# Psoriatic Disease Response Index:

## Americas

IFPA
GLOBAL LEADER IN FIGHTING PSORIATIC DISEASE

# Content

## Authors

Nicholas Norton, Neha Singh, Kirk Geale, Elisa Martini

## Acknowledgements

**Stakeholder interviewees**
**Argentina:** Gabriel Davio, Dr. Cristina M. Echeverria, Dr. Veronica Savio, Dr. Enrique Soriano; **Canada:** Dr. Ron Vender, Sandra Walsh, Reena Ruparelia, Dr. Vinod Chandran, Dr. David Adam, Dr. Stephanie Nantes. **Colombia:** Guillermo Gutierrez, Dr. Estefania Velarde, Alejandra Ospina, Dr. Manuel Dario Franco, Dr. Diana Gil, Dr. Myriam Jasmin Vargas; **Panama:** Dr. Reynaldo Arosemena, Jonathan Franco, Karen Ortega, Dr. Antonio Cachafeiro, Dr. Jose Manuel Rios; **USA:** Dr. Tina Bhutani, Rick Seiden, Dr. Elaine Husni, Dr. Rebecca Haberman

**Quantify Research contributors**
Jenny Wiberg, Rupanshi Grover, Patrik Sandin

**Local IFPA member organization heads**
Silvia Fernandez Barrio, Helen Crawford, Guillermo Gutierrez, Monica Chapman, Leah McCormick Howard

Frida Dunger

Frida Dunger
Executive Director
IFPA

K.

Kirk Geale
CEO
Quantify Research

# Preface

Ten years ago, world leaders recognized psoriatic disease as a serious non-communicable disease (NCD) by adopting resolution 67.9 on psoriasis at the 67th World Health Assembly. This fundamental “win” for the psoriatic disease community shows that it is possible to achieve an inclusive NCD agenda at the highest level of health decision-making.

As the fourth United Nations High-level meeting on Noncommunicable Diseases approaches, reports on the progress towards NCD targets show that commitments to reducing the burden of these diseases need to be followed by concrete actions. Societal and economic inequities mirror themselves in health inequities, in a downwards spiral where individuals with chronic diseases risk to be left behind.

The fourth High-level Meeting on NCDs will address health equity. This is a priority for the millions of people living with psoriatic disease in the Americas: the continent is vast, and home to more than one billion people. There are notable variations between each country’s population, estimated prevalence of psoriatic disease and treatment accessibility.

This Index, the third after the Europe and Western-Pacific editions, gives us a glimpse into these inequalities. By following to which extend the recommendations detailed in the 2016 WHO Global Report on Psoriasis are implemented in five countries – Argentina, Canada, Colombia, Panama, United States – it is possible to spot how these inequalities affect the everyday life of people living with a serious, life-long NCD.

Inequalities are apparent, but progress in certain indicators show that commitments made by WHO member states when adopting the resolution on psoriasis can make a difference, and a better life for people with psoriatic disease in the Americas is possible.

*Ingvar Ágúst Ingvarsson*
*President, IFPA*

*Frida Dunger*
*Executive Director, IFPA*

# Executive summary

## Background

Psoriatic disease is a chronic disease that affects the skin (psoriasis [PsO]), joints (psoriatic arthritis [PsA]), and sometimes other organs of the body (1). The region of the Americas, defined by the World Health Organization (WHO), consists of approximately 1.03 billion people across 35 countries (2). As per the Global Burden of Disease (GBD) 2019 study, North America, psoriasis prevalence was estimated at 460,851 cases (95% UI: 445,254–477,734) in Canada and 4,231,906 cases (95% UI: 4,106,377–4,360,602) in the USA. In South America, Argentina reported 436,613 cases (95% UI: 419,337–453,631), while in Central Latin America, Colombia and Panama recorded 59,687 (95% UI: 57,551–62,070) and 4,879 (95% UI: 4,694–5,065) cases, respectively, as reported in the GBD 2019 study (3). Individuals living with psoriatic disease often experience significant economic and quality-of-life (QoL) burden throughout their lifetimes.

