Eastern Japan Earthquake that occurred at 14:46 on March 11, 2011, nuclear reactors in operation went into emergency shutdown. The six reactors at the Tokyo Electric Power Company's (TEPCO) Fukushima Daiichi Nuclear Power Plant, including reactors that were shut down beforehand for periodic inspection, and the four reactors at TEPCO's Fukushima Daini Nuclear Power Plant were all shut down (Picture 1).

Of these, reactors 5 and 6 at the Daiichi Plant, which had already been shut down, and reactor 4 at the Daini Plant seemed to have reached the condition of a cold shutdown. Later, however, reactors 1–4 at the Daiichi Plant lost backup power [1]. At 16:36 the emergency core cooling system for reactors 1 and 2 at the Daiichi Plant stopped working, starting the nuclear power plant crisis. At 19:03, Prime Minister Kan issued Japan's first Declaration of a Nuclear Emergency Situation. At 21:23, people within 3 km of the Daiichi Plant were instructed to evacuate and those within the zone between 3 km and 10 km from the facility were told to stay indoors.

### 2. Progression of the nuclear power plant accident

At 15:36 the following day a hydrogen explosion occurred at reactor 1, which was feared to have gone into meltdown. At 18:25 the evacuation order around the Daiichi Plant was expanded to a 20 km radius

and an earnest evacuation of residents was implemented using buses and other means. At 11:01 on March 14 there was a hydrogen explosion at reactor 3, where cooling was feared since the day before to have stopped. It was said that the reactor had been running on MOX fuel, which is a mix of plutonium and uranium for a plutonium-thermal project.

On March 15, an explosion and fire were reported at reactors 2 and 4, respectively. In addition to an evacuation order within 10 km around the Daini Plant, which is about 10 km south of the Daiichi Plant, at 11:00 a.m. the government instructed nearly 140,000 people living within the zone 20–30 km around the Fukushima Daiichi Plant to stay indoors.

From the 17<sup>th</sup> the Ground Self-Defense Forces and Tokyo Fire Department started spraying water from the outside to cool the reactors. In the meantime, contamination with radioactive iodine and cesium from near the plant to the far-away Tokyo metro-

politan area was reported in the news. Later, on March 31 the contamination of ocean water was reported, and then on April 4 the marine contamination progressed with the release of over 10,000 tons of contaminated water into the ocean from the Daiichi Nuclear Power Plant. It became impossible to ship dairy and agricultural produce from the contaminated region, and the interruption of fishing was prolonged. Additionally, on March 17 the United States independently issued a recommendation for evacuation outside an 80 km zone around the plant. Harmful rumors and misinformation caused a reluctance to buy foods and other products from Fukushima, resulting in distribution paralysis and shortages.

### 3. The Japan Medical Association's response

I experienced the earthquake in my house adjoining a hospital in the city of Iwaki, Fukushima, more than 50 km away from TEPCO's Fukushima Daiichi Nuclear Power Plant. Immediately after the earthquake struck I contacted the Japan Medical Association (JMA). A countermeasures headquarters was set up and I started activities to respond to the devastated areas as the officer responsible for emergency and disaster operations.

In addition to seismic damage, the Great Eastern Japan Earthquake caused a gi-



Fukushima Daiichi Nuclear Power Plant



Fukushima Daini Nuclear Power Plant

**Picture 1. Fukushima Daiichi and Fukushima Daini Nuclear Power Plants**  
(Source: TEPCO. <http://www.tepco.co.jp/index-j.html>)

gantic tsunami that dramatically devastated over 500 km of Eastern Japan's Pacific coastline, resulting in nearly 25,000 dead or missing. On top of this, Fukushima prefecture suffered damage from the coastal nuclear power plant accidents and associated harmful rumors and misinformation.

I also started coordinating with the local Iwaki Medical Association. In Iwaki alone 14,000 evacuees were confirmed in about 140 shelters. The government's orders to evacuate the zone 20 km from the Daiichi Nuclear Power Plant and to stay indoors in the 20–30 km zone meant in effect that nearly the entire central part of Fukushima's

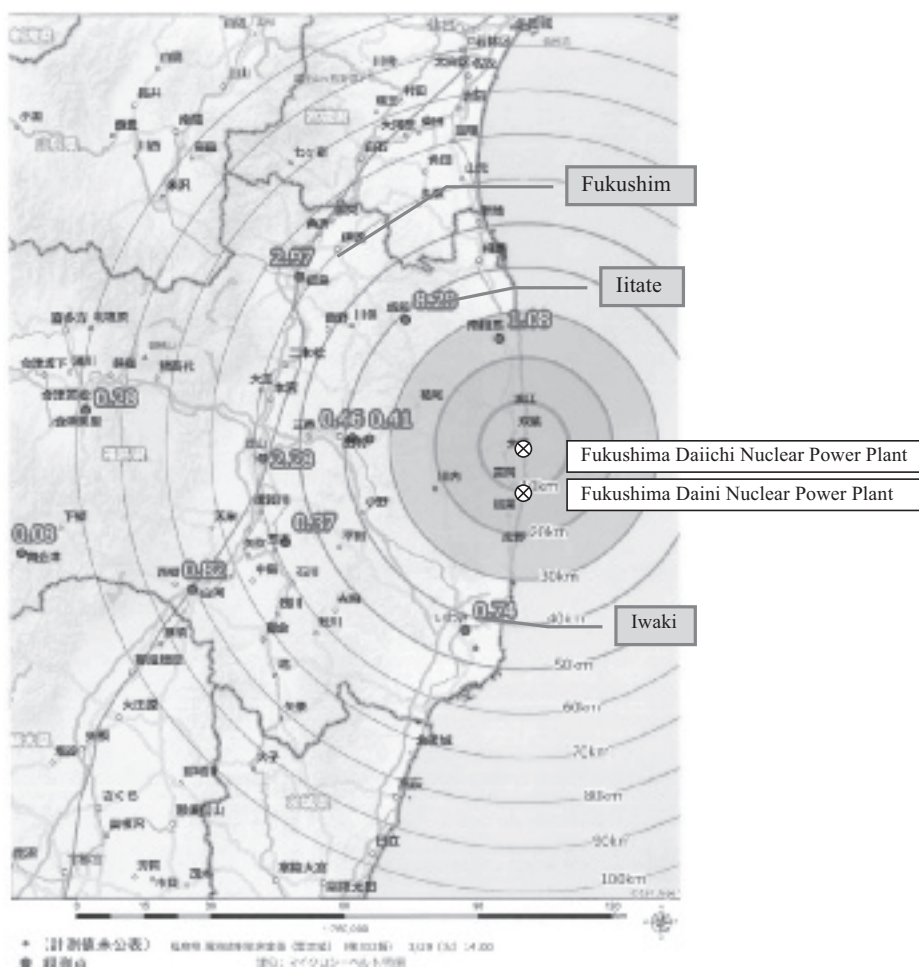
Pacific coastal region, which was hardest hit by the earthquake and tsunami, were shut off from social activities.

They also required adequate medical care setup at first-aid stations including healthcare for radiation exposure. This considerably weighed down the initial movements in Fukushima, especially along the coast, despite healthcare support provided in the afflicted areas by more than 1,000 Japan Medical Association Teams (JMATs) from outside the region.

To be sure, even at my own hospital the situation during the first week was of working in the midst of an unfathomable chill brought on by the lack of real-time information from the ground or even from TEP-  
CO and the government.

To deal with the seriousness of this problem, the JMA, with the cooperation of Yoshinari Kimura, a lecturer in the Graduate School of Literature and Human Sciences at Osaka City University, created a map of published air contamination levels in Fukushima's coastal areas and made daily updates to the data, which it released for JMA members on its website (Picture 2). The JMA also requested Nagasaki University to dispatch experts in healthcare for radiation exposure. Professors Shunichi Yamashita and Noboru Takamura responded immediately and became advisors to Fukushima prefecture's disaster countermeasures headquarters.

The effort to share and get reliable information out in this way resulted in obtaining sufficient healthcare support from the eighth day for Iwaki and Soma, which are the principal coastal cities, as well as for the city of Mina-misoma, which is partially inside the 20–30 km stay-indoors-zone, and enabled excellent first-aid station healthcare (Fig 1) [2]. Additionally, Professors Yamashita and Takamura gave lectures throughout the prefecture for evacuees and residents. This communication of evidence-



**Picture 2. Onion diagrams of radioactivity readings in Fukushima prefecture.** These diagrams were prepared with the help of Yoshinari Kimura, a lecturer in the Graduate School of Literature and Human Sciences at Osaka City University, based on preliminary environmental radioactivity readings in Fukushima prefecture. The diagram included here is based on readings taken at 14:00 on March 29. A reading of 2.23 was recorded in Iwaki on March 22 and a high reading of 13.1 was recorded in Iitate on March 23, but these gradually declined afterward. On April 26, when publication of these maps was concluded, the reading in Iwaki was 0.27 and that in Iitate was 4.07.



	Number of Teams	March 11-31	April 1-15	April 16-May 4
JMA&Okayama MA	1			
Aichi MA	20			
Toyama MA	12			
Kyoto MA	5			
Tokyo MA	7			
Fukuoka MA	15			
Saitama MA	2			
Chiba MA	1			
Nagasaki MA	2			
Total	65			
* MA: Medical Association				

**Figure 1. Calendar of JMAT dispatches to Iwaki.** *The period of dispatch is from the time a team leaves home until it returns. So, this may differ from the time actually spent in action in the afflicted areas. There are also instances of multiple teams being dispatched on the same day.*

based information to the mass media and local residents play an important role.

