A run through the current health scenario with Dr. Enrique Ruelas Barajas
President of the National Academy of Medicine of Mexico

Health in Mexico 150 years since the founding of the National Academy of Medicine

In view of the emphasis in the Sectorial Health Programme on improving service quality, could you please comment on the Clinical Practice Guidelines and the role of the National Academy of Medicine in their design and adoption?

The Clinical Practice Guidelines are one of several elements that can contribute to improving healthcare quality and therefore their usefulness needs to be fairly measured. The greatest challenge that we face is not their creation nor obtaining the consensus necessary to make them valid, but that doctors use them in the process of caring for their patients. Due to this, rather than producing, storing and announcing the fact that they exist, it is essential to prioritise them in order to focus medical care in those that really produce a significant impact on the quality of care in the health system and to avoid spreading efforts too broadly. Furthermore, it is necessary to design the relevant strategies and incentives so that doctors use these and the evaluation mechanisms that will allow us to know if we are achieving the desired impact. Today a large number of Guidelines exist, all the same and without detracting from the valuable work that the Ministry of Health has carried out, I have the impression that the efforts have concentrated solely in the creation of these without having designed a strategy for their adoption and evaluation.

To what degree is the Academy influential in the training of new doctors? How could we achieve an increased number of doctors in the tertiary care fields, with the aim of responding to the tendency in the demand, for example oncologists and gerontologists?

In 2013, the Academy established a Programme for the Analysis and Proposals about Large National Health Problems with significant support from the National Council for Science and Technology (CONACYT). The aim of this programme is to fulfil the mandate the Academy has since 1912, to be a consultative body for the Federal Government in producing positioning papers that include a body of scientific evidence about the issue under

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The National Academy of Medicine of Mexico was founded in 1864, so in 2014 it celebrates its 150th anniversary, promoting research and innovation in the field of healthcare, as well as in quality and efficient medical practice, so that Mexico can maintain a healthy population and effective health institutions.

reference and to make recommendations on public policy. Among the many themes that the Academy is currently focusing on within this programme, the training of doctors is precisely a theme, through two complementary themes. One is directed towards a quantitative analysis of the need for specialists and is being carried out in association with the Faculty of Medicine at the UNAM, among other institutions, and another is related to a prospective vision on quality. In our future agenda, we have other themes such as the education of general practitioners and social services. Both themes are of great importance.

How does the Academy conduct its relationship with international counterparts, for example Royal Academies or other collegiate bodies?

There is an association that brings together the Academies in Latin America, Spain and Portugal, of which our Academy is part. Furthermore, there are specific collaboration agreements with some others, such as that with the Royal Academy of Catalonia, and close relationships like that with the Royal College of Physicians in England. We are also in close contact with the Institute of Medicine (IOM) in the USA, with which our Academy recently carried out a joint seminar regarding health system innovation, to celebrate the 150th anniversary of our foundation. Another instance is our relationship with the US Science Academy, which is also part of the IOM.

What is the role of the Academy in promoting research and innovation in the medical sector?

Since the nature of our membership is to incorporate very high-level researchers in all fields, the Academy is closely linked precisely to the generation of knowledge. Since our foundation 150 years ago, the Academy carries out sessions every Wednesday at 7pm to discuss diverse themes related directly to frontier scientific research. These sessions are open to whoever is interested in these themes, even if they are not members. Nowadays these sessions are transmitted live in high definition through our webpage so a broad public anywhere in the world can view them. Furthermore, this year we shall be organising a huge Congress regarding state-of-the-art technology in all branches of medicine aimed principally at medical graduates and those doctors who wish to update themselves in health themes associated with the most recent research. This Congress will take place 1 – 3 October in our Auditorium and in other auditoriums at the Siglo XXI Medical Centre, yet another component in the celebration of our 150 years. Finally, I should mention that the Academy has the oldest scientific publication in Mexico, established in 1864 called the Mexican Medical Gazette, through which we fulfil our mission to promote and publicise research.

