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2025 HEALTH **DYNAMICS** AND DISEASE **MANAGEMENT**

in Latin America and the Caribbean

A Pan-American Life Insurance Group Guide

INTRODUCTION

Transformative Health Trends

The Latin American and Caribbean region has faced major challenges, including disruptions in routine health care and significant pressure on medical resources. Multiple factors, such as ineffective or limited health services, the COVID-19 pandemic, and economic fluctuations have aggravated the situation. At the same time, these factors have accelerated the adoption of innovations that are now redefining how diseases are prevented, diagnosed, and treated.

In this context, several key trends have emerged as drivers of change: artificial intelligence, robotics, super-specialization, and a focus on disease etiology. These trends not only reflect technological and medical advances, but also respond to specific challenges faced by Latin America and the Caribbean, such as rapid urbanization, an aging population, and structural inequalities in health care access.

In this report, medical super-specialization is defined as the continuing development and acquisition of increasingly specific and advanced knowledge and skills within a field of study or professional practice.

This report examines these trends, evaluating both their current impact and their potential to transform health in the region. It further analyzes how these trends are being implemented and how they could contribute to a more equitable, accessible, and sustainable health care system. At a time when preparation for future challenges is critical, understanding and leveraging these trends is more important than ever.



Behavioral Trends of Disease Groups:

For this analysis, diseases were classified into several groups, taking into account relevant global data¹ and trends observed by Pan-American Life (PALIG) in 2024 in comparison to previous years.



Most prevalent diseases: These are the diseases that occurred most often within a given population. They include respiratory, gastrointestinal, genitourinary, muscular, skeletal, and endocrine/nutritional/metabolic diseases.



Diseases with the biggest increase in cases: The diseases with the biggest increases were determined by comparing reported cases between 2023 and 2024. Notable conditions include infectious² and parasitic³, endocrine/nutritional, musculoskeletal, and skin diseases and mental illnesses.



Most expensive diseases: These are the diseases that represent the highest cost per patient. They include cancer (neoplasms) and musculoskeletal, cardiovascular, and gastrointestinal diseases, as well as accidents and poisonings.

Disease ranking by prevalence and cost

Prevalent diseases 2024	Diseases that increased in prevalence from 2023 to 2024	Highest cost per patient 2024
Respiratory system diseases	 Infectious and parasitic diseases 	1 Cancer (neoplasms)
2 Gastrointestinal diseases	2 Endocrine, nutritional, and metabolic diseases	 Musculoskeletal and connective tissue diseases
3 Genitourinary diseases	3 Mental illness	3 Circulatory system diseases
 Musculoskeletal and connective tissue diseases 	 Musculoskeletal and connective tissue diseases 	Accidents and poisonings
S Endocrine, nutritional, and metabolic diseases	Skin and subcutaneous tissue diseases	Gastrointestinal diseases

Table 1. Most common conditions in PALIG members in Latin America and the Caribbean in 2024. Source: PALIG claim data as of 2024. The PALIG member submitted at least one claim for this condition.

¹ Centers for Disease Control and Prevention (CDC), 2024, Fast Facts: Health and Economic Costs of Chronic Conditions

² Bloomberg. (December 23, 2024). Conozca las enfermedades infecciosas que experimentaron un aumento durante 2024 [Find Out Which Infectious Diseases Increased in 2024]. La República. https://www.larepublica.co/globoeconomia/el-resurgimiento-mundial-de-enfermedades-en-2024-muestra-una-amenaza-creciente-4028319

³ Pan American Health Organization. (December 10, 2024). PAHO highlights increase in dengue, Oropouche, and avian influenza cases in the Americas, and advises control measures. PAHO https://www.paho.org/en/news/10-12-2024-paho-highlights-increase-dengue-oropouche-and-avian-influenza-cases-americas-and

Analyzing this data reveals:



1 Instability: All disease groups showed fluctuations in behavior, either in the number of ill people or in the cost per patient. There is no evidence of stabilization or slowdown.



Trend toward higher risk: High-risk diseases are those that meet the criteria of high prevalence, rapid growth, and high cost per patient. The most prevalent diseases are those associated with high risk, high cost, and rapid growth. For these diseases, the number of people with a given diagnosis (prevalence) and the average cost per patient are both skyrocketing. Musculoskeletal and connective tissue diseases, as well as endocrine, nutritional, and metabolic diseases, are found in this category, reflecting a chronically ill population.