In 2016, the WHO published the Global Report on Psoriasis (4), intended to “empower policy-makers with practical solutions to improve the health care and social inclusion of people living with psoriasis in their populations.” Based on their recommendations, IFPA developed an index report for Europe in 2020 to measure health systems’ responses to psoriatic disease on an international scale in five countries (5). In concert with the European report, an index report for the Western Pacific Region (WPR) was developed to measure the progress of psoriatic disease care in the following five countries: Australia, China, Japan, the Philippines and Singapore (6). Now, IFPA has decided to develop an index report covering North and South America, including the following sample countries: Argentina, Canada, Colombia, Panama and the USA.

## Methods

A literature review and a series of interviews in each country were conducted to collect evidence for a set of 10 index indicators related to the recommendations listed in the WHO Global Report on Psoriasis. The literature review included published records, grey literature and local materials provided by IFPA member organizations in each of the chosen countries. The interviewers followed a discussion guide to keep data collection consistent across interviews. Criteria for each indicator were developed during the protocol phase, using a pragmatic scale of 1, 2 or 3.

## Results

Public awareness campaigns served as an indicator of the general public's level of awareness. Evidence of ongoing outreach campaigns was found in all five countries, organized by private and/or public entities to educate the public and build a support community for individuals with psoriatic disease. Some campaigns were diverse, utilizing multiple outreach channels. However, stigma and discrimination remained concerns for some affected individuals in the selected countries. Stakeholders in four countries reported cases of direct discrimination, including challenges in securing employment, finding a partner, or accessing public resources.

### Table 1: Summary of indicator scores

| Indicators | Argentina | Canada | Colombia | Panama | USA |
|---|---|---|---|---|---|
| Awareness campaigns | 3 | 3 | 3 | 3 | 3 |
| Perceived discrimination | 1 | 2 | 1 | 1 | 2 |
| Training for GPs | NA* | 3 | 2 | 2 | 3 |
| Treatment guidelines | 3 | 2 | 3 | 2 | 3 |
| Support for adherence | 2 | 2 | 2 | 2 | 2 |
| Wellbeing assessments | 3 | 2 | 2 | 1 | 2 |
| Time to diagnosis | 3 | 2 | 1 | 2 | 1 |
| Access to medicines | 2 | 2 | 2 | 2 | 2 |
| Specialist care access | 2 | 1 | 2 | 1 | 2 |
| Economic costs | 3 | 2 | 3 | 2 | 1 |

**Key:** GPs = General practitioners, NA = Not applicable, USA = United States of America; Note: *As Argentinian patients typically visit a specialist directly, a score for psoriatic disease training in GPs in Argentina was determined not to be relevant.

Records and interviews revealed that training programs and resources were available in most countries to help general practitioners (GPs) diagnose, treat, and/or refer people living with psoriatic disease. However, in some countries, referral systems were either not fully functional or not well integrated into the healthcare structure. Despite these training efforts, misdiagnosis and delayed diagnoses remain challenges for people living with psoriatic disease. All five countries utilize current and regularly updated treatment guidelines for PsO and PsA. While some clinicians follow up-to-date, country-specific guidelines, others adapt international or foreign guidelines to their local contexts, sometimes encountering challenges with applicability.

The availability of tools and support for patients' medication adherence is similar across the selected countries. Stakeholders reported that the countries offered disease-specific medication support programs to promote adherence. More tools and resources are needed to enhance disease-specific support and improve long-term adherence. Additionally, patient well-being is generally assessed in most countries through DLQI evaluations and mental and physical health checks. However, challenges remain for both patients and clinicians in effectively addressing the mental health aspects of the disease.

> **"While all countries offer most or all topical, conventional systemic, and older biologic treatments for purchase, several obstacles limit access. These include high costs, regional availability of supplies or prescribing specialists, long wait times, and patient hesitancy toward treatment.**

The time between the onset of symptoms and the diagnosis of psoriatic disease is excessively long in most of the selected countries, impacting disease progression, morbidity, and long-term health outcomes. PsA diagnoses, in particular, tend to be significantly delayed and are sometimes misdiagnosed due to a lack of information. Access to medications and the barriers associated with it vary across countries. While all countries offer most or all topical, conventional systemic, and older biologic treatments for purchase, several obstacles limit access. These include high costs, regional availability of supplies or prescribing specialists, long wait times, and patient hesitancy toward treatment. The availability of specialists differs by country and even within regions, with many stakeholders highlighting disparities in specialist care access between urban and rural areas. Additionally, challenges such as long wait times, high costs, and reluctance to seek mental healthcare services persist.

