In the year 2000 a high percentage of the Mexican population had no health protection, since it was customary to have health schemes linked to formal employment, which linked workers to the private sector as well as to the federal and state governments. But around 40% of Mexico’s inhabitants who were not in formal employment or who were self-employed had no social security at all.

In 2003 a reform in the General Health Law and its application in practice brought with it a new System for Social Protection in Health, better known as Seguro Popular, whose basic concept was to grant financial protection in health to those not affiliated to the state social security system.

Since the creation of Seguro Popular it was also thought that the open population would be able to reduce its out-of-pocket expenditure, but today this still represents 47% of total health costs, being one of the highest in the OECD. Although it is true that, according to the Ministry of Health, Seguro Popular has almost 53 million affiliates, its degree of use still leaves room for improvement in benefitting the economy and even more importantly the wellbeing of Mexicans.

A significant part of this room for improvement has been put forward in the proposed changes in the Social Reform package, as an important first step based on a detailed analysis of the circumstances faced in the Mexican healthcare sector today, where economic, social and political factors come together to make the situation even more complex, yet the fundamental objective is to achieve universal health services.

José Alarcón Irigoyen

A run through the current health scenario with Professor Antonio Chemor Ruiz

General Director for Finance at Seguro Popular

Today’s reality at the National System for Social Protection in Health – Seguro Popular

Since the creation of Seguro Popular, what do you consider have been its most significant achievements?

Seguro Popular has guaranteed access to social protection in health for more than 53 million People, making it the largest insurance system in the country. It distributes funds to Mexico’s 32 states which allows them to cover health costs to the benefit of the open population; furthermore we have been able to cover all primary care interventions and the main illnesses that cause hospitalisation costs. Seguro Popular also finances families to face the treatment of diseases that cause catastrophic costs and also contributes resources to strengthen health infrastructure.

In what way are Seguro Popular’s actions linked up at state level with IMSS and ISSSTE services, how can duplication be avoided and how can we maximise healthcare resource?

Today, the efforts that inter-relate social security institutions are carried out by the General Health Council. There are examples of coordinated actions, such as the agreement for handling obstetric emergencies, that allow women in these circumstances to be treated at any public health institution, no matter whether they are affiliated or not. This demonstrates the beginning of a move towards the universal access to medical services.

The removal of duplicate records between different social security systems is a demanding task that we at the System for Social Protection in Health are observing closely, in order to ensure that resources are being directed towards the population that in practice have no other access to health in the country, at the same time cancelling benefits to those people who have alternative social protection schemes.

Prof. Chemor studied his doctorate in strategic Management and Developmental Policies at the Anahuac University and holds a Masters’ Degree in Ergonomic from Harvard. Currently his job is as Director General for Finance at Seguro Popular (SPSS). He was previously well known for his role in the Government of Mexico State, where he worked as Coordinator of Tertiary Care Hospitals, director General for Investment and Director of Developmental Planning.
In the period 2004 – 2012 418,604.50 million pesos were invested in physical infrastructure using resources from the Budgetary Provision Fund and 19,965.59 million pesos in physical infrastructure using resources from the Social Quota and the Federal Solidarity Contribution.

**What is the position of Seguro Popular as regards the creation and interconnectivity of the Electronic Patient Record, as a portability tool?**

The electronic patient record is a powerful instrument which has the advantage of giving timely information for medical care. However the challenges faced in implementing it are directly proportional to the abilities of the healthcare organisations involved in executing it. Seguro Popular is working towards achieving a Patients’ Register without duplications and supporting the financing of an electronic record system together with the states that are collaborating in implementation. The aim is to start to exchange data in order to first of all have the most important information, so that gradually additional data can be added in the future that can have an impact on effective medical care.

**In what way can we reconcile objectives and strategies between the federal divisions of the Ministry of Health, the REPSS and the state Ministries of Health, in order to fulfil efficiently the agreements for the transferral of resources?**

The main concern of the Financial Division of the National Commission for Social Protection in Health is the timely transfer of federal resources, so that we can fulfil appropriately the payment of salaries to workers, the purchase of medicines, the operation of medical teams and other is necessary for medical attention. In 2013 the legal instruments for operation were changed and, for the first time, it became obligatory for system resources to be transferred to and held by those organisations and entities responsible for carrying out the expenditure in each of the states.