In what way does the Academy interact with the public and private health sectors?

As always, the Academy has participated actively in both sectors through its members. As previously mentioned, through the PRAP, the Academy has taken a proactive position in its role as a consultative body to the Federal Government. Furthermore, the Academy has a place on the General Health Council and its members form part of numerous committees in public and private organisations.
What is the position of the Academy and its membership regarding the integration of public health services and universal access to them? Does this probable scenario represent specific challenges for Mexico’s doctors?

Once again I should mention the PRAP because within this programme we recently began a project called “Towards new paradigms in the Healthcare System” which focuses precisely on this theme. In this project outstanding personalities from the public and private health sectors are participating, not only academics and the results should be ready by October this year when we shall publish the Academy’s positioning paper on this theme.

Does the Academy have a specific position on the high work demand on doctors in Mexico, more importantly in the public sector?

Of course. This demand is not only numeric but also in terms of quality care and this is what concerns us the most. Due to this, the Academy carried out last year a “Latin American Summit on Health Service Quality”, where we received support from CONACyT, the Ministry of Health and the Social Security institutions. The US Institute also supported us for Healthcare Improvement (IHI) and experts from various countries on three continents took part. Next August, the Academy will carry out a further seminar, this time regarding the quality of health systems in general, once more with the support of the Ministry of Health and coordinated with the Pan American Health Organisation (PAHO). Based on both events a positioning paper will be produced by the Academy that can contribute to public policy decision-making on this theme, with answers regarding the high and growing demand on doctors, which emerge from Mexican society towards institutions and the doctors directly.

What elements have made the Academy so prestigious during its 150 years of existence?

Without a doubt, this is due to a history of success by its members. Suffice it to say, that among our members are those doctors whose names have been given to streets in Mexico City, in honour of their memory and these were our Founders. Each and every Medical Dean at the UNAM has formed part of the Academy (and the majority of the Deans at the National University have been doctors). All but one of the Directors of the Faculty of Medicine at the UNAM have been part of the Academy, since the National School of Medicine was founded in the 19th century. All the Founders of today’s National Institutes of Health have been part of the Academy. Seven Ministers of Health and Seven Secretaries of the General Health Council have been members. More than forty of our members have received the National Award for Science and the Arts and various have been or are members of the National College. The mortal remains of four of our members are buried at the Famous People Rotunda of the Dolores Civil Graveyard. To close, I should say that throughout our history sixteen members of our organisation have received Nobel Prizes. These examples suffice to illustrate why we feel so proud to be part of the National Academy of Medicine of Mexico.
Technomedicine
Home-care for diabetic patients

Medical devices have become a fundamental part of healthcare. Their development has allowed the diagnosis and treatment of illnesses to evolve in such a way that today several innovative technologies have emerged. These have contributed towards the possibility for various illnesses to be treated at home, where both patients and their family members can be involved in the progress of the disease. Hence, there is a better understanding and self-control of the symptoms.

Due to the fact that modern technology is constantly developing and evolving, even the most recent devices soon become obsolete, so that it is very important to have vanguard technology available in order to offer better healthcare services. Today many tools help patients and health professionals to control illness in the home instead of moving the patient to a health clinic. On the other hand, these tools allow health professionals to read and analyse information about their patients from their computer, giving real information on how an illness is developing, making it easier to diagnose and treat this.

The Mexican Health Authorities define medical devices as:
“The substance, mix of substances, material, apparatus or instrument (including the IT programme needed for its appropriate use or application), used alone or in combination with the diagnosis, monitoring or prevention of human disease or treatment aids, as well as for dismemberment, including those used to replace, correct, restore or modify the human anatomy or physiological processes”.

The manufacture, distribution, sales or use of any medical device in our country is regulated thanks to the issuing of a health registration – an authorisation that the Federal Government grants once the applicant has demonstrated using documentary evidence that the product is safe, effective and of good quality.