## 4. Healthcare for radiation exposure

The Japanese government had been conducting annual evacuation drills with administrative agencies, residents, and medical personnel in the prefectures where the nation's nuclear power plants and their 54 reactors are located. These drills were conducted under the policy of the Nuclear Safety Commission as a measure for improving medical responses, including persons associated with the local medical association, through lectures on healthcare for radiation exposure and other activities. This policy was implemented after the Tokai Village JCO Criticality Accident that occurred in Tokai, Ibaraki, which borders Fukushima's southern coastal area, in 1999. In addition, the government established guidelines for taking iodine tablets in the event of an accident at a nuclear power plant, distributed iodine tablets to residents living within 20 km of nuclear power plants, and put survey meters in place to monitor radioactive contamination.

I myself had gone through training sessions in airport disaster prevention and health-

care for radiation exposure in addition to my specialty of neurosurgery due to the fact that I had been in charge of emergency and disaster medicine as vice-president of the Fukushima Medical Association and president of the local medical association in Iwaki, Fukushima, to the north of which are TEPCO's Fukushima nuclear power plants and to the south of which is the Tokai Nuclear Power Plant in Ibaraki. I also attended an unforgettable intensive symposium on disaster medicine focusing on bioterrorism among the issues of NBC (nuclear, biological, and chemical weapons) at the World Medical Association (WMA) General Assembly held in Washington DC in 2002. From the beginning when I was nominated an executive board member of the JMA five years ago in 2006, I was in charge of emergency and disaster medicine. In that capacity I participated in relevant committees in the Japanese government as well as continuing discussion in the JMA's Committee on Emergency and Disaster Medicine. I was also appointed to be a member of the Radiation Emergency Medicine Network in the National Institute of Radiological Sciences, which is in charge of healthcare for radiation exposure in Eastern Japan.

The Iwaki City, where the facilities in my medical corporation are located, is a little

less than 30 km away from TEPCO's Fukushima nuclear power plants at the northernmost point, and more than 50 km away from the Tokai Nuclear Power Plant. Since it is outside the 20 km zone around both plants Iwaki is not located in a special administrative zone like the one mentioned above.

Nevertheless, with a population of 350,000 it is the second largest city in the Tohoku region, which encompasses the northern part of the island of Honshu, and is home to the region's only critical care center. It also has a local network of about 30 hospitals and so as a medical district it covers both areas where the nuclear power plants are located and has relevance on various other levels such as industrial medicine activities. For this reason, it is an area that must function as a support center on the medical front once a special disaster occurs, such as an accident at a nuclear power plant. It used to be customary to send a number of teams besides those that were in charge to participate in the Fukushima Nuclear Power Plant's annual evacuation drill.

However, at the government level no measures were implemented for Iwaki, since it is outside the 20 km zone. For that reason, when a disaster prevention agreement was signed between the city and the municipal medical association, on the advice of the medical association a stockpile of iodine tablets for 300,000 people was put in the Iwaki Health and Welfare Center under the control of the center's director.

On top of this it seems undeniable that information released by the government and TEPCO was in each case, in terms of both the amount and the speed with which it was released, fragmentary and too little, too late. This did nothing to dispel the past image of information relating to nuclear power plants being, for example, falsified or concealed and then apologies given later with declarations of intent to make improvements. Evacuation drills with the admin-



istration, residents, and medical personnel had been conducted for more than 10 years and people had been educated every year about outside contamination checking and the taking of iodine tablets. Through this kind of process, the local residents chose the position of a place where a nuclear power plant is located for nuclear power generation by TEPCO, which does not make the power used by these residents.<sup>1</sup>

That is all the more reason why there is still doubt over whether there was a need for people to all suddenly follow along and gather together like abductees without even being able to lock their houses or get cash or their iodine tablets to carry in a situation like this where detailed information was not made known. During the usual drills, forecasts and contamination levels based on the Ministry of Education, Culture, Sports, Science and Technology's System for Prediction of Environmental Emergency Dose Information (SPEEDI) had been reliably disclosed, but unfortunately it does not seem that such thorough procedures were taken to gain the understanding of residents this time.

During this disaster the Ministry of Health, Labour and Welfare raised the limit for workers' radiation exposure at the site of a nuclear power accident from 100 mSv/y to 250 mSv/y. So far two cases of hospitalization due to beta radiation exposure and several cases of internal exposure have been reported, but none entailed serious consequences.

On the other hand, the exposure limit for the general public has been at 1–20 mSv/y. Thus far no serious cases of radiation exposure have been reported, including among evacuees. The shipping of vegetables and marine products from the 20 km zone and designated areas was banned. In other areas beside these the drinking of water from

sources that had exceeded threshold values was banned, and the shipping of vegetables, fish, and other products was temporarily banned. These bans were lifted one by one after the measurements were detected to fall below the threshold values.

Additionally, the JMA made an urgent recommendation regarding residual contamination on school grounds in Fukushima prefecture, namely that even if contamination is below 20mSv/y in the case of children steps should be taken to reduce the contamination as much as possible, such as removing top soil and plowing to replace surface soil with subsoil [3].

## 5. Conclusion

The nuclear power accidents triggered by the Great Eastern Japan Earthquake caused air, soil, and marine pollution in the vicinity as a result of the meltdown of three fuel rods, hydrogen explosions in the reactor buildings, and other factors.

Residents living within a zone with a radius of 20 km around the Fukushima Daiichi Nuclear Plant and even some residents outside that zone are still in a state of evacuation, having been compelled to take shelter or been part of scheduled evacuations. Although the power plant itself has not yet reached a cold shutdown, it has been brought into a stable situation through cooling with continuous injection of water from the outside.

In this situation the JMA, in cooperation with the Fukushima Medical Association and local medical associations, provided health and medical assistance to evacuees mainly in evacuation shelters and supported damaged local healthcare. This resulted in the dispatch of JMATs to Fukushima prefecture being nearly over in mid-June.

During this incident I felt keenly once again that basically it is extremely impor-

tant to get sufficient information to medical professionals in order to provide healthcare for radiation exposure, which entails dealing with damage caused by radiation that cannot be seen. Additionally, the continual communication of robust information from medical professionals to residents contributed to people's peace of mind.

## Postscript

On June 6, the Japanese government announced that radioactive emissions from the stricken Fukushima Daiichi Nuclear Power Plant in the first week after the March 11 earthquake and tsunami disaster might have been 770,000 terabecquerels, which is more than double the 370,000 terabecquerels initially estimated by TEPCO.

The next day the government admitted the possibility that fuel could have suffered a "melt-through," a more serious situation than a core meltdown. Perhaps this could be said to be the characteristic attitude of TEPCO and the Japanese government during this accident.

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<sup>1</sup> This region uses power from the Tohoku Electric Power Company.

## The Japanese Earthquake and the Role of Medical Society

Several months have passed since the devastating earthquake and tsunami near Tohoku, Japan. The exact number of deaths is still unknown. The recovery effort is expected to cost an astronomical 25 trillion yen. On behalf of KMA, I once again offer my sincere condolences to all people of Japan as a neighboring country and greatly respect Japanese people and colleagues for their strong will to stand up and recover from the unseen disaster. I am sure Japan will be able to recover from this difficult situation with unity and recognize the great leadership and dedicated services in the field by fellow physicians under JMA.

Korea's response to the recent disaster has been remarkably prompt and sensitive. As Japan's closest neighbor, Korea was quickly aware of the seriousness of the earthquake, which was accompanied by a tsunami and nuclear accident. Furthermore, the extended nature of the damage necessitates international coordination and the entire Korean public is aware that Korea's role as friendly neighbor in this coordination is critical.

Due to the complex nature of the disaster, urgent medical tasks include care for chronic conditions such as diabetes and hypertension as well as prevention of contagious diseases such as respiratory conditions and norovirus infection among people living in high density environments including shelters. My impression is that such urgent issues are being well addressed by Japan's own medical capabilities. In the mid to long-term, mental issues related with post-traumatic stress disorder (PTSD) and social problems from sudden family disruptions still pose a grave challenge. The international medical community could play a valuable role here by

continuing interest and research support. Exchange of experience learned from previous disasters will help devise the most effective solutions.

The most formidable challenge would be the response to the nuclear reactor accident and following exposure to radioactive material. Ionizing radiation is defined as radiation that has sufficient energy to displace electrons from molecules. Free electrons can damage macromolecules in human cells. Ionizing radiation arises from both natural and man-made sources. At low-dose exposures, late effects such as cancer are produced many years after the initial exposure. About 3% of total cancers in the US are attributed to ionizing radiation.

Our greatest concern is the possible consequences of a very or extremely low dose of exposure. Epidemiological data is available from several sources such as atomic bomb survivors, nuclear facility workers and uranium miners. However, such data tells us only of results from relatively higher level exposure. Since the annual amount of exposure to all natural radioactivity is around 2.5mSv, the criteria for annual exposure to artificial radioactivity is set at a lower level of 1mSv, which is in turn broken down into radioactivity standards for air, water and food, etc. Considering the potential controversy over such standards, multifaceted analysis of scientific data on a case by case basis is necessary for effective risk communication.

During the Great Depression, the then US President Franklin D. Roosevelt said, "The only thing we have to fear is fear itself." This applies to radioactive contamination. Fueled by the disaster of a public faced with a never before experienced situation, information

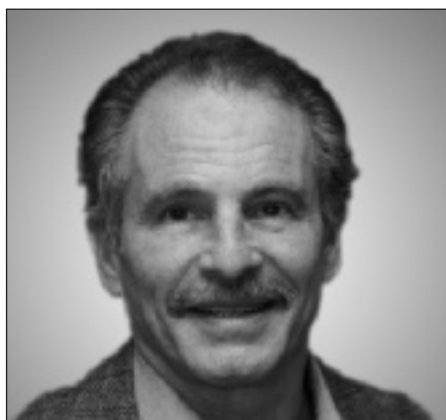
which is not based on science could spread and then further be spun by the social media, creating a malicious cycle of magnifying public concerns. The medical profession is the most accurate and trusted authority when it comes to the impact of radioactive contamination on the human body. The medical communities of Japan and Korea need to play their roles as health communicators by providing accurate and reliable information and behavioral guidelines on radioactive contamination. To fulfill its role, KMA announced its humble recommendations on nuclear contamination immediately following the Japanese disaster.