3 **Exposure to diseases:** Our region continues to be exposed to a combination of noncommunicable (traditionally known as chronic) diseases and communicable (infectious) diseases.

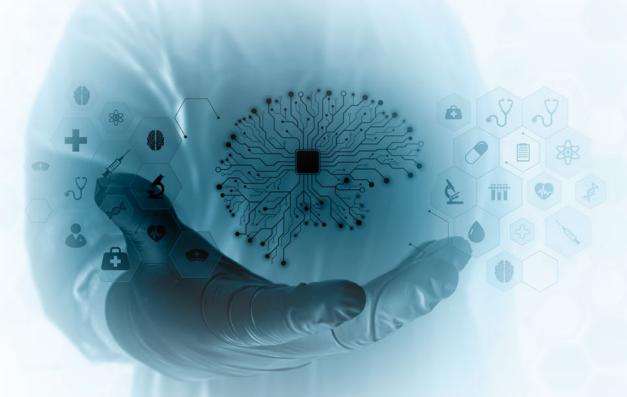
Key Trends

ARTIFICIAL INTELLIGENCE (AI)

Artificial intelligence (AI) is transforming health care services in multiple areas, from training and education to diagnosis and treatment.

It is anticipated that AI use will increase diagnostic precision, improve clinical decision-making effectiveness, reduce costs, and improve interaction between all parts of the health care system by optimizing the allocation of resources and developing personalized treatments.

In countries with overwhelmed health care systems, such as Brazil and Mexico, Al tools analyze large volumes of clinical data to predict disease outbreaks or identify at-risk patients, relieving the pressure on health professionals and improving patient outcomes.⁴



Use of AI in health care⁵:

From Hype to Evidence, From Speculation to Safe Bets



This chart illustrates the rapid expansion of Al use in healthcare, from early-stage innovations to cases supported by solid evidence (with peer-reviewed studies demonstrating its efficacy and safety), and from low-risk to high-risk use cases (where a mistake could compromise patients' lives). The chart, taken from The Medical Futurist, shows four groups:

- Speculative and risky (little evidence, high risk)
- 2 On the horizon (little evidence, low risk)
- 3 Handle with care (evidence-based, high risk)
- Safe bet (evidence-based, low risk)

The major challenges and opportunities of AI use in health care:

Uniformity of information: Early Al implementation is limited by the use of different nomenclatures for diseases, medical procedures, medications, and equipment, as there is no official standard among institutions and countries.

Security of information: The lack of uniform regulatory frameworks inhibits interoperability between health care systems. In a survey in Mexico and Colombia, 40% of patients expressed concerns about the privacy of their medical data, highlighting the need for clear policies.⁶ These standards for health data use must be defined before these technologies can be implemented.

Ability to identify errors: There is a need to develop models that can identify the scenarios in which Al can make errors. Al is a set of technologies based on statistical models.

These models learn patterns and relationships from large quantities of data to make predictions, classifications, or decisions. Timely identification and correction of errors without putting patients' health on the line is a key challenge. In the early phase, these tools should assist professionals, not replace them.

Model optimization: Normal and abnormal patterns must be correctly defined. Early AI use focuses on diagnostic processes, facilitating the identification of warning signs in both individual procedures and populational behaviors (e.g., Al-assisted endoscopies and epidemiological maps to detect seasonal diseases).

Data agility: The ability to generate and analyze information in real time is limited, and not all institutions have current data. Although AI tools are useful, their impact could be delayed by the availability of information.

Growth and projections

According to a report by Corporación Andina de Fomento (Andean Development Corporation, CAF), investment in AI for health in Central America, Mexico, and Colombia grew by 35% between 2021 and 2023, with Costa Rica leading the charge in integrating AI into primary care, having reached 15% coverage in its rural population.⁷ In Ecuador, the Ministry of Public Health is piloting an AI program to predict diabetic complications. Preliminary results show a 20% reduction in avoidable hospitalizations.

ROBOTICS & BIOELECTRONICS

From the automation of laboratory processes to the use of robots in minimally invasive surgeries, robotics is raising the bar for health care quality and efficiency. It promises to reduce human errors and expand access to complex procedures, including in remote areas, through telesurgery systems and portable robotic assistance. It has significant potential to reduce costs and improve health in the region.