**Over the next 12 months, which illnesses will become included in the Universal Catalogue of Seguro Popular and what will be the impact of this decision?**

The Universal Catalogue of Health Services (known as CAUSES) is the reference document for the system to operate, since it serves as a basis in order to estimate the medical costs that will be financed and determines the health actions that will be covered. Currently 285 interventions are included covering 1,435 diseases.

The current package is under review with a view to including more interventions. However, taking into account that resources in the system are limited and that expenditure depends on the behaviour of death rates and costs, it will be necessary to carry out financial and actuary studies if we wish to consider including new illnesses.

**Are you considering modifying the financial scheme in order to make Seguro Popular more viable and to assign more responsibility to families regarding the effects of lifestyle on their health, that is to say, are you considering modifying the ratio between the social quota and the state solidarity contribution?**

The ratio corresponding to the social quota which the states received law has not been modified and this allows for financial equality between institutions and for the reduction in the gap between public expenditure on both the beneficiary population and the open population, as well as supervising joint responsibility and equality in the financing of the system.

The contribution that the states provide corresponds to half that quota and follows the same financial logic.

People’s payment obligation in the financial scheme is minimal since 99.5% of those affiliated to Seguro Popular falls within the non-contributory scheme.

However, Seguro Popular has put into place the programme “Safe Appointment” which consists of applying a medical check-up based on the National Health Card, Sector Medical Guidelines and Official Health Norms, which allows us to determine specific health risks for those affiliated to Seguro Popular.
In view of an important requirement for more and better hospital infrastructure in the states, to what degree can Seguro Popular influence the amount of federal investment?

Currently Seguro Popular can influence federal investment in hospital infrastructure, financed by the Budgetary Provision Fund (FPP) as well as the Social Quota (CS) and the Federal Solidarity Contribution (ASF), which can improve the situation. In the period 2004 – 2012 4 18,604.50 million pesos were invested in physical infrastructure using resources from the FPP and $ 19,965.59 million pesos in physical infrastructure using resources from the CS and the ASF, totalling $ 38,570 million pesos).

Taking into account the social security proposal contained in the tax reform, how will this affect the degree of supervision by Seguro Popular?

The proposal included in the tax reform will reinforce the monitoring of contributions destined for the system, whether these are generated by the federal or the state government (the Social Quota and the Federal or the State Solidarity Contribution), thereby ensuring follow-up in the administration of the Fund for Protection against Catastrophic Costs and the budgetary assignation.

It is essential to guide the system towards the efficient use of the resources it has so that supervisory actions have a direct impact on improved quality in the health services given to the affiliates

What has been the degree of success in certifying private health centres and the use of these by Seguro Popular patients?

Accreditation in general is a successful process, since it involves carrying out an evaluation of health establishments, using fixed standards relating to the capacity, quality and security needed to offer specific services under the Universal Catalogue of Health Services (CAUSES) and the Fund for Protection against Catastrophic Costs. The same mechanism is applied to all health services providers whether public or private and, independently of which, the aim is to bring together the basic requirements in order to carry out the medical activities needed to attend to the affiliates.

What is your vision of Seguro Popular’s development over the next three years and then by 2018?

We have find actions that have had an impact on the health of 53 million people; however the challenge over the next three years –and indeed the federal government’s concern– is that the services given are of good quality and that people have the opportunity to access them. We are tasked with achieving that over the following years and also that the range of conditions for delivering health services allow us to achieve the best outcomes and the most satisfaction for the patient, thereby supporting decision-making in the medical units and supervising that they have appropriate resources.

Another important challenge is efficacy and efficiency in the use of resources in order to ensure timely access to the services, supporting social development and progress as well as reducing the gap that exists for the poorer population.
The innovative development of medical equipment smaller than a micrometre that allows nerve cells to recover their functions and organs to return to their biological activity, opens a new vision in the future of medicine.

Bioelectronics is a medical speciality that combines electronics and biology and seeks to solve problems in the electrical conduction in the central nervous system in humans by electronically stimulating the cellular molecule.

The concept of bioelectronic medicine is derived from the idea that all diseases begin with an electrical imbalance on a cellular level, so that the aim is to identify the organ suffering from this imbalance and apply to it medical treatment to re-establish normal conditions.

In order to achieve this it is necessary to use nano-metrically sized medical devices, commonly known as nanotechnology. This technology can resolve today’s medical challenges and reduce healthcare costs, generating new opportunities in research and in the sale of medical applications.