The economic costs of psoriatic disease vary significantly across countries. System-wide spending data were available for only two countries, underscoring a lack of research on the economic burden of psoriatic disease in most countries. As a result, the available evidence primarily focuses on the financial impact on individuals living with the disease. In countries with strong public healthcare systems and substantial subsidies, the financial burden is minimal. However, in countries with less comprehensive public healthcare, people living with the disease often face high upfront costs, even when the healthcare system is well developed. Privatized healthcare typically imposes a greater financial burden on individuals with the disease.

## Conclusions

The findings of this report lead to the following prioritized recommendations:

- Pursue public awareness campaigns to reduce stigmatization in the general public
- Reduce the patient/provider stigma associated with mental health care
- Promote accessibility and equality of care for those who live in remote areas
- Reduce out-of-pocket costs, in part by advancing universal health coverage
- Increase the availability of specialists, or train GPs to support with care
- Reduce waiting times for specialists
- Raise awareness regarding the early diagnosis of psoriasis and the prevention of disability

# Rationale & objectives

## Psoriatic Disease

Psoriatic disease is a chronic disease that affects the skin (psoriasis [PsO]), joints (psoriatic arthritis [PsA]), and sometimes other organs of the body (1). Skin symptoms of psoriatic disease typically present as scaly, red, and itchy plaques, while joint symptoms include pain, swelling, and stiffness. Although the exact cause remains unclear, it is thought to result from a combination of genetic and environmental factors that trigger a dysregulated immune response, leading to chronic inflammation primarily affecting the skin and joints. Given its systemic nature, psoriatic disease is also associated with comorbidities such as cardiovascular disease (CVD), metabolic syndrome, obesity, inflammatory bowel disease, and mental health disorders (7-10).

According to estimates from the Global Burden of Disease (GBD), there were 40,805,386 (95% uncertainty interval [UI]: 39,421,384–42,076,746) prevalent cases of PsO worldwide in 2019. The prevalence of PsO in the Americas varies by country. In high-income North America, the estimated prevalence of PsO cases was 460,851 (95% UI: 445,254–477,734) in Canada and 4,231,906 (95% UI: 4,106,377–4,360,602) in the United States of America (USA). In Southern Latin America, Argentina reported 436,613 (95% UI: 419,337–453,631) cases, while in Central Latin America, Colombia and Panama had 59,687 (95% UI: 57,551–62,070) and 4,879 (95% UI: 4,694–5,065) cases, respectively, as reported in the GBD 2019 study (3). A recent systematic review-metanalysis reported the global prevalence of PsA as 112 per 100,000 adults. In North America, estimates range from 64 per 100,000 (population-based studies) to 147 per 100,000 (health administrative studies), while in South America, health administrative studies report a prevalence of 17 per 100,000 (11).

Individuals living with psoriatic disease often experience significant economic and quality-of-life (QoL) burden throughout their lifetimes. Estimates of the impact of PsO and PsA on peoples' QoL vary by country. A global online survey of 4,978 respondents across 20 countries, including Canada and the USA, found that 48% reported a very large to extremely large impact of psoriatic disease on their QoL, as indicated by a Dermatology Life Quality Index (DLQI) score of 11–30. In contrast, only 13% reported no impact (DLQI 0–1). Additionally, the majority of people living with psoriatic disease experienced stigma and discrimination (82%) and reported negative effects on their relationships (81%) (12). In Colombia, hospital-based studies highlight the significant QoL burden of PsO. A tertiary hospital in Bogotá reported that among individuals with moderate to severe PsO, 36–37% had a significantly affected QoL (DLQI 11–20), while up to 27% experienced extreme impairment (DLQI 21–30). Another study at a university hospital found that only 15.4% reported no impact, while 25–26.9% had mild to moderate impairment and 32.7% had severe to very severe QoL effects (13).

> “ Individuals living with psoriatic disease often experience significant economic and quality-of-life (QoL) burden throughout their lifetimes.