Additionally, this technology represents development important reestablishing neurological and motor functions. Rehabilitation robots can deliver more precise, repetitive, and personalized therapies than conventional therapies, resulting in significant improvements in patient mobility, independence, and quality of life. For example, robotic exoskeletons help patients with spinal cord injuries recover the ability to walk, and transcranial magnetic stimulation (TMS) is used to improve motor and cognitive functions in patients who have had a stroke

Regional advances: In Mexico, Hospital Juárez de México performed more than 1,000 surgeries with the da Vinci system in 2023, cutting surgical complications by 15%.8 In Colombia, Hospital Universitario San Ignacio has integrated rehabilitation robots, which have improved postaccident patient mobility by 30%. In the Caribbean, more specifically Trinidad and Tobago, the use of robots in laboratories has increased its infectious disease testing capacity by 20% since 2022. 9

In Panama, Instituto Conmemorativo Gorgas implemented robots to process respiratory disease specimens, increasing its capacity by 35% during the pandemic. In Ecuador, Hospital Carlos Andrade Marín uses basic robotics to prioritize clinical trials, reducing wait times by 25%.10

Perspectives and challenges: Although the initial cost is high, robotics promises to reduce complications and recovery times. In Costa Rica, public-private partnerships have been facilitating the installation of robotic systems in public hospitals since 2021. This model could be replicated in other countries in the region.

Triton Market Research. (2024). Latin America Surgical Robotics Market. https://www.tritonmarketresearch.com/reports/latin-america-surgical-robotics-market

Communications of the ACM. (2024). Social Robots for Healthcare and Education. https://cacm.acm.org/latin-america-regional-special-section/social-robots-for-healthcare-and-education-in-latin-america/

SUPER-SPECIALIZATION

In this report, medical super-specialization is defined as the continuing development and acquisition of increasingly specific and advanced knowledge and skills within a field of study or professional practice

Medical **super-specialization** involves advanced training in diagnostics, treatments, techniques, and research to address diseases with greater precision and efficacy. This trend is attributable to the high and increasing prevalence of diseases and their complex management, as well as greater knowledge of human functioning and the development of new medications and forms of treatment, which have increased the demand for medical professionals with highly specialized knowledge.

In a region where chronic and emerging conditions like cancer and heart diseases are on the rise, physicians with subspecialities—specific areas that physicians specialize in after completing their general training—are essential to improving patient outcomes.

One of the factors facilitating super-specialization is the growing number of opportunities for professional medical training, with local programs that promote access to specialty and subspecialty levels. Moreover, the ongoing registration of health care trademarks for therapeutic products aims to improve access in our markets.



Regional evidence:

In **Colombia**, the number of oncologists has grown by 30% in the last five years, according to the Colombian Association of Hematology and Oncology (ACHO).

The Instituto de Cardiología de Bogotá performs over 600 angioplasties every year..

In **Mexico**, training of interventional cardiologists has increased by 15% since 2020 in response to the prevalence of cardiovascular diseases in the country, where they represent 19% of annual deaths.¹¹

In the **Caribbean**, more specifically the Dominican Republic, neurology programs have seen a 10% rise in specialists since 2021. These specialists focus on treating conditions like Alzheimer's, which affects a growing number of older adults.

In **Ecuador**, Hospital Metropolitano de Quito has implemented an advanced thoracic surgery program that performs over 300 procedures annually..

Challenges and opportunities:

Super-specialization increases the quality of care, but it is concentrated in cities like Mexico City, Bogotá, and San José, leaving rural areas neglected. Super-specialization should be analyzed from various perspectives, considering its impact on costs, its measured effectiveness, and its access by different populations.

One of the challenges in super-specialization management is adequate patient flow.

- 1 Treating low-complexity diseases at high levels of specialization results in increased costs.
- 2 Treating high-complexity diseases at low levels of specialization negatively impacts time and patients' quality of life.
- 3 Super-specializations make us more capable of treating complex diseases. However, this can lead to primary care models being neglected due to the decreased availability of professionals. It is essential that superspecialists interact with all health professionals to ensure that patient care is comprehensive.

LIFESTYLE

AS A PREVENTIVE AND THERAPEUTIC APPROACH

Instead of focusing only on pharmacological management to treat diseases, this trend prioritizes prevention and addressing underlying causes. Programs promoting dietary changes, exercise, and stress reduction are gaining ground, especially in response to high obesity rates and increasing noncommunicable disease prevalence in the region.



METABOLISM

AS A PREVENTIVE AND THERAPEUTIC APPROACH

Metabolism plays an important role in our health. Alterations in metabolism lead to the development of chronic diseases. Suboptimal metabolism affects how we convert the energy we consume into energy that can be used by the human body. Metabolism optimization has emerged as a key strategy to maintain well-being, address diverse pathologies, and promote remission.