Due to the potential observed in the bioelectronic field, both the United States and Europe are carrying out R & D programmes focussed on developing tools in order to better understand the architecture and functioning of the brain so as to identify its relationship with the central nervous system and different body functions. Once this connection is established, they will work on developing medical devices that can stimulate all brain cells in real time and on linking this function with specific diseases to develop new treatments.

Today there are companies focussed on bioelectronic innovation in different fields such as medical devices and medicines, where they are developing applications in order to identify the functions of specific proteins. In the field of medicines they are advancing towards developing new kinds of medicines based on molecules for personalised medicine.

In Mexico bioelectronics has concentrated on research, so that there are organisations dedicated to publishing, teaching and scientific Project development. Another aspect related to bio electronics in our country is the training of postgraduates in the field.

Bioelectronics looks to become the future of medicine, since currently it is in full swing as regards the development of medicine and medical devices, so that is why PwC considers it represents an opportunity for setting up new businesses in innovation.
Since the previous government administration, there have been strenuous efforts to move towards a unified Electronic Patient Record (EPR). IMSS historically made most of the running on this using a Veterans HDL system, but of course the unique identifier for that system was the IMSS affiliation number. When ISSSTE decided to take action on EPRs, it was logical for the unique identifier to be the ISSSTE affiliation number – ISSSTE advanced much further in creating a Call Centre where users could ring in to make appointments and the EPR would appear on the telephonists screen to register the appointment. More recently with the creation of Seguro Popular a significant need was identified for an EPR system, in order to allow for the portability of services between one state and another – yet with a view to a possible future integration, Seguro Popular chose the CURP Population Identity number as its unique identifier. Clearly a storm was brewing for the future EPRs where the biggest challenge would be the interconnectivity of these three different systems. Taking into account international experience that indicates how truly expensive it can be to install country-wide EPR systems, any attempt to move forward in an integrated way was stifled when a 2012 tender offering $US 100 M to companies willing to design the EPR was declared void. At the beginning of the current administration, all eyes were turned on how government would proceed regarding the EPR challenge.

In a recent interview with Juan Carlos Reyes, General Director of Information at the Ministry of Health, he expressed the view that previous plans had been too ambitious. Today the aim is for a more compact and simpler system that can be built up over time. He indicated that the first step is to reform Norms 024 and 035 so that the unique identifier of the system is the CURP and to define what personal information can be exchanged or not. The second step is to assign sufficient budget for a stage-by-stage introduction. Thirdly a National Universal Register of Beneficiaries must be concluded, with precise details of their dependents and eliminating duplication. For example, of the 54 million people inscribed in Seguro Popular, 8.4 million are also inscribed in IMSS and 1.2 million in ISSSTE. Lic Reyes surprised experts by saying that EPR information will be held in each individual institution or hospital and not at a central depository. The suggested timeframe is: in 2013/14 consolidate geographic data; in 2014/2015 to set up a health professionals register and in 2015/2016 to go “live” on the EPR federally. Another surprise is that the 32 states will not be required to join the system, but may if they wish.

In a separate interview with Dr Gabriel O’Shea, National Commissioner at Seguro Popular, he was convinced that once all systems use the CURP as a unique identifier, any doctor anywhere in Mexico will be able to access the EPR. However, negotiations still continue with the Federal Institute for Access to Information (IFAI) as to what information can be shared and how much must remain confidential. Dr O’Shea was more concerned about harmonising the service provision between Seguro Popular, IMSS and ISSSTE using agreed reference prices, so that EPRs can “speak the same language”. He was optimistic, though, that a fully operational EPR system was achievable by 2018.

One thing is clear: until Mexico resolves its EPR issues, its healthcare providers will not be able to take advantage of insights produced by so-called “big data” to improve the treatment of patients. Big data in healthcare is relatively new since it depends on the gathering of data from EPRs. But unless there is a consistent effort to develop ways of collecting, storing and accessing data there cannot be any big data analytics. Big data analytics allow public health systems to see a bigger and more integrated picture, where trends emerge and this represents an extremely valuable strategic planning tool. The information might be purely clinical, or could be socio-economic, epidemiological, demographic or even financial. While big data trends can greatly inform central planning departments, it only achieves its full potential when it is fed back to the hospitals and clinics, where it is an extremely useful instrument for improved quality and positive change.