## Addressing the needless suffering of people living with Psoriatic Disease

In 2014, efforts from the international patient community led to the adoption of the Resolution on Psoriasis by the World Health Assembly (WHA 67.9) (14). The Resolution underscores that "too many people in the world suffer needlessly from psoriasis" and mandates the publication of a report on the public health impact of psoriasis." In 2016, the World Health Organization (WHO) published the Global Report on Psoriasis (4), intended to "empower policy-makers with practical solutions to improve the health care and social inclusion of people living with psoriasis in their populations." The report compiled a variety of recommendations for different types of stakeholders including governments and policymakers, health systems and health professionals, and patients' organizations and civil society.

> **This Americas Index Report included a sample of countries (Argentina, Canada, Colombia, Panama, USA), based on the presence of a local IFPA member association and diversity in geography, culture, and economics.**

## Index Report for the Americas

The region of the Americas, defined by the WHO, consists of approximately 1.03 billion people across 35 countries (2). This geography consists of a diverse mix of socioeconomic, cultural, geographic and environmental conditions that are evolving over time and influence how health systems respond to different health challenges. As a consequence, the wellbeing of many individuals with psoriatic disease depends on the Americas' progress towards the goals listed in the WHO Global Report on Psoriasis.

The Psoriatic Disease Response Index – Americas (Americas Index Report) aims to measure health system responsiveness to the recommendations detailed in the WHO Global Report on Psoriasis. Thus, indicators were developed with the goal of measuring progress towards implementing the recommendations listed in the WHO Global Report on Psoriasis. Ten indicators across five categories - public awareness, provider awareness, patient engagement, health systems, and enabling environment – were selected for assessing the progress of psoriatic disease care in the Americas. They were chosen for this report based on relevance for people living with psoriatic disease, the likelihood of identifying data and the ease with which the associated recommendations can be implemented.

This Americas Index Report included a sample of countries (Argentina, Canada, Colombia, Panama, USA), based on the presence of a local IFPA member association and diversity in geography, culture, and economics. The evidence base of this report was collected from a mix of published literature and interviews with local stakeholders. In line with the WPR Index Report published in 2023 (6), the Americas Index Report includes data and stories from people with psoriatic disease.

### Americas countries included in study

**Figure 1:** Map of the Americas, with sample countries highlighted

The purpose of the Americas Index Report was to provide a summary of the region's progress towards implementing the recommendations listed in the WHO Global Report on Psoriasis and encourage further measures to support the health and wellbeing of people with psoriatic disease in this region.

**10 indicators of interest**

- Public awareness campaigns
- Discrimination and stigmatization
- Training for general practioners
- Treatment guidelines
- Support for medication adherence
- Patient-centric investigation of wellbeing
- Time to diagnosis
- Access to medicines
- Access to specialist
- Direct and indirect costs to the economy

# Methods

In order to collect data for the index scores, a targeted literature review and a series of stakeholder interviews were conducted. The details including scope and approach for each review method were pre-specified in a study protocol that was followed throughout the course of the work.

The literature review collected records that met the eligibility criteria from bibliographic databases, ad-hoc google searches for grey literature and materials sent in by local IFPA member organizations. Those records where then screened in two steps for relevancy to one or more of the chosen indicators, and then included for extraction. Relevant data for each indicator was then extracted into a grid for the data synthesis process.

In tandem with the literature review, a series of stakeholder interviews were conducted to provide context and a variety of perspectives in the chosen countries. Six interviews were planned in each of the five countries, including the following stakeholders: dermatologists, rheumatologists, academic researchers, general practitioners (GPs), nurses and people living with psoriatic disease. The interviews followed a discussion guide, responses were recorded and collected in a grid for the data synthesis process.

Index scoring followed a simple scoring approach of 1, 2 or 3, based on a set of pre-defined criteria to represent progress towards the recommendations from the WHO Global Report on Psoriasis.

The methods and scoring criteria are described in more detail in Appendix B.