Due to the growing complexity of health systems, whether in processes or in medical devices, it is fundamental to fulfil the regulations relating to these. PwC Mexico supports suppliers and providers of healthcare with fulfilling the medical device regulations, based on its long experience in the sector, which favours taking the necessary measures to avoid or reduce errors and adverse incidents that might arise from the incorrect use of the equipment.

Life expectancy has increased in Mexico from 71 years in 1990 to 77 in 2013 and as a result, the prevalence of chronic diseases has also risen, both in their long duration and in their slow progress. This has led to higher healthcare demands and a need for closer monitoring. The presence of chronic degenerative diseases has caused an increase in home-care medical devices in parallel with the need to monitor sick family members, especially senior citizens who have a controlled illness.

Currently it is quite usual for patients suffering from chronic degenerative diseases to follow their recommended treatment at home and that is where the illness is monitored according to the parameters indicated by the doctor. This would not have been possible if it were not for the existence in the national market of medical devices with proven effectiveness, safety, quality and ease-of-use at accessible prices.

In the case of diabetes, the 2012 National Survey of Health and Nutrition (ESANUT) published that 6.4 million adults in Mexico have been diagnosed with diabetes. However, we must add to this figure a significant number of diabetic patients who have not yet been diagnosed and therefore are not yet receiving adequate treatment and follow up.
The consequences of diabetes in the health and quality of life of the patients suffering from it are often ignored. Too much glucose in the blood can cause damage to various organs such as the heart, blood vessels, eyes and kidneys, which can be gravely affected. The damage to blood vessels can cause a heart attack or stroke. Statistics show that 2 out of three people with diabetes die from one or other of these causes. Ophthalmological problems, diabetic foot, limited diet, pharmaco-dependency are some of the many other consequences that diabetics must face.

In order to avoid these consequences for diabetics it is indispensable that the patient and/or a family member constantly monitor glucose levels. This can be carried out daily using a glucometer to measure the glucose in the diabetic patient’s bloodstream.

There are a range of different glucometers on the market but, before buying one, it is necessary that the doctor, the patient and/or the family member are sure that they understand completely how to use and calibrate it. Furthermore, each of the device’s components needs to be properly stored, that is the glucometer, the lancets and reactive strips. Finally, they should carry out the quality controls recommended by the manufacturer with the indicated frequency, as well as checking the due dates of the solutions used to control the quality, calibration and the reactive strips.

Additionally, diabetic patients should monitor their vital signs using a digital sphygmomanometer, which measures blood pressure and heartbeat in the forearm and a thermometer to measure body temperature.

The 2012 ESANUT reports that 13.1% of patients diagnosed with diabetes receive insulin treatment, which can be given using a range of medical devices, the most common being with a syringe.

Patients with diabetes type 1 are candidates for receiving insulin through an insulin pump, a medical device that can administer insulin adjusted to the patient’s needs 24 hours a day. This equipment is the size of a mobile phone and is implanted beneath the patient’s skin. Its function is to control blood glucose levels between meals and while asleep. This device is accompanied by a continuous glucose monitor about the size of a two Euro coin, which is implanted in the stomach region. It is used to continually measure the glucose levels at different intervals 24 hours a day. It is designed to help the patient and the family member to understand how food, exercise and medicines can positively affect the glucose concentration in the blood, which helps treat the diabetes more effectively.

“The human being spends the first half of his life ruining his health and the other half trying to restore it.”

Joseph Leonard

One of the characteristics of diabetes is that it causes damage to various organs as the illness advances and often this can be monitored and even treated at home, if the doctor wishes.

As previously mentioned, one of the complications for diabetic patients is the risk of damage to the kidneys. When chronic renal deficiency develops, it is necessary to substitute the kidney function – this can be done temporarily through peritoneal dialysis or haemodialysis, or permanently through a kidney transplant. Of these three options, currently the one that can take place at home is peritoneal dialysis, a procedure that can eliminate toxic substances from the body that the kidney cannot remove naturally.