One thing is clear: until Mexico resolves its EPR issues, its healthcare providers will not be able to take advantage of insights produced by so-called “big data” to improve the treatment of patients.

Media Register
Electronic Patient Record (EPR)
A shift in the regulatory map

Towards an Official Mexican Norm for pharmacogenomics: a change for the Mexican healthcare system.

The Mexican Government has imposed upon itself the challenge of creating an Official Mexican Norm regarding pharmacogenomics. This was announced through a Supplement to the National Norms Programme 2013, which was published in the Official Gazette on 23 September 2013.

Pharmacogenomics
Pharmacogenomics is the term used to describe the scientific discipline used to study variations in the human gene and how such variations are related with the response of each individual to the effects of medicines.

Pharmacogenomics opens the possibility for medicines to become more personalised, more effective and less toxic, since using this scientific discipline it is possible to identify specific genetic variations, allowing us to select therapeutic targets and to identify in a highly precise way those people with a risk of developing adverse effects to certain medicines.

This technical regulation aims to establish the requirements for the health control of pharmacogenomics so that it is possible to guarantee health protection and the security of products and services, thus avoiding the repetitions of adverse reactions. It also establishes the minimum requirements necessary for best laboratory practices and will be obligatory for anyone who wishes to obtain the health registration of any medicine with these characteristics and also for anyone carrying out biomedical research in this field, which includes a broad spectrum of large hospitals, educational institutes, research centres and pharmaceutical manufacturers in Mexico.

Aspects to be regulated as regards pharmacogenomics
Since this is a technical regulation that is obligatory, it is necessary to establish some basic facts about pharmacogenomics in Mexico, as well as having a series of legal definitions for concepts usually used in the field of medical and biological sciences.

Among the principal aspects that emerge it is important to indicate some general rules for the use of genetic data. Pharmacogenomic studies should contribute to a greater understanding of the differences between individuals as regards the efficacy and security of medicines, without overlooking people’s privacy, so that in the future we can expect legislative changes in the General Health Law, the regulations on health research and the Federal Law for the Protection of Personal Details held by Private Individuals.

It is important to highlight that the aim of determining people’s genetic variations responds to the need to identify, with a high degree of certainty, those individuals that have a high probability of having a positive response to experimental medicines, or a greater predisposition to have adverse reactions to a particular drug or may need a dosage adjusted in accordance with their genetic biomarkers; in this way reducing healthcare costs and maximising the therapeutic benefits through pharmacogenomics.

Another aspect we can assume and needs to be included is that related to best practices in pharmacogenomics. These best practices based on international experience include aspects related to the obtaining, storage, management and final destination of biological samples.
Pharmacogenomic studies should take into account proceedings, methods, objectives, the kind of study to be implemented, segmented participation of individuals (both healthy and sick), how the results will be validated and other statistical considerations.

As is known, DNA is found in blood samples, in cellular samples in tumour biopsies and in many other biological Collections, which by necessity are associated with other kinds of information, such as the context related to lifestyles and family predisposition. In this line of thought, we believe that bio-banks will experience explosive growth in the following years, due to the fact that biomedical research depends upon the timely availability of quality medical samples and the appropriate management of bio-banks.

Pharmacogenomic studies are based on the prevalence of genetic variations related to the absorption, distribution, metabolism and excretion of substances. Here it is essential to mention that these variations differ between different ethnic groups; for example African Americans, Asians, Caucasians and Mestizos, so that pharmacogenomic studies for the Mexican population must be based on definitive studies for our specific population.

In summary, pharmacogenomic studies should take into account proceedings, methods, objectives, the kind of study to be implemented, segmented participation of individuals (both healthy and sick), how the results will be validated and other statistical considerations.

Towards personalised Medicine

The decoding of the human genome opened huge possibilities for clinical research, health research, public health and technological advancement. Through this, an immense impact in the diagnosis and treatment of common illnesses is expected, together with a change in the paradigm in the disease treatment model.

For its part, the challenge for health service providers, industry and government is to maximise the opportunities that pharmacogenomic development presents and to minimise or reduce the possible risks. The above cannot be achieved without a long term vision or without an adequate analysis of where Mexico is at regarding biomedical development and research.