The radioactive leakage caused by the Japanese earthquake has heightened public interest on environmental protection and energy management. It will be wise for medical professionals to set the right example by practicing proper energy management. The WMA must reiterate the importance of its "Health and Environment" policies such as the New Delhi Declaration on Climate Change and Health and motivate each NMA to implement them in their respective countries. In particular, the campaigns and policy making for creating a greener health care sector need to be adopted by more NMAs, which can in turn motivate patients and the general public to become more active in environmental protection and energy management.

The Japanese disaster is calling upon the health and medical community to step up its social leadership in addition to taking care of humanity and public health. By willingly accepting this leadership role and thoroughly fulfilling our public obligations, the NMAs and the WMA can progress to the next level as organizations that maintain continuous interaction with society.

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## Protecting Our Nation's Health



*Paul R. Epstein*

For 40 years Americans have been breathing easier thanks to common-sense limits on toxic air pollution. But an emerging threat has the medical community concerned – just as the United States Congress begins a new assault on public health protections

In the past two decades, extreme heat events have killed tens of thousands around the globe, including populations here in the United States. Heat waves are more frequent, of longer duration and more intense – and the lack of nighttime relief make them all the more lethal, causing illness and death from heart disease, diabetes, stroke, respiratory disease and even accidents, homicide and suicide.

Increases in winter weather anomalies are emerging. Though winters have become shorter (two-to- three weeks shorter in the Northern Hemisphere, depending on latitude), they have grown more perilous. For several decades more winter precipitation has been falling as rain rather than snow, increasing the chance of ice storms when temperatures do drop. Globally, westerly winds are also changing with climate change, affecting the shifts in weather fronts. Now, warming seas and melting Arctic ice are generating harsher winters in the US and Europe. And heavier, wetter snowstorms can be treacherous for travel and ambulation.



*Cecil B. Wilson*

Meanwhile, warming favors insect migration. In the past decade, case reports of tick-borne Lyme disease rose ten-fold in Maine and northern counties are experiencing Lyme for the first time. In Alaska, especially warm winters have ushered in swarms of allergy-inducing, stinging insects, along with mosquitoes and devastating pine bark beetle infestations. The spread of forest and crop pests – requiring chemicals for control – pose additional long term health and environmental risks.

Elevated carbon dioxide levels from burning fossil fuels boosts pollen production from ragweed, and the pollen grains hitch rides on particulates from diesel and coal combustion, helping to deliver the allergens deep inside our lungs. Meanwhile, the allergy and asthma season has lengthened some two-to-three weeks, while, since 1980, asthma rates have more than doubled in the U.S. In short, climate change is hazardous to our health. We are deeply concerned that climate instability and changing weather patterns threaten our health and the vitality of our life-support systems. The American Medical Association is working actively to educate health care professionals about the projected rise in climate-related illness. Medical and public health groups are also taking leading roles in advocating for climate and energy policies, and measures – like electric

vehicles, “smart” grids and healthy cities initiatives – that will improve public health, create jobs and combat climate change. And physicians and other health care professionals have begun serving as role models for patients by adopting environmentally responsible, energy- and waste-reducing practices in the health sector. As medical professionals, our focus is first and foremost on preventing health threats, but a new report from the U.S. Environmental Protection Agency (EPA) makes a clear economic case for more action. In one year alone, the Clean Air Act, prevented an estimated 18 million child respiratory illnesses, 850,000 asthma attacks, 674,000 cases of chronic bronchitis, and 205,000 premature deaths. According to EPA, “The mere monetary value of saving Americans from those harms through implementing the Clean Air Act is projected to reach \$2 trillion in 2020 alone ... Over the period from 1990 through 2020, the monetary value to Americans of the Act’s protection is projected to exceed the cost of that protection by a factor of more than 30 to 1.”

Lawmakers may be unaware of the stunning returns on our investments in clean air, the range of benefits from EPA’s efforts to protect us from greenhouse gas pollution, and of the work that still needs to be done. The protections some in Congress are now seeking to undercut call on big power plants and factories to adopt cost-effective efficiency measures. Greater efficiency means lower combustion of fossil fuels, which translates directly into a reduction of mercury, particulate matter, and other health-threatening pollutants.

Now is the time to use our 40 years of experience in reducing air pollution to reduce greenhouse gases and the co-pollutants. The harm to our health and our well-being, and the associated health and social costs, will continue to mount unless we take action.

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## Strengthening and Promotion of Working Population as the Base of Socioeconomic and Demographic Policies in the Russian Federation



Nicolay Izmerov

Health of a nation determines the quality of workforce, the latter being the base of any state economic model. While developing innovative economy, Russia has faced various challenges connected with progressing insufficiency of workforce, which is tackled everywhere as one of the main long-term strategic risks and threats to national safety in the field of economic growth. (Russian Federation National Safety Strategy Until 2020 adopted by the RF President's Decree No. 537 of 12.05.09) (Figure 1, 2, 3).

Insufficiency of workforce is explained above all by age and sex structures. Small population groups born in the 1990s have started their active working life while numerous after-war working cohorts (born after World War II) are dropping out of the working-age population (Figure 4).

In accordance with Rosstat (Official Russian Statistics Agency), the reduction of working-age population will reach the figure of 13 million people by the year 2030. 80% of losses are expected to occur during the period until 2020 on the average by 1 million of people annually.

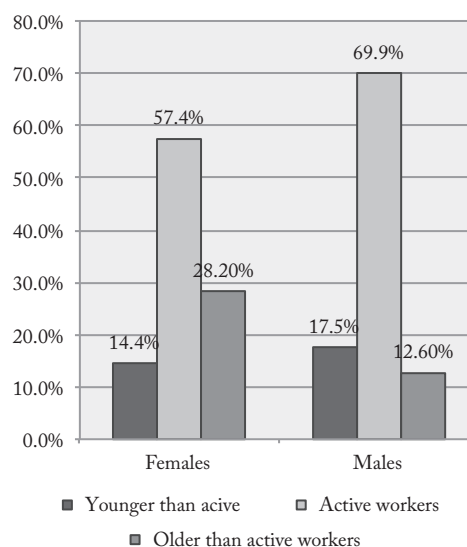


Figure 1. Working-age population in the RF matched by age and sex, in %

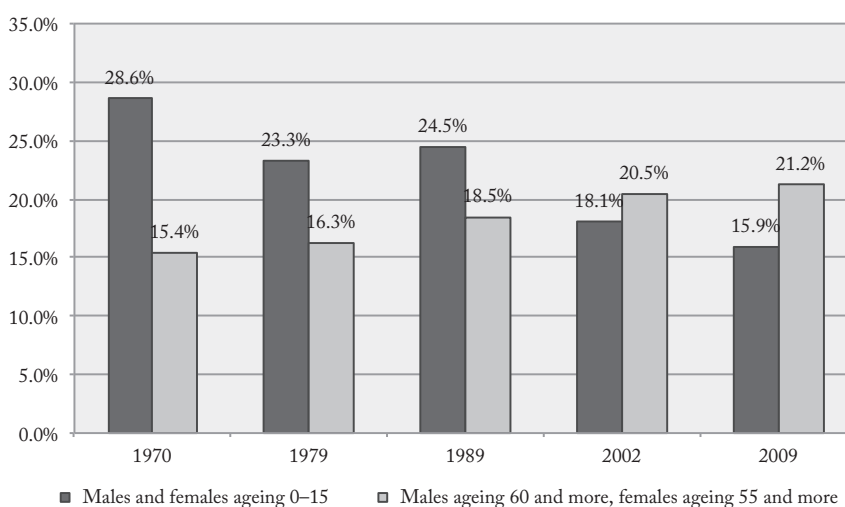
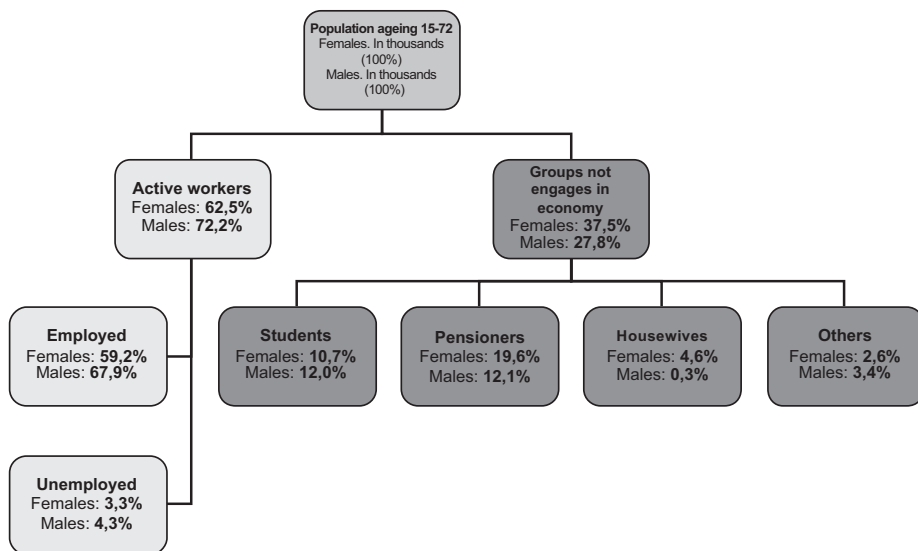
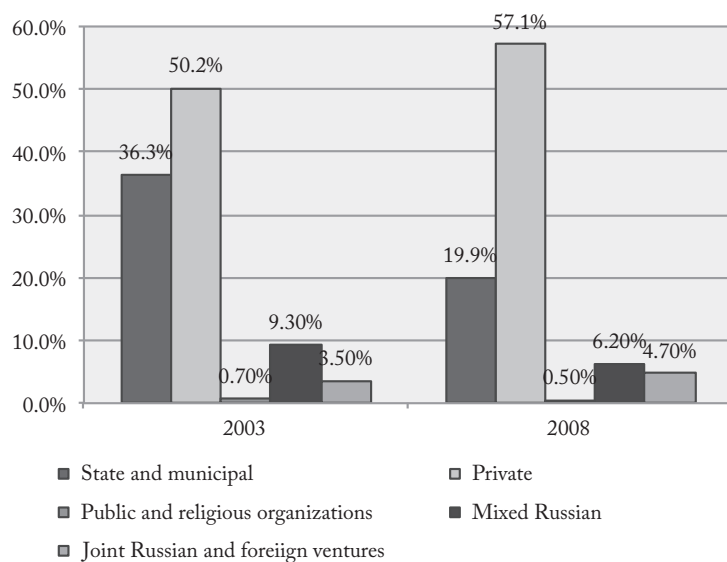


Figure 2. Age-related changes: share of people younger and older than active working age compared to general population, in %



**Figure 3.** Distribution of the population aged 15–72 by economic activities in 2008 and its share compared to the general population of respective sex, in %



**Figure 4.** Structure of the mean annual number of population employed in economy with regard to patterns of ownership

The reduction of active workforce and its share in the general population is going to take place on the background of growth both of number and proportion of pensioners.