The reality is that all current diseases can be significantly improved through changes in these areas.

Although there are several initiatives in the region, the American College of Lifestyle Medicine has taken the lead in both training professionals in the design of protocols for the management of various diseases.

"Lifestyle medicine is a medical specialty that uses therapeutic lifestyle interventions as a primary modality to treat chronic conditions including but not limited to cardiovascular diseases, type 2 diabetes, and obesity. Lifestyle medicine certified clinicians are trained to apply evidence-based, whole-person, prescriptive lifestyle change to treat and, when used intensively, often reverse such conditions. Applying the six pillars of lifestyle medicine—a whole-food, plant-predominant eating pattern, physical activity, restorative sleep, stress management, avoidance of risky substances and positive social connections—also provides effective prevention for these conditions".



THE 6 PILLARS OF LIFESTYLE MEDICINE¹²

Lifestyle medicine places special emphasis on modifying behaviors that are the root cause of many prevalent pathologies, such as cardiovascular disease, type 2 diabetes, obesity, musculoskeletal disorders, and some types of cancer. These are the fundamental pillars:

Whole Food, Predominantly Plant-Based Eating Pattern:

Extensive scientific evidence supports whole-food (unprocessed or minimally processed), plant-based eating for the prevention and treatment of chronic diseases. In intensive and therapeutic doses, along with other lifestyle adjustments, it can lead to the remission of diabetes and high blood pressure.

2 Physical Activity:

Staying active boosts metabolism. Recommendations are to engage in 150 to 300 minutes of moderate-intensity physical activity per week, such as walking or participating in an online exercise class from the comfort of home.

3 Restorative Sleep:

A lack of sleep increases ghrelin levels, the hormone that signals hunger to the brain, and reduces leptin levels, the hormone that suppresses appetite. This imbalance leads to increased appetite and a tendency to crave foods high in sugar, fat, and salt.







¹² American College of Lifestyle Medicine. (2025). What is lifestyle medicine?. Retrieved from https://www.lifestylemedicine.org

SIXPILLARS





With high stress levels, our cortisol levels increase, leading many people to seek comfort in highly processed, calorie-dense foods. Additionally, managing stress before meals is important for optimal digestion and nutrient utilization.



5 Positive Social Connections:

Social influences also significantly impact eating patterns. When family members and social circles align with healthy nutritional goals, individuals find it easier to adhere to their eating plans.



6 Avoid Risky Substances:

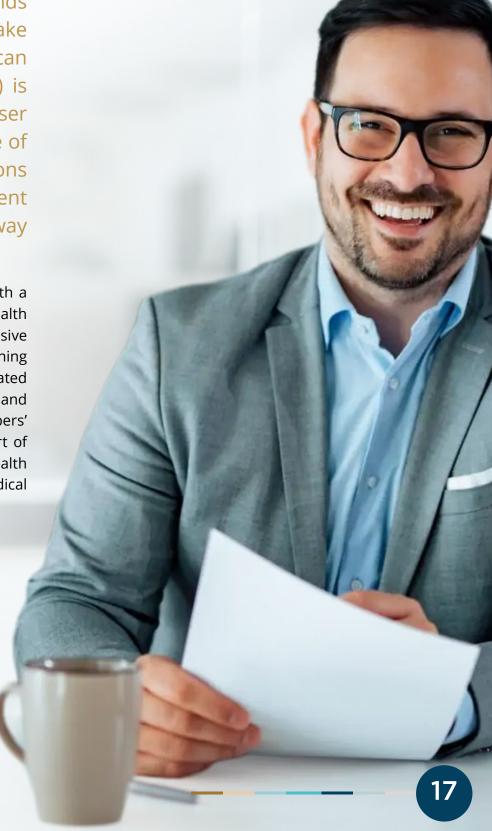
The consumption of risky substances, such as alcohol, is linked to poor eating habits. Drinking alcohol before a meal increases the caloric intake of what we eat. Excessive alcohol consumption is related to poor adherence to healthy eating guidelines.

THE ROLE OF PAN-AMERICAN LIFE

(PALIG)

In a world where health trends transform how we live and take care of ourselves, Pan-American Life Insurance Group (PALIG) is taking concrete steps to be closer to its members at every stage of their care, by offering solutions that not only respond to current challenges but also pave the way for a healthier future.