It is important to highlight that the vision of the Federal Commission for Protection against Health Risks in incorporating the pharmacogenomics theme in the Supplement to the National Norms Programme, could well be the foundation stone upon which a series of legislative reforms in biomedical sciences rests, just as this is happening in the rest of the world.
**Biotechnology**

A study carried out in Madrid’s 12 de Octubre Hospital and published in the journal Cytotherapy concludes that stem cells from the placenta can be transformed into hepacytes (liver cells). In turn these form into a structure called a hepatosphere, able to produce albumin, which is a function usually carried out in the liver. This discovery means it is possible to improve the condition of transplant patients and those patients on the waiting list.

A team of Japanese scientists at the University of Yokohama led by Prof Takanori Takebe, has developed a fully functional using induced pluripotent stem cells (iPS), according to the magazine Nature. Takebe explained that a new methodology was used combining various types of cells. “We mixed 3 kinds of cells; human iPS cells taken from the liver, endothelial cells taken from the umbilical cord and mezenquimal stem cells derived from human bone marrow”. “The impact of the research is to be found in the fact that we proposed a therapy of implanting human organs that were still being cultivated (in contrast to cells or a mature organ) which could help treat certain diseases” he declared.

**Dengue Vaccines**

In view of the alert issued by the World Health Organisation (WHO) that dengue virus represents a real “threat” since today it affects more than 100 million People in the world, the US Food and Drug Administration (FDA) authorised a “fast track” accelerated authorisation for the First known vaccine. In fact Phase III clinical trials have been carried out on 40,000 people in 15 countries. The aim is to have the First lots available by the end of 2013 and, after having approved the security efficacy studies required, to sell the vaccine in 2015. In Mexico dengue fever has become a matter of “national security”, given that it has now spread to 27 states and up till now has registered an accumulated total of over 12,000 cases.

**Obesity**

Traditionally it has been thought that drinking water helps people to slim. In this context a team of German scientists from the Berlin Charité University Clinic has carried out the First research that actually proves this theory. The study demonstrates that people who increased their water intake by a litre a day lost between one and two kilos more in weight tan the control group. This was due to two factors such as the sensation of physical satisfaction of feeling full and the speeding up of metabolism that the water causes.
**Diabetes**

Dr Richard Bergenstal, Head of the Diabetes Department in Park Nicollet in Minnesota announced that a new medical device opens up the possibility of creating an artificial pancreas. We are talking about an “intelligent” insulin pump, programmed to switch off if the sugar level drops too much while the patient is asleep. It is already available in Europe and the FDA is reviewing it in the US with a view to approval. For the moment the project is aimed at those who suffer from Diabetes Type 1, so that instead of having to inject themselves with insulin various times a day, this can be received using the pump through a narrow tube connected to the skin. The pump is the size of a mobile phone and can be carried on a belt.

At the Annual Congress of the American diabetes Association, a new type of insulin was presented called U 300, which only has to be injected once a day. Once it enters the body it forms a kind of insulin bubble which liberates the amount of insulin required, according to what the body needs during the day. Recommended for those suffering from Diabetes Type 2, it reduces the damage caused to pancreatic cells as a result from the continual use of insulin, and maintains stable levels of sugar in the blood.

**Oncology**

Argentinian and Cuban scientists have developed the First therapeutic vaccine against lung cancer, which provokes the body’s immune system to attack cancerous cells, thereby extending life for advanced care patients for between 2 and 5 years. The vaccine is recommended for lung cancer patients with large size cancerous cells - in Mexico these are the most frequent cases. The development of the vaccine called Racotumomab took 18 years and was carried out by a bilateral public-private consortium, involving 90 scientists. The Project stakeholders were Centre for Molecular Immunity in La Habana, the Angel Roffo Oncology Institute, the Molecular Oncology Lab at the Quilmes University and the National Council for Scientific and Technical Research. Argentina is the first country in which the vaccine will become available. It has also been approved in Cuba and it has been licences in 25 countries in the Americas and in Asia. Currently COFEPRIS in association with UNAM and the IPN are in the process of carrying out security and efficacy studies.