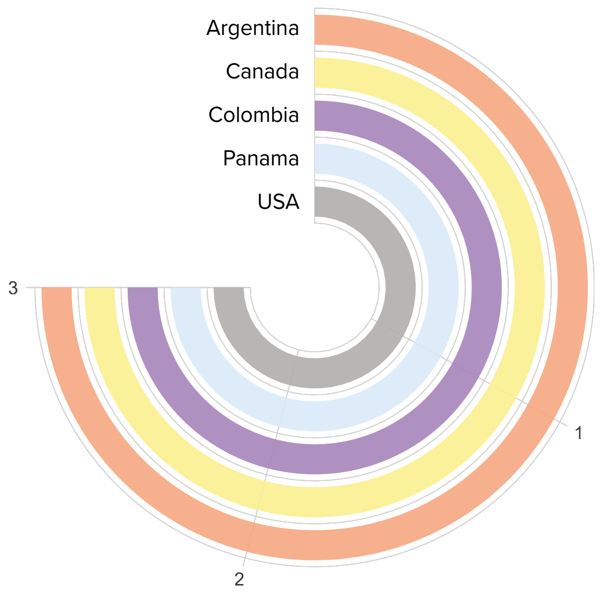
# Public Awareness Campaigns

Public awareness of a disease - including its existence, symptoms, and impact - plays a critical role in shaping how society views those affected by it. This awareness directly influences individuals' experiences, as well as the allocation of resources, the development of government initiatives, and access to necessary healthcare services. There is a lack of awareness for psoriatic disease in the general population, which varies between countries (15, 16).

> “There is a lack of awareness for psoriatic disease in the general population, which varies between countries

Across the Americas, as in other regions, local psoriatic disease patient and healthcare organizations actively organize events and initiatives to raise awareness among people living with the disease, care providers, and the general public. The largest of these campaigns aim to connect organizations both locally and internationally, fostering coordinated advocacy efforts. A key example is IFPA’s World Psoriasis Day (October 29th), which is promoted worldwide to increase public awareness and advocate for greater support for individuals living with psoriatic disease.

## Country progress



## Argentina 3

In Argentina, Asociación Civil para el Enfermo de Psoriasis (AEPSO) regularly organizes awareness campaigns targeting the public, healthcare providers, and individuals living with psoriatic disease. These campaigns take place nationwide, with active involvement from medical professionals. Every year on October 29th, World Psoriasis Day is observed, promoted by IFPA, to raise awareness and offer support to those living with the disease. Additionally, each year, AEPSO launches nationwide campaigns focused on the detection of PsO and PsA, in collaboration with the Argentinian Rheumatology Association and PSOARSO. These campaigns specifically target people living with psoriatic disease—both those with a diagnosis and those who may still be undiagnosed. One key focus is identifying individuals who have received a diagnosis in the past but have since lost contact with the healthcare system, ensuring they reconnect with the support and care they need.

## Canada 3

Numerous public awareness campaigns are being hosted by different organizations around Canada. In 2021, the Canadian Association of Psoriasis Patients (CAPP) launched the "PsoIntimate" campaign to address the challenges of living with PsO, particularly in relation to intimacy (17). Additionally, the Canadian

Psoriasis Network (CPN) hosts events for World Psoriasis Day, often in collaboration with dermatology professionals. Currently, Pso Canada (a consolidation of the CPN and CAPP) continues to promote awareness through campaigns. Through these initiatives, people living with psoriatic disease have shared their personal stories, raising awareness.

> “I have seen outreach campaigns on social media, including some where patients are speaking out about their experiences in living with the disease
>
> *GP, Canada*

## Colombia

3

In Colombia, FUNDAPSO recently launched the "Psoriasis y Familia" campaign in conjunction with World Psoriasis Day, continuing its efforts to raise awareness about PsO (18). Over the years, FUNDAPSO has consistently organized public awareness campaigns using various channels, including printed materials like leaflets and newspapers, as well as social media platforms such as TikTok and Instagram. They also support educational efforts by providing information to people living with the disease and to dermatologists during congresses. The organization's Instagram page is regularly updated with new information to raise awareness, and some campaigns have been ongoing for nine years.

