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Selección Vida

VACCINES
and medicine insurance



VACCINES AND MEDICINE INSURANCE: AN INDISSOLUBLE RELATIONSHIP

The history of vaccines is inseparable from the evolution of health systems and, in particular, of insurance medicine. The two disciplines converge on a common point: the quest for disease prevention and the optimisation of resources.

Vaccines have been one of the greatest advances in public health. By exposing our body to a weakened or inactivated version of a pathogen, we prepare it to fight a real future infection, transforming our body into an impregnable fortress. Its history goes back many centuries. The Chinese, for example, practised variolisation, a technique that involved inoculating healthy people with material from smallpox pustules to confer immunity. However, it was the English physician Edward Jenner who, in the 18th century, laid

the foundations of modern vaccination by developing the vaccine against smallpox, a disease that plagued mankind for millennia.

Throughout the 19th and 20th centuries, vaccines were developed against a wide range of infectious diseases, including tetanus, diphtheria, polio, measles, mumps and rubella. Thanks to these vaccines, many diseases that were once fatal or caused permanent disabilities were brought under control.

AN UNDENIABLE IMPACT ON PUBLIC HEALTH

The evidence is compelling: vaccines have saved millions of lives and dramatically improved the quality of life for millions more. The impact on public health has been at three levels: There are many reasons:



ERADICATION OF SMALLPOX

In 1980, the World Health Organisation (WHO) officially declared smallpox eradicated, making it the first infectious disease to be eliminated from the planet thanks to a global vaccination campaign.



REDUCING CHILD MORTALITY

They have contributed to dramatic reductions in child mortality worldwide. In low- and middle-income countries, childhood vaccines save an estimated 3 million lives each year.



PREVENTION OF EPIDEMICS

They are essential to prevent major epidemics such as measles, polio and yellow fever.



BEYOND THE NUMBERS: A SOCIAL AND ECONOMIC IMPACT

The impact of vaccines transcends the sphere of individual and collective health, as vaccines have made it possible to:

- **Increase life expectancy.**
- **Strengthen economies:** they generate significant economic benefits by reducing

the costs associated with medical care, lost productivity and disability.

- **Fostering social development:** contributing to healthier and more equitable societies by enabling people to live longer and more productive lives.



CURRENT AND FUTURE CHALLENGES

The future of vaccines is promising. Advances in scientific research and technology are making it possible to develop safer, more effective and personalized vaccines. In addition, the COVID-19 pandemic has highlighted the importance of vaccination and has accelerated the development of new vaccines.

Despite their indisputable benefits, vaccines face significant challenges such as:

- **Vaccine resistance:** The emergence of anti-vaccine movements has led to a resurgence of vaccine-preventable diseases.
- **Inequality in access to vaccines:** Millions of people around the world still do not have access to vaccines, perpetuating health inequalities.
- **Development of new vaccines:** The emergence of new infectious diseases, such as COVID-19, raises the need to develop new vaccines quickly and efficiently.

To overcome these challenges, it is necessary to:

- **Invest in research and development of new vaccines:** Continuous research is essential to develop safer and more effective vaccines against new diseases and variants.
- **Strengthen immunization programs:** It is necessary to ensure that all children and adults have access to recommended vaccines.
- **Promote education on the importance of vaccination:** Education is key to combating misinformation and building trust in vaccines.
- **Public-private collaboration:** Collaboration between governments, international organizations, pharmaceutical companies and insurers is essential to ensure universal access to vaccines.

THE ROLE OF INSURANCE IN PROMOTING VACCINATION

Health insurance, both public and private, plays a key role in promoting vaccination:

- **Vaccination coverage:** Most health insurance covers the vaccines included in the recommended vaccination schedules, which facilitates access to immunization for those insured.
- **Incentive programs:** Some insurances (Eastern Europe) offer financial incentives or additional benefits to those insured who keep up to date with their vaccination schedules.
- **Information on their importance:** awareness of their benefits and the importance of keeping vaccination cards up to date.

In the area of prevention, vaccines have proven to be an effective tool in:

- **Reducing morbidity:** they are powerful in reducing the incidence of infectious diseases, which in turn reduces the need for more expensive and prolonged medical treatments. For example, vaccination has reduced polio cases by more than 99% worldwide.
- **Reducing mortality:** By preventing diseases, vaccines contribute to increasing life expectancy and improving the quality of life of populations. According to the WHO, vaccines prevent between 3.5 and 5 million deaths each year from preventable diseases, such as measles, diphtheria, tetanus and whooping cough.
- **Reduced hospitalizations:** Fewer cases of infectious diseases mean fewer hospitalizations, which translates into lower costs for health systems.

In addition, vaccination generates important economic benefits by:

- **Reducing medical costs:** By preventing diseases, vaccines reduce the costs



associated with medical care, such as hospitalizations, treatments and medications.

- **Increasing productivity:** Vaccinated people usually have fewer sick days, which translates into increased labor and economic productivity.
- **Benefiting society:** Vaccines contribute to strengthening the economy by reducing health care costs and increasing productivity.

ECONOMIC IMPACT OF PANDEMICS

Genetics is playing an increasingly important role in insurance medicine, as it allows insurance companies to better assess an individual’s risk of developing certain diseases in the future.

Pandemics, especially those preventable by vaccination, have a devastating economic impact globally. Beyond human losses, these health crises generate a domino effect that affects multiple sectors and compromises the economic growth of countries.

In Table 1 we have collected the direct cost generated by pandemics, where two fundamental aspects stand out: health expenses and productivity losses. In the analysis of health expenses, it must be taken into account that pandemics demand an exponential increase in health care expenses, from primary care to hospitalization in intensive care units. In addition, the shortage of essential medicines and personal protective equipment increases acquisition costs and the search for specific treatments and vaccines for each pandemic involves significant investments in research.