**Pharmaceuticals**

The US Supreme Court ordered that pharmaceutical companies may pay generics manufacturers to delay sales of these medicines at lower costs for consumers. The dispute arose over a practice known as “pay for delay” that manufacturers use in order to delay the market launch of generic medicines. The high court considered the practice “unusual” by not “illegal”, and described it as “win-win” arrangements for both parties, but it is the consumer who pays the price.
The tax pathway

The possible impact of a tax reform in the 2014 financial year in the health sector

On 8 September the President’s Office presented the economic package for financial year 2014 and among the proposals contained in the fiscal reform initiative were the following aspects, which could affect companies in the healthcare sector:

a) As regards income tax, it proposes limiting the deduction of payments made, whether to Mexican residents or foreigners when these have not been taxed or have been taxed at less than 75% of the income tax in our country. The reasons given are that this is in line with recommendations contained in a OECD Project to fight “Base Erosion and Displacement of Profits” (BEPS). This project contains clauses to avoid that multinational companies artificially displace profits, which leads to them paying very low taxes and may even generate “non” double taxation (both in the country of residence and in the country where the income was obtained).

As a preventative measure, health sector companies can jointly analyze with their advisers the payments they carry out with others that might place them in the aforementioned circumstances, given the broad application that this measure may have. It is possible that multilateral companies in this sector might fall into this category and, if the measure is approved, they might have to make adjustments in their business model in order to mitigate the adverse effects that such costs might have on the calculation of their income tax obligations.

b) Among the deductions that apply in individual persons’ annual income tax declarations are: medical & dental services, hospital expenses as well as the purchasing of health insurance. Part of the tax reform proposes to reduce the amount of these concepts that can be deducted, to be equal to whichever is less: two minimum salaries at Mexico City rates ($47,274.80 pesos) or 10% of the person’s total income, including exemptions. With this measure individual people might affected since they will not be able to deduct the total amount paid out to companies or health institutions, bearing in mind the above limitations.

c) Regarding the Special Tax on Products and Services (equivalent to Excise Duty) and as a measure aimed at controlling obesity, it is proposed to charge 1 pesos per litre on high-sugar soft drinks, as well as concentrates, powders, syrups, flavourings, among others. In the explanation of the reasons for the above-mentioned reform proposal, the intention is to exclude milk from it, even when this contains vegetable fat, since although this product may contain added sugars its protein is considered to have a high nutritional value. And therefore its sale or import should not be associated with tax payments. However, there may be other products that contain both milk and added sugars that are sold by companies in the health sector that may not be exempted from the tax, bearing in mind the way in which the proposal was put forward.

In the tax reform initiative, there is no intention to start charging taxes on medicines, so that they will continue to be zero-rated.

It is important to pay attention and to monitor the evolution of the tax reform initiative for tax year 2014, taking into account its planned approval for 20th October, with the aim to plan and evaluate different strategies to mitigate or to optimize the fiscal impact, depending on your individual situation.
**mHealth insights:** Models of opportunity and sustainable reimbursement in the global mHealth (Mobile Health) market.

PwC and GSMA (Groupe Speciale Mobile Association) predict that “mHealth” earnings will increase to USD 23,000 million over the next 4 years.

The market opportunities for the “mHealth” sector are promising, although conflicts in financial incentives have generated uncertainty among interested parties. Reimbursement models depend to a large degree on the participation of patients and the gradual evolution of medical models that help both providers and payers to familiarise themselves with new ways of offering health services.

**Giving priority to the security of information:** How can healthcare organisations administer their information in the most secure way?

When we carried out our most recent global survey among CEOs, we were surprised to discover that only 24% of CEOs in the healthcare industry are worried about protecting their intellectual property and their clients’ information. This is noteworthy, since in the US alone there have been 571 security breaches that have affected at least 500 patients since September 2009. CIOs in the industry are less confident than CEOs, although even they sometimes underestimate the risks.

**Growth in the emerging markets:** The importance of operational functions in generating competitive advantages.

In view of the slow growth in developed markets, bio-pharmaceutical companies are expanding increasingly more towards the more promising emerging markets. However, it is common that companies plan this expansion without consulting operations in the supply chain, which can lead to a complex and inefficient network of production and distribution installations, that is poorly aligned and deficient in alliances.
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The Healthcare Practice of PwC Mexico launched “Megashift. A driver for the healthcare sector Doing Business in Mexico”, a unique publication focused on the Mexican business environment that helps identify the main opportunities and solutions of this important sector of the Mexican economy.

Through this publication: www.pwc.com/mx/doing-business-salud, readers can leverage the insights of PwC on important current matters, such as:

- The main challenges of the coverage of universal healthcare access.
- Service integrators for remote healthcare and medicine access through mobile devices.
- Regulatory issues in the production, registration and management of medicines and medical devices.
- Tax provisions for healthcare businesses.

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