In 2009, 38 million was the number of retired population in the country including around 30 million old age pensioners.

In accordance with the official data, employment of pensioners has been growing since 2002. At present, working pensioners make up about one fourth of the total number of pensioners. It is of great importance nowadays to involve and effectively employ aging workers in the economy of Russia.

The growth of the employment of retired pensioners will contribute to both reduction of workforce shortage and greater resort of work experience accumulated during working years. The main obstacle for the involvement of pensioners in active work is the state of their health.

The results of sociological research among pensioners show that the number of working pensioners who assess their health as “satisfactory” is three times larger than the number of those pensioners who do not work and thus assess their health as “unsatisfactory”.

In 2009, life expectancy in the Russian Federation was 62.8 years for men, which is 15–17 years less than globally in the developed countries, while for women it was 74.7 years, which is 7–11 years less than globally in the developed countries.

Great success in the reduction of mortality rates among the adult population was achieved in the majority of the world’s countries in the second half of the 20<sup>th</sup> century and at the beginning of the 21<sup>st</sup> century. Russia stands aside from these achievements. While in the 1960s and at the begin-

ning of the 1970s Russian life expectancy was almost the same as in the greater part of the world, at present it shows multiple increase discrepancy, especially in males. (Figure 5)

Impact analysis of mortality rates for 1987–2008 testifies to the fact that infantile and child mortality shows a 1.5–2-fold reduction. In senior age groups, mortality rates were either stable or insufficiently (by 10–20%) increased whereas at active working ages 16–59 they showed a 1.5–2.5-fold increase.

**Table 1.** Rates of industrial injuries are presently decreasing at a very quick pace in Russia

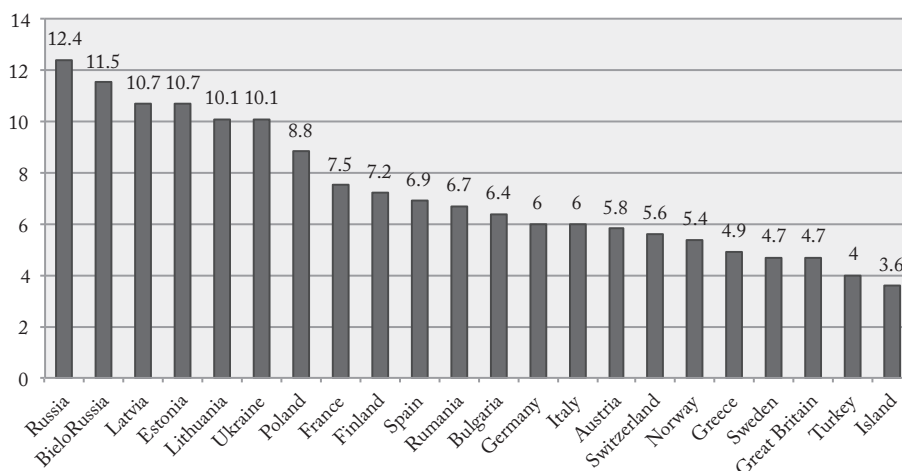
Industrial Injuries	2008	2009	Change, in %
Index of occupational injuries per 1000 workers	2.5	2.1	–16.0
Lethality index of occupational injuries per 1000 workers	0.109	0.09	–17.4

Industrial traumatism decreased from 3.4 to 2.1 during 2004–2009 (per 1000 workers), which made up 38%, and lethal outcomes of occupational injuries decreased from 0.129 to 0.090, or by 30.2%, respectively.

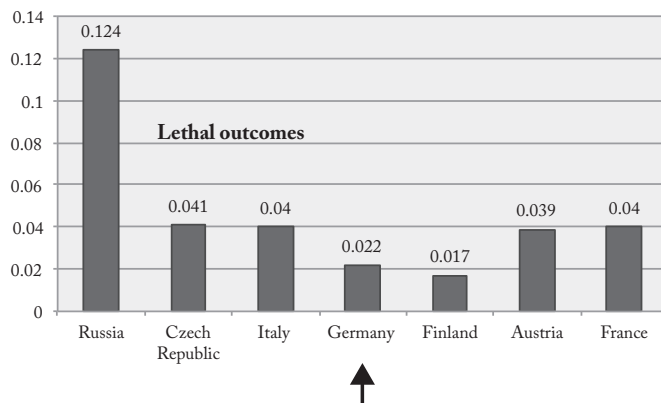
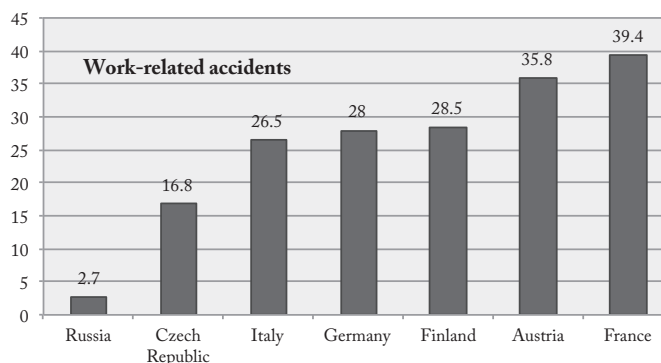
**In Europe, the share of one lethal injury is 500 to 2000 cases of injuries.**

**At present, this ratio is 1 to 22–23 in Russia, though in the 1970s and the 1980s it was 50 to 60 cases of occupational injuries per one lethal injury.** (Figure 6)

At present, mean indices of the number of cases and disability days compared with the beginning of the 1990s have reduced by one third. They correspond to the analogous data in the EU countries. (Figure 7)

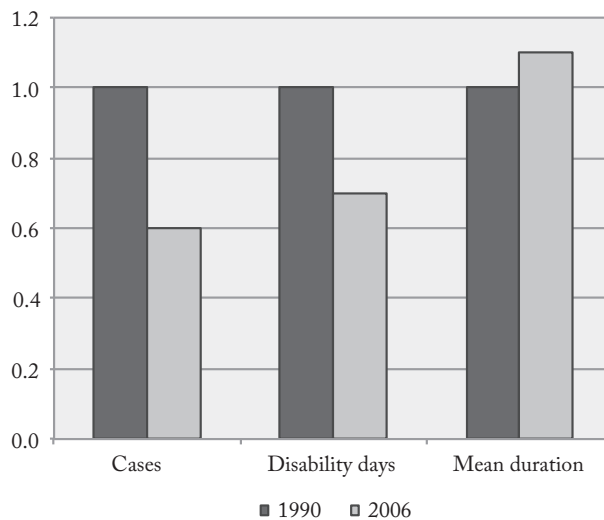


**Figure 5.** Difference of life expectancy in men and women, in years in 2008

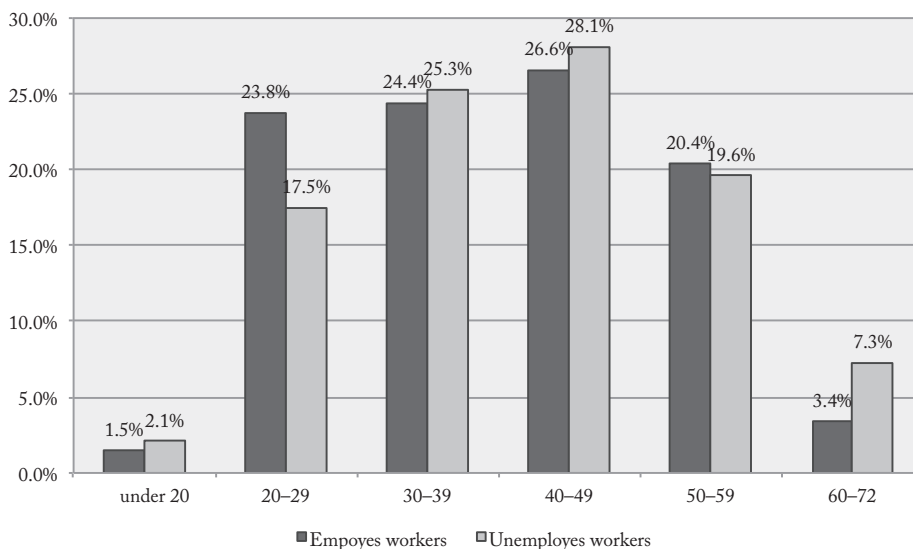


One lethal injury versus the number of non-lethal injuries

**Figure 6.** Level of occupational traumas in Russia compared with developed countries of the world in 2008 (per 1000 workers)



**Figure 7.** *Morbidity with temporary disability*



**Figure 8.** *Structure of employed population matched by age and type of employment in 2008, in %*

Along with this, the mean duration of one disability case increased by 16%. Increase of the mean duration of one case indicates a late visit to the doctor as well as the fact that the worker's health condition needs more time to be restored.