Peritoneal dialysis uses the peritoneal cavity as a filter. In order to achieve this, prior to dialysis a catheter should be permanently implanted in the peritoneal cavity, with access to it from outside the patient’s abdomen. The dialysis solution bags can be connected through the catheter thereby supplying the solution into the peritoneal cavity. Dialysis takes place while the liquid is in the peritoneal cavity; the excess of liquid and the by-products pass from the blood through the peritoneal membrane and collect in the dialysis bag. The solution is periodically changed during treatment.

There are two ways to provide peritoneal dialysis at home:

- Continuous Ambulatory Peritoneal Dialysis (CAPD), which is manual and the bag system is disposed of once the fluid exchange is finished. The majority of patients using this method need to make three or 4 dialyses every day that are carried out during the day.
- Automated Peritoneal Dialysis (APD), which takes place overnight while the patient sleeps. The apparatus used is a DPA machine that controls the time required to make the necessary exchange, it drains the used solution and refills the peritoneal cavity with new solution. The patient connects up to the machine before going to bed switches it on and connects the catheter to a series of machine lines. The machine carries out treatment for 10 hours and in the morning, the patient disconnects.

Although this treatment can be used at home, both the patient and the family member should be previously trained both in the technical skills required to operate it and the handling of the automated equipment, which varies between different brand and models.
**Media Register**

**Health service**

**The Ministry of Health outlines reforms to the health system**

“The Health Minister Mercedes Juan presented to the Senate the Federal Government’s proposal to modify Article 4 of the Constitution with the aim of improving the national system of universal health and guaranteeing effective, quality access to federal and local services, independently of their social standing or work status.

Within the framework of the National Social Security Week organised by the Senate Select Committee on Health, Dr Juan put forward to legislators and sector specialists that changes are proposed to the Social Security Law, the ISSSTE Law, the General Health Law, the Fiscal Coordination Law and the Federal Law on Budget Responsibility, as well as their respective regulations. She recommended the introduction of explicit health guarantees and the establishment of a body to revise and guarantee access. (El Universal, 26 April 2014).

“The reform to the General Health Law will bring immediate benefits to Mexican citizens”, Isaias Cortes Berumen, President of the Congressional Select Committee on Health said. He considered that there will be up to 30% savings in the purchase of medicines and a tax revision system that will force states to channel the 80,000 million pesos that up till now they have assigned on average to Seguro Popular, exclusively to healthcare. “There are at least 14 states that have had difficulties proving the correct expenditure of the public resources received for this concept. Health Minister Mercedes Juan knows what she is doing. We can say goodbye to corruption and capital flight. Everyone will win, especially Mexico”. (Excelsior, 10 May 2014).

**Pena gives instructions to supervise quality in services**

President Enrique Pena Nieto sent instructions to create a new body to supervise the quality of medical services that are given to the population.

On International Health Day, the Head of State asked the Head of the Ministry of Health Mercedes Juan to do whatever is necessary to set up this new body. While details were not given on its structure or objectives, it will work in parallel with the COFEPRIS, which is currently in charge of supervising good services.

The President attended the inauguration of the new installations of the Institute for Diagnosis and Epidemiological Reference (INDRE) where he celebrated the fact that Mexico has solid health institutions and can make specific contributions such as the fight against malaria and the control of dengue fever. (Milenio, 8 April 2014).

**Announcement of the new Health Attorney General’s Office**

In the framework of the seminar “Health Sector Challenges in the Universalisation of Health Systems”, Health Minister Mercedes Juan announced the creation of a Health Attorney General’s Office, which will be in charge of invigilating and evaluating the fulfilment of this constitutional right. She went into detail by saying that the Health Attorney General’s Office would function like an evaluation body and would follow-up on healthcare for the patient in order to guarantee that specific interventions are fulfilled, for example in the case of Seguro Popular (Excelsior, 14 March 2014).