PALIG is responding to these trends with a clear commitment to strengthening health care with a global and comprehensive scope. This approach involves designing and implementing different integrated and interconnected health initiatives and programs that aim to improve members' health and quality of life. As a core part of this strategy, PALIG offers support for health care and efficient management of medical expenses.



in Latin America and the Caribbean





Before illness: For PALIG, it is a fact that knowledge is the foundation for healthy living. That is why it has prioritized accompanying its members at every stage, even before they are sick. As part of this effort, PALIG offers its customers one of the most comprehensive health education libraries, the Wellness Hub, offering reliable, up-to-date information on topics that range from tips on staying healthy and managing chronic conditions to mental health care. It's not just about providing information—it's about empowering people to make informed decisions and become the drivers of their well-being.

During illness: When members have symptoms of an illness or an established diagnosis, PALIG accompanies them through assistance services (an additional policy benefit) that provide immediate support at key moments, and telehealth services that bring doctors' experience directly into members' homes. This ensures continuous follow-up, especially in urban and rural communities where care access can be a challenge. Home care also reflects PALIG's commitment to helping people by offering them personalized care in the comfort of their own homes. This service speaks to the company's dedication to humanizing health care, bringing well-being and tranquility directly to those who need it most.

The use and strengthening of primary care are essential, as it makes it possible to address diseases comprehensively before they progress, helping reduce complications and avoid high health care costs. That is why PALIG offers a constantly expanding list of providers (PALIGMED) and outpatient care centers. When needed, PALIGMED also offers different specialists and specialty care centers to support patients on the best treatment path based on their medical condition. Its provider network includes specialists who are accredited in their respective specialties.

For some diseases like cancer, even when there are no obvious symptoms, early diagnosis can help avoid more invasive treatments and support a shorter, more successful treatment path, resulting in better quality of life. For this reason, PALIG has strived to be involved in campaigns that raise awareness on early detection and care and facilitate access to specialty exams that anticipate diagnoses, guiding patients when the findings suggest disease.

Managing chronic disease: PALIG's approach goes beyond traditional health care. Programs like BWell don't just treat diseases, but also focus on developing important lifestyle changes that empower members to take control of their well-being. Internal studies have shown inspiring results: participants who adopted healthier habits, such as increased physical activity and a balanced diet, reported considerable improvements in their physical and emotional health, as well as a significant reduction in the average cost for managing their diagnosis.

Through innovative services like telehealth and home care, transformative programs like BWell, early detection of diseases, and a firm commitment to health education, PALIG is not only adapting to change but also paving the way for a more accessible, preventive, and humane health care model. PALIG's goal is clear: to be present at every step of its members' health care journeys by offering solutions that don't just solve immediate needs, but also inspire a sustainable, healthy future for Latin America and the Caribbean.



LEARN MORE

PALIGMED Provider Network:

Search the provider network here: paligmed.com

BWell:

Comprehensive disease management program for chronic diseases like diabetes, hypertension, gastrointestinal diseases, and joint, neck, and back diseases.

Check program availability in your country at bwellinfo@palig.com

Healthier Life, Longer Life: This breast cancer early detection campaign features educational webinars led by medical specialists in the region, aiming to provide members with accurate, up-to-date information to increase the early diagnosis of this disease and enhance the chances of successful treatment. It offers special mammography coverage for women at risk through an additional benefit without affecting the policy's traditional benefits. It also provides dedicated webinars to the insureds. More information at myhealth@palig.com

Wellness Hub::

https://palig.com/en/us/wellness-hub





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DESCARGO DE RESPONSABILIDAD

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ABOUT PALIG

Pan-American Life Insurance Group (PALIG), a leading provider of life, accident and health insurance throughout the Americas that has been delivering trusted financial services since 1911. The New Orleans-based Group is comprised of more than twenty-member companies, employs more than 2,100 worldwide and offers top-rated individual and/or group life, accident and health insurance, employee benefits and financial services in 49 states, the District of Columbia (DC), Puerto Rico, the U.S. Virgin Islands, and throughout Latin America and the Caribbean. The Group has branches and affiliates in Costa Rica, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, and 13 Caribbean markets, including Barbados, Cayman Islands, Curacao and Trinidad and Tobago

For more information, visit the Pan-American Life website at palig.com, like us on Facebook **@PanAmericanLife**, follow us on X (formerly Twitter) **@PanAmericanLife** and connect with us on LinkedIn at **Pan-American Life Insurance Group**.



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