The reduction of registered morbidity rates of working population on the background of extremely high levels of disability and mortality of working ages speaks of:

- Social ill-being in the society, continuing gap in the real income of population, growth of poor layers for whom medical aid is less accessible;
- High prevalence rates of alcoholism and unhealthy life style, low standard of culture, including hygiene at home and in working surroundings;
- Low appraisal of health and life in population striving for maintaining higher life standards at the expense of their own health

**Table 2.** *Share of workers engaged in hazardous and dangerous working conditions, in %*

Indicators	2008	2009	Shift, %
Mining operations	39.1	40.3	+3.1
Manufacturing activity	26.8	28.2	+5.2
Distribution of energy, gas and water	30.6	31.0	+1.3
Construction	14.6	28.2	+93.2
Transport	31.4	33.1	+5.4
Communications	2.9	3.7	+27.6
Workers with heavy physical loads	9.0	9.8	+8.9
Including females	3.5	3.8	+8.6



**Table 3.** Actual number of working hours per week averaged per one worker (including the time for additional place of employment)

Indices	Total number of workers	Workers having one place of employment	Workers having two or more places of employment
2007	39.1	38.6	51.8
2008	39.3	38.9	52.5

- In accordance with the official data, more than 2 million 600 thousand workers had two or more places of employment.
- Excessive employment is characteristic of workers engaged in the non-formal industrial sector at small and medium-scale enterprises. (Figure 8)

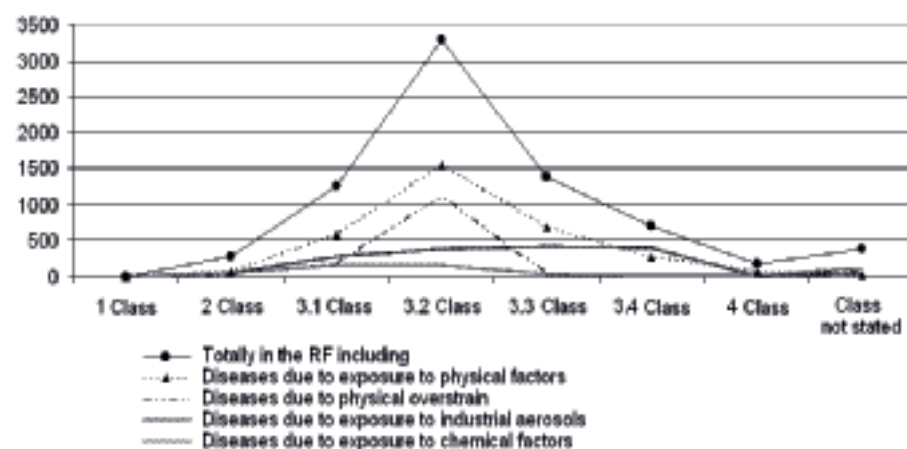
In accordance with the Rosstat data, rates of occupational morbidity in Russia grew by 17.8% in 2009, which was equal to 1.79 per 10,000 workers (1.52 in 2008, respectively). (Table 4; Figure 9)

The State Concept of the Demographic Policy for the Period until 2020, among other tasks to be fulfilled by public health, has a special task which includes reduction of mortality rates and injuries from occupational accidents and occupational diseases by:

- shift in the field of safety at work to the system of management and control of occupational risks including informing workers of relevant risks, development of system for revealing such risks, evaluating and controlling them;
- economic motivation for the improvement of working conditions by employers.

**Table 4.** Share of workers to be compensated for their work in dangerous and hazardous conditions (in accordance with types of economic activity) in 2008, in %

Indicators	Types of economic activity					
	Mining operations	Manu- facturing industries	Production and consumption of energy, gas and water	Construction	Transport	Communication
Workers engaged in hazardous and dangerous working conditions	68.4	41.9	43.3	33.7	44.6	6.7
Among them workers had the right to:						
Additional breaks	60.2	29.8	32.7	22.9	33.6	4.1
Reduced working hours	8.8	3.8	2.0	1.8	1.6	2.0
Free medical treatment and nutrition	1.9	3.0	2.0	0.8	0.1	0.0
Free delivery of milk and other food products	3.0	27.7	24.5	14.3	11.7	2.0
Increased remuneration for work	28.1	27.5	29.0	9.6	19.7	3.4
The right to early retirement and old age pension reward, List 1 and List 2	42.1	17.9	12.2	13.6	5.4	1.7



**Figure 9.** Distribution of occupational diseases and poisonings by number of cases in 2009

**Table 5.** *Number of migrant workers in Russia*

	In %						
	2000	2003	2004	2005	2006	2007	2008
<b>Totally</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Abroad workers	50.1	52.2	51.8	51.1	47.0	32.8	26.6
Vietnam	6.2	9.3	9.1	7.9	6.8	4.6	3.9
China	12.3	19.3	20.4	22.9	20.8	13.3	11.6
Northern Korea	4.1	3.5	3.2	2.9	2.7	1.9	1.4
USA	0.9	0.5	0.4	0.4	0.4	0.3	0.2
Turkey	8.4	10.0	10.4	10.5	10.0	7.6	5.4
NIS workers:	49.9	47.8	48.2	48.9	53.0	67.1	73.4
Azerbaijan	1.5	1.6	2.1	2.5	2.8	3.4	3.1
Armenia	2.6	2.7	3.7	3.7	3.9	4.3	4.1
Georgia	2.4	0.8	0.8	0.6	0.5	0.3	0.2
Kazakhstan	1.4	1.0	0.9	0.6	0.5	0.4	0.4
Kyrgyzstan	0.4	1.3	1.7	2.3	3.3	6.4	7.6
Republic of Moldova	5.6	5.7	4.9	4.4	5.0	5.5	5.0
Tajikistan	2.9	3.6	5.1	7.5	9.7	14.6	16.1
Turkmenistan	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Uzbekistan	2.9	3.9	5.2	7.0	10.4	20.1	26.5
Ukraine	30.1	27.1	23.6	20.2	16.9	12.2	10.1

One of the most important factors which influence this situation is the market of workforce where migrant workers, above all those arriving from the NIS, change alignment of force.

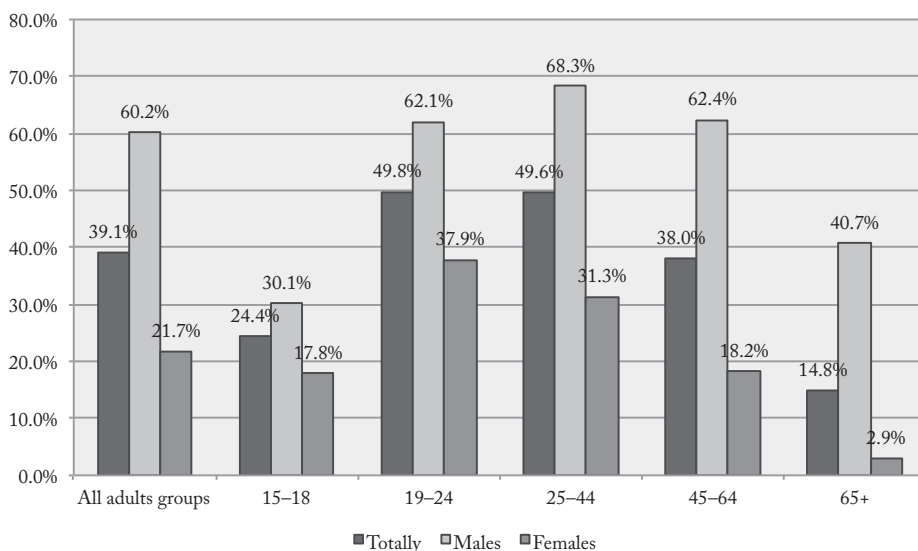
In accordance with the assessment by the RAS (Russian Academy of Science) Research Economy Prognosis Institute, the number of migrants at the beginning of 2009 was 6–7 mln people, or more than 10% of the full list of Russian workers in the RF. The number of illegal migrants makes up approximately 4–5 mln people and about 30% among them have neither registration, nor work ticket.

More than half of legal migrants with work tickets are employed in the shadow economy sector, their employers do not send relevant notifications to the Migration Service and Rostrud (Table 5).

The Russian Federation National Safety Strategy Until 2020 sets the following aims for national safety in the field of public health:

- Increase of life expectancy, reduction of disability and mortality rates;
- Development of preventive measures and timely qualified primary medical aid to workers;
- Prevention of socially dangerous diseases;
- Quality and accessibility of medical service.

In October 2010, ILO Convention No. 187 on Occupational Safety and Health was ratified by federal authorities. The aim of the convention is to prevent industrial accidents, occupational diseases and deaths of workers in industry by means of working out the relevant national policies, systems and programs on the subject. This fully agrees to the WHO Global Plan of Actions on Workers' Health for 2008–2017, which has a recommendation directed to the WHO member states to encourage developing national health programs and national systems of occupational health.



**Figure 10.** *Prevalence of tobacco smoking among adults (aged 15 years or older) matched by sex and age in the Russian Federation in 2009*

The Russian Program entitled Health in Industry is underway in the Ministry of Health and Social Development. The program is based on the WHO Global Plan of Actions on Workers' Health for 2008–2017. The aims of it are:

- Development of medical and preventive services for the working population of Russia;
- Timely identification of occupational diseases;
- Reduction of health risks due to unfavorable occupational factors;
- Bringing up of ideas of a healthy life style to the working population.

The experience of many countries shows that a new social key-point for preventing and quitting bad habits can be the idea of general health promotion in the society along with the work at individual development of a healthy life style. In 2009, a program to form a healthy life style until 2012 was introduced in Russia. The Ministry of Health and Social Development initiated the program and called it 'Healthy Russia' attracting mass media and other social instruments to implement it. Health control and prevention centers are being developed in the country.

Medical specialists of the local outpatient service fulfill the functions of hygienic education. The system of medical prevention, forgotten in the recent years, is now being restored to life.