**Hospitals will be forced to give emergency attention**

Senator Angelica de la Pena declared: “Materialisation is a right, just like the health of Mexicans is, it will not be achieved by simply increasing fines, nor by putting people in prison, rather it is about strictly applying the Law.”

The PRD legislator highlighted that in parallel a public policy must be set up with clear strategy and objectives. For the President of the Human Rights Select Committee at the Senate, Health Minister Mercedes Juan’s announcement of a project to give legal support to the National Health System and to create the Health Attorney General’s Office generates positive expectations.

Senator Angelica de la Pena emphasized that in the Senate they are eager to know in details about the Ministry of Health’s project, to analyse it and contribute to it so that it becomes a public policy that guarantees health to every single citizen. (La Prensa, 16 March 2014).

**Seguro Popular is “ready to go”**

Portability, that means the possibility that someone in Mexico State can receive medical attention in a hospital in Sinaloa State, that a capital city dweller can be treated in Nuevo León State or someone from Hidalgo State can be treated in Mexico City are part of the proposed changes in the General Health Law. Another aspect is that States must open specific bank accounts where the Federal Government can deposit money for healthcare services to Seguro Popular. All of these aspects form part of legal changes that will ensure that resources that are ring-fenced for health reach their destination – the patient that needs them.

That is how the National Commissioner for Social Protection in Health – Gabriel O’Shea Cuevas – sees the aim of the health reforms approved last 28 April, so that states have a clear idea on the epidemiological needs of their inhabitants, to give them a better level of healthcare and to guarantee that money destined to health, gets spent in health.

From now on, when a Seguro Popular user is attended to in any public sector health establishment, the Ministry should channel that establishment an amount corresponding to the attention granted.

What does this mean? Commissioner O’Shea explained: when IMSS has performed 20 appendectomies on people who are not affiliated to IMSS, but to Seguro Popular, then Seguro Popular must pay for those appendectomies. Similarly, if 20 people affiliated to IMSS had cataract operations at the Juarez Hospital who do not have Seguro Popular, then IMSS must pay for those operations. (Excelsior, 14 May 2014).
A shift in the regulatory map
Labelling for food and non-alcoholic beverages: Protection for the population

In Mexico obesity, diabetes and high blood pressure have reached alarming proportions in recent years; in men over 20 years old 42.6% are overweight and 26.8% are obese, while in women these figures are 35.5% and 37.5% respectively, according to the 2013 – 2018 National Development Plan.

In that sense, as a preventative measure harmonised with international best practices in health regulation, on 15 April 2014 the Federal Commission for the Prevention of Health Risks (COFEPRIS) published in the Official Gazette an agreement on new labelling guidelines. These relate to rules that food and non-alcoholic beverage manufacturers must observe regarding the information shown on the front label of products with the aim of improving the diet quality of Mexicans by regulating the nutritional information.

In the strictest cases such as high-calorie soft drinks, they are required to highlight sugar as the prime ingredient, how many calories they contain and the percentage of recommended diet intake they represent. For example, a 355 ml bottle of soft drink will have to show that it contains 149 calories, which represents 41% of the recommended daily intake of sugar. This will allow consumers to calculate how many soft drinks or other sugar-based products should be consumed in any given day.

Family-sized bottles will show a content of 1,380 calories, which represent 383% of the recommended daily intake of sugar per day.

By establishing the obligation to show on the front label clearly and simply the calorie content of each ingredient (saturated fat, other fats, sugar, sodium, energy content and energy by container), the idea is to make consumers aware about their food intake and how to make their diet healthier. This in turn aims to prevent the effects from excessive consumption of calories and that we should be jointly responsible for our health to avoid illnesses such as diabetes or obesity, among many others.

In the fulfilment of this norm, some foods and non-alcoholic drinks are exempt, for example those whose nutritional content per portion is equal to or less than 1% of recommended daily intake, such as herbs, spices, condiments, whole grains, among others.