## Panama

3

In Panama, the Psoriasis Foundation (Fundación Psoriasis de Panamá), a non-governmental organization, is actively running regular campaigns to raise public awareness and identify individuals living with PsO, aiming for earlier diagnosis and treatment. With support from pharmaceutical companies and other organizations, the foundation strives to improve the lives of those affected by the disease. One of its key initiatives is the "Psoriasis Detection Campaign," which works to address the challenge of delayed diagnosis, thus improving the likelihood that people living with the disease receive timely and effective care. The foundation also organizes monthly meetings with people living with the disease, addressing both medical and psychological needs. The Panamanian Dermatology Association offers support at no charge, and the foundation benefits from sponsorships from pharmaceutical companies, banks, and other organizations.

## USA

3

According to published evidence and interviews, there are numerous awareness campaigns aimed at raising public knowledge of psoriatic disease, sponsored by pharmaceutical companies, medical associations, and patient advocacy organizations like the National Psoriasis Foundation (NPF). Recurring public awareness campaigns tied to World Psoriasis Day often use social media for outreach. National campaigns like "Walk to Cure Psoriasis" and initiatives by organizations like the NPF continue to drive awareness and fundraising. Most of those interviewed felt that direct-to-consumer advertising (DTCA) had an overall positive impact on awareness about the condition in the general public. The use of DTCA was still considered controversial by those interviewed and some argued that it has led to concerns such as the over-prescription of costly systemic treatments.

### Recommendations for best practice from the WHO Global Report on Psoriasis

1. Patients’ organizations must continue advocating for the rights of individuals suffering from psoriasis. They should be involved in raising awareness of psoriasis among the population in collaboration with governments and policymakers.
2. Society, not psoriasis, causes the exclusion and discrimination faced by people with this disease. This situation can change through campaigns to raise awareness of psoriasis among the population and by condemning discrimination of patients who suffer from it.
3. Patients’ organizations have a responsibility to encourage the formation of patients’ associations where currently none exists.

*Source: WHO 2016 Global report on psoriasis (4)*

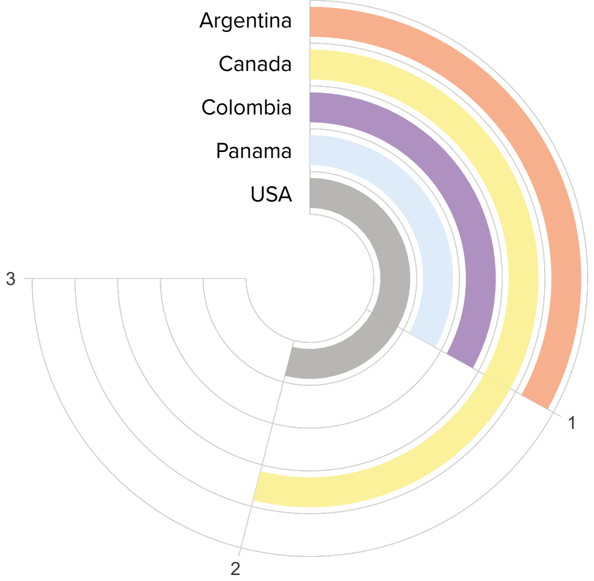
# Discrimination & Stigmatization

Stigmatization involves negative perceptions toward individuals with psoriatic disease, while discrimination refers to unjust actions taken against them, often rooted in stigma. Both have serious consequences, as many individuals with psoriatic disease experience some form of stigmatization or discrimination. For those with skin symptoms, this is often due to visible lesions, while individuals with joint involvement may be affected by joint deformities. Misconceptions, including fears of contagion, can lead to social exclusion and negative reactions, making it difficult for affected individuals to secure or retain jobs, especially in customer-facing roles, and impacting social and romantic relationships. Research highlights that moderate to severe PsO often results in extended work absences, affecting job stability and financial security. Evidence consistently shows that PsO negatively affects self-image, self-esteem, and overall well-being, impacting multiple aspects of life, including psychological, physical, social, sexual, and occupational health (20-22).

> “Evidence consistently shows that PsO negatively affects self-image, self-esteem, and overall well-being, impacting multiple aspects of life.

Recognizing the psychological and socioeconomic impact of psoriatic disease stigma is crucial. Increasing public awareness through education and shared experiences can help reduce discrimination against those affected.