In accordance with the WHO data, the leading mortality and morbidity factors in the Russian Federation are as follows:

- high arterial blood pressure;
- high level of cholesterol;
- tobacco smoking and alcohol abuse.

The following correlation has been detected between risk factors and mortality rates:

- 17.1% for tobacco smoking;
- 12.9% for unbalanced nutrition;
- 12.5% for extra weight;
- 11.9% for alcohol intake.

**Table 6.** Number of diseases due to alcoholism and alcoholic psychosis, drug addiction and drug abuse in 2008 (newly diagnosed diseases)

Indicators	Totally	Ages, years				
		0–14	15–17	18–19	20–39	40–59
Totally						
Alcoholism and alcoholic psychosis	173,430	39	660	1705	77,886	84,569
Drug addiction	26,516	28	649	1451	22,628	1754
Drug abuse	1161	288	502	135	214	19
Females						
Alcoholism and alcoholic psychosis	38,278	6	177	286	17,577	18,503
Drug addiction	5238	4	129	284	4629	191
Drug abuse	142	25	60	17	30	7
Males						
Alcoholism and alcoholic psychosis	135,152	33	483	1419	60,309	66,066
Drug addiction	21,278	24	520	1167	17,999	1563
Drug abuse	1019	263	442	118	184	12

About 50% of Russian population are tobacco smokers. The rates of tobacco smoking growth are the highest compared with the rest of the world: the number of smoked cigarettes during the recent three years has annually increased by 2% to 5%. The number of tobacco smokers, including women and teenagers, annually increases by 1.5% to 2% (Figure 10).

In accordance with the WHO researches, the prevalence of tobacco smoking among 13–15-year-old teenagers is 33.4% (40.8% among boys and 29.8% among girls, respectively).

According to expert assessment, Russia occupies the fourth place in the world by the prevalence of tobacco smoking among teenagers.

Russia joined the WHO Convention against tobacco smoking where it was for the first time proclaimed as global challenge and threat. In accordance with this document, Russia has to introduce measures to restrict tobacco consumption.

Alcohol abuse shows high repeatability dynamics. In accordance with the data of Rosstat, the consumption of registered alcohol per person increased from 5.83 liters of absolute alcohol in 1990 to 10.1 liters in 2007, which otherwise makes up an increase of 1.8 times. In accordance with the data of experts, the real per capita consumption of alcohol is around 18 liters with regard to illegal turnover of alcohol-containing products in Russia.

According to the opinion of the WHO experts, if pure alcohol consumption per capita increases 8 liters a year, it is already dangerous for the health of population (Table 6).

Great harm to the health of population is inflicted by malnutrition.

Discrepancy between caloric content and power inputs, extra consumption of fats, insufficient intake of vitamins, minerals and biologically active food components have been found in the nutrition of Russians.



Health in Russia has not been a public or personal treasure so far. Russians are not inclined to think over their health as a personal capital, they are not accustomed to taking care of it.

The Ministry of Health and Social Development of the Russian Federation is presently working at a new national system of occupational risk management and control to prevent occupational injuries and maintain the health of workers at Russian enterprises.

Occupational risk control in the sphere of work protection allows for establishing of a direct link between working conditions at workplaces and health state of the employed personnel with the necessity to work out managerial decisions which increase the efficiency of safety at work and work protection measures.

The analysis of foreign law enforcement practices in the field of safety at work shows the efficiency of occupational risk management and control at workplaces in the EU countries. Thanks to it, the efficiency of preventive measures in safety at work is increased, working conditions are improved and occupational injuries and morbidity are reduced.

In Russia, the system of occupational risk control and management has already been introduced by the "R 2.2.1766-03" Guid-

ance on the Assessment of Occupational Risks for Workers' Health. The guidance was approved by the Chief State Health Physician of Russia on June 24, 2003. Also two other legal documents were published in 2010, namely, Prognosis of Exposure to Harmful Factors of Working Conditions and Assessment of Occupational Risks for Workers' Health; Methods Applied to Reveal and Prevent Work-related Diseases Developed by the Researchers of the RAMS Institute of Occupational Health with Their Co-workers.

It is necessary to develop legislative acts for the introduction of methods aimed at the management and control of occupational risks and health assessment of the employed workers as well as of the funds necessary for their treatment and occupational rehabilitation.

It is proposed to be fulfilled by introducing amendments to the Labor Code of the Russian Federation by applying as the main notion in the field of safety at work such a term as "occupational risk" and establishing rights and responsibilities of employment parties related to occupational risk management and control as well as to procedures aimed at the prevention of occupational diseases and occupational rehabilitation of workers.

Methodological legislative acts on the prevention of occupational diseases and occu-

pational rehabilitation of workers are to be developed based on a three-staged system of social protection and medical aid to workers if dangerous and/or harmful industrial factors are present at a particular enterprise.

First stage is to determine the level of occupational risk due to the working conditions at workplaces and the workers' health.

Second stage is to render medical aid including early diagnosis based on medical signs revealed by regular medical examinations for groups with increased risk factors.

Third stage is to establish compensatory mechanisms and other social benefits for those who have suffered due to accidents or occupational diseases.

It is advisable to introduce a system of social protection into the National Plan of Action to maintain workers' health in Russia, which will help to solve demographic problems, give an increase to the number and quality of workforce of the state, work efficiency, economy and GDP.

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## Austrian Health Care System Faces Considerable Challenges

Hospital reform, migration of doctors, working conditions in hospitals, increasing medical underservice in outlying areas, the risk of quality losses due to budget cuts – these are the considerable challenges the

Austrian health care system has to face in 2011. In addition, the reform of the funding system, the development of medical documentation, and of electronic data exchange is imminent. All players will be required to

make considerable efforts in order to solve these problems. However, enduring solutions can only be achieved in cooperation with the medical profession, represented by the Austrian Medical Chamber. Implementing reforms without referring to the expertise of the medical profession would be comparable to a blind speaking of colour.

No doubt, the most urgent concern is the hospital reform. First of all, the legal provi-



# World Medical Journal



Walter Dörner

sions for hospitals have to be harmonized. At present, the country has one federal and nine provincial regulatory systems. All the more it is positive that the Minister of Health has responded to this long-standing claim of harmonization made by the Austrian Medical Chamber, which shall be implemented in the course of the hospital reform.

In addition, the hospital reform will tackle the exasperating funding problem, as a considerable share of costs is attributable to hospitals. This is explained mainly by high frequencies in hospital outpatient departments, which in turn is due to medical underservice of self-employed doctors in the early morning, late evening or on weekends. The solution is obvious: group practices are able to disburden outpatient departments in taking over many tasks conditional that these services are remunerated adequately. At the same time, the Austrian Medical Chamber advocates two pots of funding in order to increase transparency – this would allow hospitals to be funded by taxes, and extramural services including hospital outpatient departments to be funded by health insurance funds.

The reform should not take place exclusively on political grounds, but should be

expert-based and take into consideration both medical and social needs. In contrast to this, the Austrian social insurances have presented a “master plan” for the reforming of the entire health care system, which aims to concentrate the entire power in the hands of the social insurances. In this plan, medical expertise and the needs of patients are sacrificed ruthlessly to economic targets. It appears that the social insurances, which at present are influenced significantly by the economy, see the health care system as a production process under economic laws. The medical profession has protested vehemently against this trend outlining that the development of new reforms in the health care area should fall within the political competence of the Minister of Health, rather than being developed by representatives of the economy.

The reforms at issue and scheduled for 2011 also concern the training of young doctors. After graduation from Medical University, it is common to undergo a three year hospital training in order to become a general medical practitioner; at this level, doctors enter specialist training. The Austrian Medical Chamber advocates that medical university education shall be more practice-oriented to allow students to directly enter specialist training at the end of the medical curriculum.

At the same time it favours the intensification of the training in general medical practice in depth and in length, including one compulsory year of training in a teaching practice. Such a system would advance intensive vocational training and prevent doctors in training from being reduced to sustaining and upholding the system. A restructuring of the present system shall also avoid that young doctors leave the country, undergo training in another European country, and never come back.

Several improvements like the radical improvement of training conditions are imperative in order to keep young doctors

from migrating abroad. Also, the working conditions in hospitals and practices have to be rendered more attractive. Despite of several successes, hospital doctors in Austria work too much and too long. Therefore, the working conditions have to be rendered more quality-, patient- and doctor-centred. This includes the creation of new working time models which allow for compatibility of professional activity and family life. Running a practice means facing excessive bureaucratic overload while offering not a lot of perspectives from an economical point of view. These facts will contribute to creating a serious shortage of doctors in the future, as the readiness to work under these conditions will decline.

In the near future one major issue will also be the trend towards electrification. E-medication and the introduction of an electronic health record are imminent, however, not always well-received. Concerns regarding data protection and data security are increasing just as financing and cost considerations. However, it shall be noted that international companies are highly interested in the introduction of such systems, and economic considerations are given priority. Creating the possibility for patients to opt out both generally and partially from an electronic health record system in order to prevent for instance mental illnesses from being recorded, finally reduces the idea of doctors having a consistent overview of their patients' medical situation to the point of absurdity.

*Dr. Walter Dörner,  
President,  
Austrian Medical Chamber*

## Realization of the Perspective Initiatives for Improving the Quality of Medical Services in Uzbekistan



*Zokhid Abdurakhimov*

Improvement of the quality of medical services is very important worldwide, including Uzbekistan. The government and Ministry of Health take various measures directed at the improvement of the quality of medical services. It is not a secret that the improvement of the quality of medical aid is a difficult problem which demands carrying out of complex measures, such as improvement of material conditions, increase of medical personnel's knowledge, improvement of working conditions and introduction of the modern methods of payment and motivation of medical workers' work.

The European forum of medical associations and the World Health Organization have made an address on December 29th, 1993 with a statement on the development of the quality of medical aid that will allow each patient to receive quality help. With that end in view, national medical associations should develop perspective indicators

for the estimation of quality, independent external estimation of the quality of medical services (accreditation), and increase the knowledge of physicians by means of seminars and training.