In addition to this, there is a new element, which consists in a Nutrition Seal or Stamp. This is new scheme whereby the Ministry of Health through COFEPRIS will grant a quality seal to those products that are low in saturated fats, in fats in general or in sugar or sodium. This stamp will benefit the user in terms of publicity and recognition by the authorities.

So now in Mexico the consumer has better information tools in order to take rational decisions about diet based on hard facts and thus avoid excesses that can damage people's health.

Added to what has been described, daily intake is a standard amount, which cannot be modified in each case. On the contrary, it is a reference point that offers an objective perspective on daily nutritional needs, to indicate whether a particular food fits with our daily nutritional needs. In this way, people start to learn what a good diet is and how to adjust the calories we should eat daily, in order to be healthier and prevent disease. The introduction of this kind of regulation will surely increase the quality of Mexicans’ diet.
HIV/AIDS

After years of studies, controversies and the official approvals required, the Centre for Disease Control (CDC) issued new recommendations for the prevention of AIDS and has advised high-risk populations to take a medicine commercially known as Truvada in order to reduce the probabilities of HIV infections. The CDC recommends that the following populations should take preventative medicine to avoid contagion: homosexuals or bisexuals who practice sex without a condom, heterosexuals with high-risk partners, intravenous drug addicts, bisexual men who have unprotected sex, people who have sexual relations with an infected person and anyone who shares syringes, that is drug addicts who use this method.

The CDC recommendations come almost 4 years after the New England Journal of Medicine published in November 2010 the results of a three-year clinical study (financed by the US NIH) announcing that a new treatment would soon be available that would reduce the risk of HIV infection by 90%. Marketed under the name of Truvada, this pill was produced in 2004 by Gilead Sciences, the world's largest manufacturer of AIDS drugs, and this could be used in conjunction with other antiretroviral medicines as a basic treatment for AIDS.

Therefore, the MIH reached the conclusion that Truvada could not only treat infected people but also could avoid healthy people from becoming infected. The researchers labelled the treatment as preventative prior to exposure to risk, an abbreviated term. Whether you like it or not, more than a few people are referring to it as the new condom.

Diabetes

Researchers in Mexico and the United States have identified a gene among Mexicans that gives them a high probability of developing diabetes type 2, an illness that an estimated 12 million people suffer from in our country. According to Maria Teresa Tusie Luna, an academic at the Institute of Biomedical Research at the UNAM and a member of the research team, this is a transporter gene denominated SLC16A11, which takes part in the unusual accumulation of lipids – especially triglycerides – that is frequent in a broad range of mestizos in the country. “By using genomic maps we have been able to identify this gene, which is of particular importance because it is a major contributor to diabetes risk in our population”, she added. Diabetes is one of the illnesses that causes most costs in the health sector, which has proven unable to offer timely treatment or efficient control of the patients, due to the fact that it kills over 80 thousand Mexicans each year.

Technology

Inspired by a system of human vision and based on algorhythms and mathematic equations, Boris Escalante, a Professor at the Faculty of Engineering at UNAM has created some new software in order to study vital organs such as the heart and the brain. This helps to diagnose heart conditions, chronic obstructive lung disease and eventually Parkinson’s and Alzheimer’s Disease.

Computer scans and magnetic resonance images are effective but they make doctors take subjective decisions; for this reason, this Mexican academic uses the new software to give specialists objective measurements with specific parameters in order to reach a correct diagnosis.

These tools bring mathematical transformations to the images, which are called Hermitiana, Gabor and Gabor Log, developed by Professor Escalante and one of his students and they can be analysed as if they were our retina and cortex.
**Cancer**

An Israeli pharmaceutical company recently caused a big impact in cancer research. The company Vaxil Bio Therapeutics, based close to Tel Aviv, has just developed a vaccine that can prevent the return of 90% of cancers in recently recovered patients. The vaccine is at the clinical study stage and there are hopes it will be openly available by 2017. Once approved, it can be administered to patients not only to help treat existing cancers, but also to prevent that the illness returns. According to Julian Levy, the company’s CFO, the important point is that the vaccine activates the patient’s immune system so that it attacks any threat.