If we analyze productivity losses, illness and death of workers generate a significant decrease, while

absenteeism increases. Finally, the restrictions imposed to contain the spread of the disease can lead to the temporary or permanent closure of companies, generating significant economic losses.

Pandemics also have an indirect cost (Table 2). For example, travel restrictions and fear of disease drastically reduce tourism, affecting the hotel, transport and related services industries. Disruptions in supply chains and a decrease in global demand negatively impact international trade; and the closure of schools and universities affects the educational development of young people and generates additional costs for families.

On another note, pandemics can lead to an increase in anxiety and depression disorders, which in turn increases the costs of mental health care and can exacerbate existing inequalities, disproportionately affecting the most vulnerable groups.

TABLE 1. DIRECT COST OF PANDEMICS

HEALTH EXPENDITURES	PRODUCTIVITY LOSSES
Medical Care	Work Absenteeism
Medicines and Medical Equipment	Business Closures
Research and Development	

TABLE 2. INDIRECT COST OF PANDEMICS

IMPACT ON OTHER SECTORS	SOCIAL COSTS
Tourism	Mental health
Trade	Inequality
Education	

MANDATORY VACCINATION BY LAW

Compulsory vaccination by law is an issue that has generated intense debate throughout history and continues to be the subject of controversy today. This measure, which aims to protect public health, involves a legal requirement for people to be vaccinated against certain diseases.

Among the arguments in favour of mandatory vaccination is the fact that it is an essential tool for eradicating infectious diseases and protecting the most vulnerable populations, such as young children and the elderly. High vaccination coverage rates

create herd immunity, making it more difficult for diseases to spread. Compulsory vaccination ensures that a large percentage of the population is protected, thereby reducing the risk of epidemic outbreaks, and as one of the most cost-effective public



CONCLUSIONS

THE RELATIONSHIP between vaccines and insurance medicine is profound and mutually beneficial.

VACCINES ARE AN ESSENTIAL TOOL for preventing disease and improving public health, while health insurance plays a crucial role in promoting vaccination and ensuring access to immunisation..

IN AN INCREASINGLY GLOBALISED WORLD, vaccination is more important than ever. Collaboration among all stakeholders is essential to ensure that vaccines reach all those who need them and to build a healthier future for all.

health interventions, it reduces the costs associated with medical care, hospitalisations and lost productivity.

Opponents of compulsory vaccination argue that it infringes on the right to individual liberty and bodily autonomy. Furthermore, although vaccines are generally safe and effective, there is a small group of people who experience serious side effects. Finally, distrust of government institutions and pharmaceutical companies can lead to a rejection of vaccines and mandatory vaccination policies.

At the epicentre of the debate are two concepts that cannot be ignored: legal and ethical issues. Legally, governments have the right to impose restrictions on individual liberty in the interest of protecting public health. However, this power must be exercised proportionately and with respect for the fundamental rights of individuals.

From an ethical point of view, compulsory vaccination involves a balance between individual and collective interest. On the one hand, the right to health is a fundamental right that must be protected; on the other hand, the right to bodily autonomy and freedom of choice are also important rights.

COMPULSORY VACCINATION is a highly complex issue that requires careful analysis and informed debate. While it is a powerful tool to protect public health, it is critical to ensure that the right to individual liberty is respected and that the concerns of those who oppose vaccination are addressed.

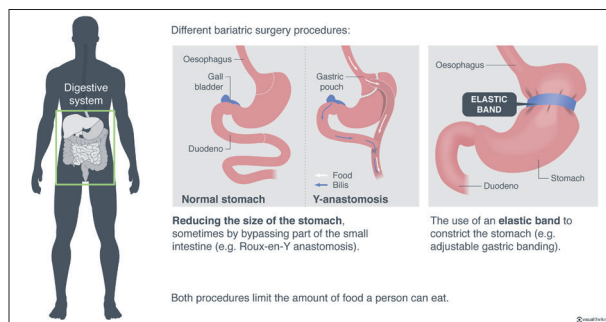
IMPROVEMENTS IN THE DAVINCI TOOL

We are pleased to inform you about the improvements made to our risk selection tool, Davinci (davinci.nacionalre.es) in recent months. Before the end of the year, the platform will also be available in French, and we have also included new pathologies such as bariatric surgery, the use of antiplatelet agents, human papillomavirus infection, among others.

We would like to highlight the most relevant automatic raters of the tool, which, together with its 19 sections (respiratory, cardiac, neurological diseases, etc.), allow the assessment of more than 1,000 pathologies.

Vida NR

Quick rater of the most common habits and disorders, which are usually detailed in the health declaration. We



would like to remind you of the advantage of the Vida NR automatic rater: since these are pathologies that multiply each other, the program will automatically apply a surcharge for the accumulation of these conditions.

Automatic cancer rater

With this rater we have sought to develop a simple tool that allows for the rapid and intuitive assessment of neoplasias from a medical perspective adapted to insurance. Thanks to this automatic rater, more than 800 types of tumors can be assessed.

Automatic diabetes rater

To properly assess a candidate with diabetes, it is essential to consider various associated factors that should not be overlooked. Some of these factors can prevent the risk from being insurable, so they constitute the first section to be completed when using this rater.

Our solidarity with Valencia

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If anyone wishes to support this solidarity initiative by making a financial contribution, it is advisable to do so directly to Casa de Caridad through the following current accounts:

LA CAIXA ES47 2100 0736 00 2200612310

BANCO SABADELL ES75 0081 7352 43 0001057311

BIZUM CODE 33587

Thank you very much for your solidarity

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