## Country progress



## Argentina 1

Stigma and prejudice against individuals with psoriatic disease persist in Argentina, though awareness campaigns have led to improvements. A 2023 survey of 876 people with PsO found that 34.2% reported experiencing stigma or bullying (23). Similarly, a 2022 survey of people living with psoriatic disease (n=839) revealed that 17.3% faced workplace discrimination due to their condition, while 18.2% felt disadvantaged in job promotions (24). Interviews also indicated that many people living with the disease avoid the beach in summer, prefer to cover their skin, and face challenges with intimacy. Instances of discrimination were reported in various settings, including public transportation, workplaces, pools, and even medical consultations.

## Canada 2

Evidence of stigmatization and discrimination against individuals with psoriatic disease in Canada have been documented through stakeholder interviews and literature reviews. A 2021 report, Working it Out: A Report on the Experiences of People with Psoriatic Disease in the Canadian Workplace, found that 20% of respondents felt treated differently by supervisors, clients, or coworkers, and another 20% felt unsupported by their supervisors. Nearly 30% reported experiencing insensitive remarks about their condition (25). A national survey of 507 Canadians with PsO revealed that 28% felt judged, 53% believed a lack of understanding increased their emotional strain, and many expressed embarrassment due to visible plaques (26). While overt discrimination is reportedly rare, stakeholder interviews indicate that people living with the disease still face challenges in public spaces, such as being asked to leave pools, having cashiers avoid handling money, or being denied services like haircuts at barbershops.

## Colombia 1

A survey of 312 people living with PsO in Colombia found that 20% experienced discrimination, 24% felt their condition impacted social activities, 33% reported negative effects on their lives, and 23% faced challenges in their sexual lives (27). Interviews revealed that people living with psoriatic disease often anticipate being treated differently and are frequently stigmatized due to visible skin lesions, limiting their participation in public spaces. Some have encountered difficulties accessing public pools, securing employment, and maintaining social relationships. Misconceptions about the disease's communicability further contribute to social challenges. However, efforts by organizations like FUNDAPSO have helped improve awareness and reduce discrimination over time.

> **“Around 20 years ago, I was not allowed to be in a public pool with my family. Things have improved somewhat, partly due to the organized efforts of patient organizations like FUNDAPSO.**
>
> *Person living with psoriatic disease, Colombia*

## Panama 1

There is evidence that people living with psoriatic disease in Panama face stigmatization and, in some cases, workplace and social discrimination, including rejection by family members. Interviewees suggest that it is common for the general public to mistakenly assume that individuals with visible lesions have a contagious disease. Given the higher prevalence of infectious skin conditions in hot and humid regions like Panama, this misconception is not surprising. However, it leads to increased scrutiny for those with psoriatic disease, exacerbating social anxiety in certain settings. The Fundación Psoriasis de Panamá offers mental health support to individuals struggling with the disease.

> **“In public, it's normal for people to stare and whisper, but where it really becomes a problem is at work. That happens almost always.**
>
> *Person living with psoriatic disease, Panama*

## USA 2

Survey data collected by the NPF suggests that some people living with psoriatic disease in the USA continue to experience stigmatization (28). However, those interviewed felt that the stigma was relatively minor in their personal experiences and had improved over time. Two specialists noted that individuals with PsA may also face stigmatization due to physical limitations or visible discomfort, such as limping. Published evidence further highlights racial and economic disparities in the quality and accessibility of care in the USA, which may be attributed to broader systemic and social issues rather than disease-specific factors.

### Recommendations for best practice from the WHO Global Report on Psoriasis

1. Governments have a key role in reducing stigma and discrimination.
2. Active steps by Member States include anti-discrimination legislation and enforcement of existing legislation.
3. Patients’ organizations have a key role in providing support to people suffering from psoriasis and in creating networks to foster mutual support and exchange of experiences.
4. Patients’ organizations and civil society have a key role in holding governments and policymakers to account on global commitments, and in fighting discrimination of people with psoriasis.