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**Antibiotics**

While studying one of the 12 species of croton bush in the state, researchers in the pharmaceutical department of the Autonomous University of Hidalgo State (UAEH) have discovered an antibiotic 2.5 times more powerful than amplimycin and metronidazole. The new antibiotic, which as yet has not been named, was extracted from the croton hipoleucus species and inhibits tumour growth, as discovered by the researchers during a study aimed at investigating the use of the plant as an antibacterial agent in skin diseases. The components of this powerful antibiotic will be used as an odontology treatment to eliminate bacteria in dental plaque. Juan Antonio Gayoso, research professor at the Life Sciences Institute at the UAEH, expressed the view that, once the experimental lab phase has been completed, they plan to produce a mouthwash or an additive for toothpaste to combat infections that are more aggressive.

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**Atlas of emotions**

Finnish scientists at the University of Aalto led by Lauri Nummenmaa carried out a study, which proved that emotional states are associated with body sensations. The study consists of five experiments carried out on 701 people (Fins, Swedish and Taiwanese). The subjects had to locate a place where they felt some effect when exposed to a series of emotions such as rage, fear, disgust, happiness, sadness and surprise; and other more complex emotions such as anxiety, love, disdain, pride, embarrassment and envy.

There was more than a 70% coincidence in the body zones where they felt an effect. Using these results, they were able to create a physical emotional map, the basis of which is biological and universal. Dr Nummenmaa explained that this is due to the following: Human beings have biological mechanisms that prepare us to respond to events in our environment, they can be useful as a defence or alternatively to enjoy the different situations we are facing.

From the map we can see that the two emotions that cause the most intense body reaction are love and joy; on the other hand, more base emotions – rage, fear disgust, happiness, sadness and surprise – set off sensations in the upper part of the body, where vital organs are located such as the head.

According to the researchers, the map will serve as a tool to understand emotions and their biological effects.
The tax pathway

Tax news regarding the destruction and/or donation of goods that have lost their value, as regards taxpayers in the health sector

Merchandise, raw materials, semi-finished and finished products that exist and that, due to deterioration or other causes not attributable to the taxpayer have lost their value, can be deducted from inventories during the tax year when this occurs, in terms of calculating income tax (ISR).

In order to do this, taxpayers can deduct the above-mentioned products, when they fall into the following categories: basic goods for human subsistence such as food, clothing, housing or health. Before proceeding to their destruction, they shall be offered as a donation to those institutions that are authorised to receive deductible donations in accordance with the Law. These should also be dedicated to the care of basic subsistence needs such as food, clothing, housing or health for people, sectors, communities or regions of scarce resources. The donor must fulfil the requirements for doing so as stipulated in the Regulations of the Law on Income Tax (RLISR).

Among the prerequisites in the above Regulations are the following:

a) The presentation of a donation and destruction of inventories advice using the Tax Administration Service (SAT) website. When the goods have a due date, the advice must be submitted at least 5 days before this expires. In the case of medicines, the advice must be submitted at least 6 months before expiry.

b) The taxpayers who are offering to donate the inventories mentioned must inform SAT through the website, at least on the 17th of the month immediately before that in which the donation will take place. They must give the company name and the tax registration number of both the donor and the beneficiary, a description and the amount of donated goods and the date on which they will be donated. They must also register the description and amount of goods that have been destroyed.

c) The goods must be maintained in the same conditions that they had when for sale, up until the time of their delivery.

It is important to mention that taxpayers may not donate any goods that are subject to other legal indications regarding their handling, care and treatment or where their sale, supply or use are prohibited, or where they must be disposed of in some other way.