The Medical Association of Uzbekistan, being one of the large non-governmental non-commercial organizations, has authority in wide circles of the medical society and actively works at introducing the modern methods of medical aid regulation, directed at the improvement of the quality of the medical aid rendered by medical institutions to the population of the Republic of Uzbekistan.

**The first initiative:** increase of physicians' knowledge by introducing remote training in the post-degree period on the basis of international experience.

In the USA and some European countries, physicians, for employment in clinical practice, should obtain a license (primary and repeated). An indispensable licensing condition is the improvement passage. For example, in the USA, each physician within three years should pass the 150-hour curriculum of improvement. A widespread mode of physicians' study is using curriculums published in medical journals, for example, in the Journal of the American Academy of Dermatology. In Uzbekistan, each physician within five years should pass improvement in the course of 288 hours. Improvement includes internal and correspondence training. There is the Tashkent Institute of Postgraduate Education of Physicians to which the functions of carrying out internal post-degree training are assigned. The Medical Association of Uzbekistan, together with the leading experts

of the Tashkent Institute of Postgraduate Education of Physicians, prepares curriculums (seven have already been published in the Bulletin of the Medical Association of Uzbekistan). Having answered tests, physicians at an affirmative reply and a set of certain percent receive the certificate by way of remote training with instruction of 18 hours. Since 2010, more than 200 physicians have received certificates by way of remote training.

**The second initiative:** introduction of the accreditation of medical institutions. We have adjusted relations with one of the most influential organizations dealing with the introduction of medical institution accreditation, namely the Joint Commission International (JCI), which is part of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) of the USA. JCI has been working on the accreditation of medical institutions in more than 70 countries. It renders consulting services in more than 90 countries of the world and cooperates with the World Health Organization, ministries of health of various countries, and also with medical associations. The results of accreditation are published and are accessible on the Internet to all population. All rules and the standards developed by the accreditation commission are available on a site of the incorporated commission and are accessible to all medical clinics. According to rules, medical clinics should pass accreditation each three years. In Uzbekistan, the grant from the German Agency for International Cooperation (GIZ) for the «Development of the system of public health services in Central Asia with pilot actions in Kyrgyzstan, Tajikistan and Uzbekistan» is realized. At this point, negotiations for signing the Memorandum of Understanding between JCI and the Medical Association of Uzbekistan are being conducted.

**The third initiative:** diagnosis-related group (DRG) system introduction for the perfection of the mechanism for financing

medical aid in hospitals. Used methods of financing through the global budget and by a design procedure on duration of stay on a cot, and also by quantity of rendered services do not promote an intensification of medical workers' work, improvement of the quality of treatment and reduction of the hospitalization terms for patients. Design procedure use on duration of stay on a cot, and also by quantity of rendered services in Uzbekistan has revealed that even in one clinic the cost of treatment of the patient with the same diagnosis differs  $\geq 1.5$ -fold. At the same time, the cost of the medical services with the same name, for example, an electrocardiography, in medical institutions located in one territory (city of Tashkent) differs  $\geq 2$ -fold. It all has demanded

studying of this problem, and also of the international experience in this area. We study the methods of payment for medical services worldwide.

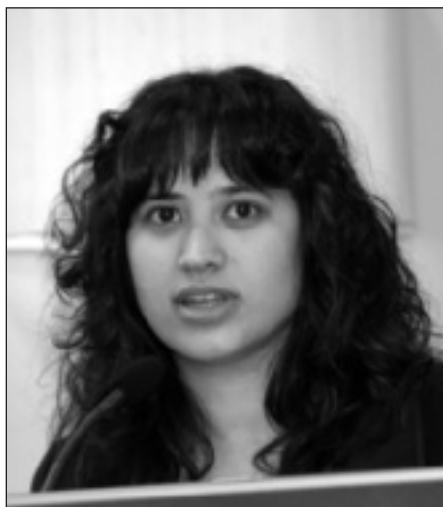
The Association suggests introduction of the system of patient classification developed by R. Fetter (USA), the so-called diagnosis-related group system. This system has been introduced in the USA, Canada, Japan, Great Britain, and also in more than 20 other European countries (Germany, France, etc.) and is an important mechanism for estimating and stimulating the activity of medical institutions and a uniform method for calculating the treatment cost for each patient who has left a hospital.

Introduction of this method will allow of passing from the physician payment on a uniform scale to the contract system of payment allowing of stimulating the improvement of the quality and intensity of physicians' work. We understand that it is a difficult and long process.

We know that the European countries have gained a wide experience in the realization of these initiatives and the Medical Associations of Uzbekistan is searching for partners that could impart experience and would help to put these working outs into practice.

*Zokhid Abdurakhimov,  
The Chief Executive,  
Medical Association of Uzbekistan*

## Medical Student Impact on the Future of European Healthcare



*Elif Keleş*

EMSA is a students' initiative under Belgian law, volunteer-based organisation advocating and representing the voice of the medical students of geographical Europe. It was founded in 1991 to provide a common network for these students, to share projects, culture and experience, and to repre-

sent their opinion in medical organisations such as the EU body CPME – the Standing Committee of European Doctors.

EMSA aims to form a network among European medical students, facilitate European integration, develop a sense of European identity, and promote training, activities and projects related to health in Europe for the benefit of medical students and society.

Through a wide variety of projects, we aim to raise the quality of medical education and to empower students in the field of medical science. Furthermore, we focus on medical ethics and address the need to raise public awareness of the social and cultural issues that occur in the process of improving the European healthcare system.

EMSA seeks to improve the health and quality of care of the citizens of Europe by acting as a conduit for increased interaction and sharing of knowledge among European medical students in the areas of medical education ethics and science.

Finally, we are a platform of European integration and foster student exchange, free flow of information, and the transfer of best practices. While facing the oncoming challenges of the 21<sup>st</sup> century, we recognise the importance of standing together and addressing these challenges with a clear vision, boldness and creative way of finding solutions. After all, activation, innovation, and determination of our mind are what truly further positive change and constant improvement.

We collaborate with European medical organisations. This connection allows us to be always updated on the ongoing topics and the new topics to be followed. We have an access to a platform of information, contacts, and existing organisations.

We have many initiatives and projects. One of EMSA's initiatives is the European Medical Students' Council. The EMS Council gives the medical students in Europe a voice that is heard by the European healthcare stakeholders. The EMS Council works

towards the common goals of medical students throughout the European Union and geographical Europe. We have produced several valuable policy papers in the past years, some of which have been published in international papers and accepted by our partner organisations.

EMSA is interested in policy making to support students in Europe to involve in global health and health policy. We represent the medical students and the voices of young people in Europe that stay unheard regarding health policy and healthcare.

As a result of our European collaboration with medical students, we are aware that medical students themselves want to be more involved in health policy as future physicians. EMSA and the EMS Council endeavour to make policy by informing, raising awareness, and, most importantly, encouraging students to engage in the future of healthcare in Europe.

The latest paper, which was adopted by the 7<sup>th</sup> EMS Council, is the Vienna Resolution, a policy statement about the future of European healthcare. In this paper, we deal with

the development of high common healthcare standards in Europe, the shortage of healthcare professionals, especially in rural areas, and the intra-European mobility of healthcare professionals.

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## Vienna Resolution of the Future of European Healthcare

*7<sup>th</sup> European Medical Students' Council in Vienna, Austria, 22<sup>nd</sup> to 25<sup>th</sup> April 2010*

### Preamble

The European Medical Students' Council 2010 in Vienna:

- Intending to contribute to a better European Healthcare,
- Wishing to participate as a stakeholder in the discussion about the future of European health and healthcare,
- Strongly supporting the common values as defined by the European Ministers of Health [1] (universality, access to good quality care, equity and solidarity) and adding integrity, transparency and confidentiality,
- Emphasising the importance of healthcare workers within the European society,
- Acknowledging current public priority to increase international collaboration and sharing of knowledge on improvement of healthcare [2]
- Observing the increasing complexity of healthcare and the changing roles of healthcare professionals,
- Taking into account the changing European demographics, the increasingly mobile workforce, the changing demands of society, technological development and the increasing costs of healthcare [3],
- Taking into account workforce migration which affects the accessibility of healthcare in rural areas,
- Building upon current European statements with regards to healthcare as well as related policy papers [4] and scientific literature,
- Appreciating the efforts of all stakeholders in this field, from policy makers, through healthcare workers to patients,

- Expressing our belief that leadership skills are essential when dealing with patients as well as other stakeholders,
- Affirming the importance of the continuous development of Lifelong Learning strategies [5],
- Convinced that organizations providing healthcare must evolve into learning organizations<sup>1</sup> in order to increase the quality of care,
- Keeping in mind that all our endeavours should be patient-centred, while taking into account their impact on society<sup>2</sup>,
- Contributing to a vision of the future of European healthcare, the European Medical Students' Council,
- Calls for attention to the topics of access to healthcare and mobility of students and healthcare workers.

### Standards of healthcare

Recommends development of high standards of healthcare with special attention to the following:

- Increasing the importance of preventive medicine,

1 Learning Organization: an organization which has developed an infrastructure to utilize every educational opportunity for improvement of patient care, as well as for the benefit of all individuals working within the organization, to continuously adapt to and respond to a changing environment.

2 Impact on society: the public health and financial meanings of medical interventions.



- Ensuring that sufficient time is devoted to meet all the patients' health<sup>3</sup> needs,
- Implementing measures to improve inter- and multidisciplinary cooperation,
- Encouraging development of leadership skills of all healthcare professionals involved in shaping the future of healthcare,
- Promoting conflict resolution and teamwork skills to become an integral part of the medical profession,
- Demanding communication trainings in the medical curriculum with the aim to improve the doctor-patient relationship as well as healthcare team dynamics.

## Annotations

Permanent access to high quality healthcare has become an integral part of European societies. Thanks to advances in modern medicine, most illnesses can be cured or treated, or at least life is extended significantly; we feel however, that due to the technological nature of these improvements, certain basic aspects of the care that is provided should receive more attention than is given to it now.

Preventive medicine should take a more prominent role in healthcare, both in education and in medical practice. We would like to remind policy makers that prevention is much more cost-efficient than treating an illness, and therefore significant attention should be given to it. At an early stage medical professionals should encounter healthcare in practice, both in a clinical and a political and organizational manner by ways of introducing these topics in educational programmes.

We advise to implement communication trainings in the medical curriculum. Work overload, lack of personnel and limited resources lead to decreasing patient-doctor-interaction. This leads to decreasing quality of healthcare as doctors lack the time to recognize the patients' needs and initiate adequate treatment. Training in adequate communication skills of medical professionals should facilitate higher quality of patient-doctor-interaction.

Meeting all the patients' needs includes tackling all their somatic, psychological and social problems without neglecting any of these. Doctors tend to regard their patients problem only from the doctors' perspective. To ensure a high quality treatment, multidisciplinary teams are the preferred working structure to view and judge all pos-

sible views of a case. Teamwork and leadership skills are therefore essential for every doctor to ensure.

The best possible outcome for the patient. Integrating trainings in communication and conflict solving into the curriculum as well as the life long learning process enables future doctors to work as efficiently as possible in this integral part of the medical profession.

## Access to healthcare

Expresses its concern about the shortage of healthcare professionals, especially in rural areas [6].

Calls for structural support to healthcare professionals in this context.

Proposes a common European fund to implement the following structural and financial support measures:

- Facilities and adapted rewards<sup>4</sup> for healthcare workers in underserved areas,
- Systems supporting access to academic networks and programmes for doctors,
- Flexible working conditions in underserved areas<sup>5</sup>,
- Distance-learning opportunities,
- Implementation of e-health, telemedicine and e-consultations,

Affirms the Heidelberg Resolution on Information to patients [7],

Calls for appropriate use of new technologies, emphasizing that significant attention must be paid to privacy concerns, distribution and regulations,

Recommends the establishment of a freely accessible online database listing all health care providers in order to provide information about available resources, treatment and diagnostics as well as waiting lists,

Strongly suggests that adequate measures are taken to ensure that people in need of care may remain living in their own homes with sufficient support, whenever feasible in terms of patient safety and available resources,

Urges the following actions with regard to demographic developments:

- Integration of geriatrics and palliative care [8] into the medical curriculum,

<sup>3</sup> Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. [Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19.22 June, 1946, signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organisation, no. 2, p. 100) and enters into force on 7 April 1948.]

<sup>4</sup> Additional benefits such as housing or transportation.

<sup>5</sup> E.g. shortened working times, only for a limited amount of time, travelling between areas, having shared working times (e.g. two days in a popular, three days in an underserved area).

- Offering clerkship opportunities in geriatric and palliative care related fields<sup>6</sup>,
- Provide incentives to ensure medical coverage in retirement homes.

Draws attention to the specific needs of vulnerable minority groups by means of:

- Approaching all patients with equality regardless of their background [9] ensuring social inclusion,
- Effective communication with the patients regardless of their background [10],
- Providing required assistance, such as the removal of administrative obstacles to healthcare access,
- Guidelines securing access to healthcare for unregistered migrants and asylums,

## Annotations

Many countries all over the world and also in Europe have actual and projected shortages of physicians. Smaller EU countries are especially vulnerable to sudden changes in migratory patterns. Especially in rural areas measures need to be taken to ensure continuous availability of necessary health care resources. Further loss of physicians mainly through migration is very likely to result in reduced availability of health services [11].

Thus, a transnational approach is needed to the emerging problems. Following examples from the farming industry, we propose a common European fund to lower imbalanced access to healthcare in rural and city areas by giving incentives to health care professionals to serve in rural areas.

Even though the personal contact to a health care professional is an integral part of treating a patient we see the potential in the use of new technologies in the means of e-health, telemedicine or e-consultations to maintain the constant availability of health care in underserved areas. Privacy concerns as well as distribution and regulations need to be taken into consideration, before such a system can be implemented.

Using new technologies communication skills will be an even more important part of patient-doctor interaction and we continuously support the results of the 4<sup>th</sup> EMS council concerning Information to patients.

Citizens are living longer and in better health. Life expectancy has increased consistently since the 1950s by around 2.5 years per de-

<sup>6</sup> e.g. social medicine, geriatrics or palliative care.

cade and is expected to continue to increase. Nevertheless, as people live longer, it is expected that there will be increasing numbers of older people with a severe disability and in need of long-term care. A growing number of geriatric patients will be in need of treatment in the future and a prolonged lifespan will lead to rising numbers of patients receiving palliative care. We therefore demand a better training in the aforementioned fields and the necessary support to enable people to stay as long as possible in their familiar environment at home.

For migrants, barriers to accessing healthcare represent a complex picture. It has long been recognised that newly arriving migrants may face special health risks and frequently do not receive the care they need. The barriers to accessing healthcare include: lack of knowledge about available services; language differences, varying cultural attitudes to health and healthcare and administrative and bureaucratic factors.

## Mobility

Demands a free choice of and equal conditions for acceptance into medical programs and postgraduate medical education throughout Europe,

Strongly opposes any form of discrimination regarding medical education<sup>7</sup>,

Aims for the implementation of the European Core Curriculum [12],

Calls for high European-wide standards in regard to basic and postgraduate medical education as well as continuous professional development,

Reaffirms the statements on the Bologna Process created by international medical student organisations [13],

Demands all countries of Europe to provide sufficient high quality medical school placements to meet their country's need for doctors [14],

Demands the freedom of movement for doctors, provided the necessary language proficiency<sup>8</sup>,

<sup>7</sup> Referring for example to different tuition fees or selection criteria based on country of origin, ethnicity, religion, gender, sexual orientation or social background.

<sup>8</sup> Proficiency in this context referring to language abilities sufficient to take a proper clinical history and communicate the diagnosis and treatment within the framework of the appropriate socio-cultural context.

Stresses the importance of comparable high standards of working and living conditions as well as equal opportunities for academic and professional development across Europe.

## Annotations

The freedom of movement for workers is one of the major principles of the European Community. Applying this principle to students and healthcare professionals all throughout Europe is an integral part of our vision for the future of European healthcare. We acknowledge that treating every European applicant equally might be challenging especially for small countries facing an overwhelming number of foreign candidates outnumbering local high school graduates. We envision though that in the near future the notion of being European will be more important than the national background and therefore strongly oppose any form of discrimination based on the country of origin.

Migration often moves in certain directions, partly due to some countries not educating enough doctors to meet their own needs but instead attracting medical school graduates from poorer countries. To prevent shortages in underserved areas we therefore ask all countries to provide enough medical school places to meet their own country's needs. Areas facing a shortage of doctors despite the measures taken may benefit from the European fund mentioned above to ensure medical coverage.

To ensure that the same high standards are met by all medical school graduates, common goals like the European Core Curriculum or guidelines such as the WFME Global Standard for Quality Improvement in Medical Education need to be implemented throughout Europe.

Making health policy is very essential itself and much more effort should be put by us, the future healthcare professionals. Therefore,

we will be able to encourage ourselves with enthusiasm, to get more progress as a European Policy making platform for medical students and to be heard by European Stakeholders.

Let us join our forces in 2012 to reach high common standards and qualified healthcare in the whole Europe to meet the needs of European Citizens.

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# WMA General Assembly – Montevideo 2011

## 189<sup>th</sup> & 190<sup>th</sup> WMA Council Sessions

12–15 October 2011, Hotel Radisson

The República Oriental del Uruguay is located in the Southern Cone of South America. Borders to the north and northeast, Brazil. To the west, Argentina and to the south and southeast the Rio de la Plata and the Atlantic Ocean. Uruguay has an area of 176.215 km<sup>2</sup> (square kilometres) and a population of 3.300.000 inhabitants with a high literacy level that reaches near 97% of the population. The climate is temperate and generally stable. Its main production is based on agriculture and livestock and is surrounded by large farm neighbours such as Brazil, Argentina, Paraguay and Chile. Uruguay is a cosmopolitan society as a result of several successive European migrations. It is an open society with a democratic government elected by free elections every five years and promotes tolerance of all religions or political ideologies and non-discrimination.

<i>Wednesday, 12 October 2011</i>	Preliminary Meeting of the Council Session Medical Ethics Committee Finance and Planning Committee Socio-Medical Affairs Committee Credentials Committee
<i>Thursday, 13 October 2011</i>	Scientific Session “ <b>Tobacco Cessation</b> ”
<i>Friday, 14 October 2011</i>	Council Plenary Session Assembly Ceremonial Session
<i>Saturday, 15 October 2011</i>	Council Plenary Session

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## Contents

Editorial . . . . .	121	Protecting Our Nation’s Health . . . . .	146
World Health Organization Urged to Act over Assaults on Health Personnel and Facialities . . . . .	122	Strengthening and Promotion of Working Population as the Base of Socioeconomic and Demographic Policies in the Russian Federation . . . . .	147
Health Professionals Unite in WHPA Taipei Call to Action . . . . .	123	Austrian Health Care System Faces Considerable Challenges . . . . .	154
Task Shifting in the Netherlands . . . . .	126	Realization of the Perspective Initiatives for Improving the Quality of Medical Services in Uzbekistan . . . . .	156
Japan Medical Association Teams’ (JMATs) First Operation: Responding to the Great Eastern Japan Earthquake . . . . .	131	Medical Student Impact on the Future of European Healthcare . . . . .	157
Fukushima Nuclear Power Plant Accidents Caused by Gigantic Earthquake and Tsunami–Healthcare Support for Radiation Exposure . . . . .	141	Vienna Resolution of the Future of European Healthcare . . . . .	158
The Japanese Earthquake and the Role of Medical Society . . . . .	145		