The RLISR points out that, in the case of perishable goods, or when due to their activities the taxpayers need to destroy goods on a regular basis, they should indicate a destruction calendar for each tax year, which might include weekly, fortnightly or monthly destruction. The authorities can authorise periodic destruction for shorter periods.

Among the tax modifications applied to the tax year as regards donations and the destruction of inventories of basic goods for human subsistence in health, there are the following:

a) For taxpayers who must destroy or offer in donation merchandise, raw materials, semi-finished or finished products, which have lost their value, ceased to be useful or have expired, instead of submitting a calendar of destruction, they can send an advice regarding donation or destruction. This needs to be done on Form 41/ISR “Register of advices of donation or destruction of goods that have lost their value due to deterioration or other causes”. The form can be found on the SAT website under Rule 1.3.3.1.35 contained in the First Resolution of Modifications to the 2014 Miscellaneous Tax Resolution, which was published in the Official Gazette of 13th March 2014.

b) It is important to mention that, through a decree that compiles various tax benefits and establishes administrative simplification measures published in the Official Gazette on 26 December 2013, Article 1.3 grants tax incentives to taxpayers who donate basic goods for human subsistence in food and health. This is when the donation is for institutions authorised to receive such donations and takes the form of an additional deduction for an amount equivalent to 5% of the sales cost they would have had, provided they are proven to have been donated and are still useful for human consumption.

The above only applies when the gross profit margin of the donated goods is equal or higher than 10%; if it is lower, then the percentage of additional deduction will be reduced to 50% of the margin.

With effect from the 2014 tax year, as regards the above, the regulation stipulates that such basic goods for human subsistence for food and health are only considered useful in an amount that the population target are able to consume. In the case of perishable goods with due dates, the taxpayers must donate them at least five calendar days before expiry. In order to preserve the value of these goods, taxpayers who wish to maintain them in the same state of conservation as they were for sale. (Rule 1.10.4.1 published in the 2014 Miscellaneous Tax Resolution published in the Official Gazette on 30th December 2013).

Therefore, in order to reap the benefits of this tax incentive, the donation of any medicines should be carried out within the timescale indicated.
Publications: sharing our knowledge

Incremental Innovation
The experience of Valencia in Integral Public Private Partnerships.
This report presents the experience of the Valencia Community in Spain in implementing Integral Public Private Partnerships (IPPP) in the health sector. It points towards a radical transformation that has occurred in public health services in the region since 1997, where the setting-up of contracts between the government and the private sector has resulted in improved access to high quality health services. This in turn has allowed the broadening and improvement in healthcare infrastructure, promoting innovative practices for the improvement of health management.

Lessons from Latin America
Early experiences in Public Private Partnerships in the health sector.
This study analyses the PPP panorama in the health sector in 17 countries in Central America, North & South America, excluding Brazil, the Caribbean and Surinam. With over 18 PPP projects planned in the health sector, the scale and scope of infrastructure needs in Brazil creates a favourable environment for PPPs, which merits future research to discover the lessons learned in recent years.

Managing innovation in pharma
The perspectives in the pharmaceutical industry that are to be found in “The 2013 Global Innovation Survey” indicate an insatiable appetite among society, investors and patients for pharmaceutical innovations. This is directly related to great scientific and technological advances in innovation processes. For this reason, even the smallest steps within such processes can make a big difference.
5ª Encuesta de CEO en México
Los CEO mexicanos mostraron una fe notable en que la economía del país está tomando buen rumbo.

Confianza y transformación:
México explora nuevas realidades económicas

82% de los CEO sienten confianza en cierta medida o están muy confiados acerca del crecimiento en los siguientes 12 meses.

64% de los CEO han implementado medidas para recortar los costos en los últimos 12 meses.

83% de los CEO mencionan que una de las principales amenazas económica y política es la creciente carga fiscal.

Conoce los resultados, ingresa a: www.pwc.com/mx/encuesta-ceo