*Source: WHO 2016 Global report on psoriasis (4)*

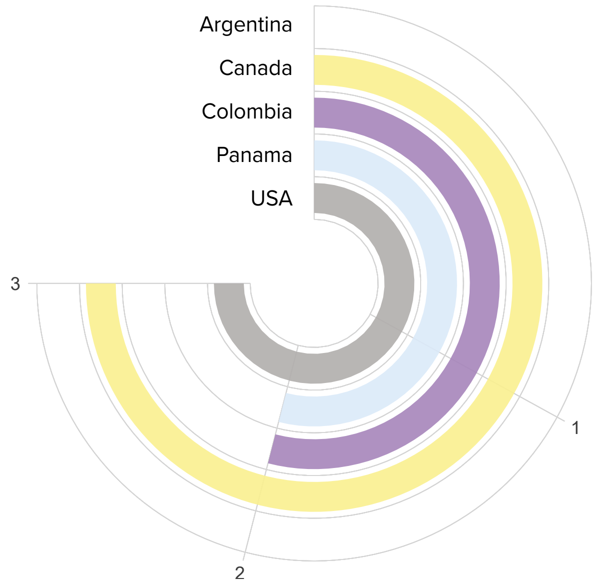
# Training for general practitioners

In many countries, individuals experiencing initial symptoms of psoriatic disease typically seek consultation at a primary care facility with a general practitioner (GP). As the first point of contact in psoriatic disease care, GPs should play a crucial role in ensuring timely diagnosis, managing milder cases, and referring patients with moderate to severe symptoms to appropriate specialists when necessary.

Access to psoriatic disease-related resources and GP training varies across healthcare systems (29-31), leading to differing levels of expertise in disease management in generalists. In cases where knowledge is lacking, patients may be misdiagnosed, receive ineffective treatment, remain on unsuitable therapy for extended periods, or have comorbidities overlooked. As a result, the international community has emphasized the need for greater awareness of psoriatic disease at the primary care level (4, 32)

> “ In cases where knowledge is lacking, patients may be misdiagnosed, receive ineffective treatment, remain on unsuitable therapy for extended periods, or have comorbidities overlooked.

## Country progress



### Argentina — N/A

In the Argentine healthcare system, patients can directly access specialist care from dermatologists and rheumatologists without needing a referral or first consulting a GP. While GPs have access to information on treatments and referrals, when necessary, the system's structure allows individuals to seek specialist care independently. As a result, a score for psoriatic disease training for GPs in Argentina was deemed irrelevant. However, multiple interviewees expressed that the risk remains that person living with the disease may consult the wrong specialist for their PsA symptoms.

### Canada — 3

In Canada, professional development training and resources for GPs are available through both the core curriculum and supplementary certifications, conferences, and courses. According to a GP interview, McMaster University hosts Dermatology Day events nationwide. Additionally, various ad hoc educational programs are accessible to GPs. As highlighted in a nurse interview, these programs are not government-funded but may be organized by the Dermatology Association, sometimes with support from pharmaceutical companies. These programs focus on defining dermatological conditions, understanding pathology, and offering guidance on diagnosis and treatment, specifically designed for GPs.

## Colombia

2

In Colombia, dermatological organizations and certification programs offer training for primary care physicians on PsO management. While some online courses and training sessions are organized by specialists and pharmaceutical companies, their availability remains limited. Training for GPs is not a primary focus, as most resources are directed toward dermatologists. According to a GP interview, some courses are available, but they are not comprehensive. However, GPs in Colombia who are interested have the potential to access these resources.

> **“GPs need to have the right knowledge and skills for diagnosing, treating, and referring people with psoriatic disease appropriately.**
>
> *Dermatologist, Colombia*

## Panama

2

In Panama, GPs have access to some resources that provide training on identifying, referring, diagnosing, and managing psoriatic disease. These resources are offered by the Panamanian Dermatology Association and the Fundación Psoriasis de Panamá. However, it is unclear whether psoriatic disease is included in the core curriculum for primary care physicians in Panama. In 2022, Panama passed a law declaring the "medical attention, research, and professional training in the early detection, diagnosis, and comprehensive treatment of psoriasis" a matter of national interest (33). This legislation is expected to further prioritize the education of healthcare professionals on psoriatic disease.

## USA

3

In the USA, primary care physicians receive training in diagnosing and managing psoriatic disease both as part of their core medical education and through additional programs offered by dermatology and rheumatology associations, Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA), the NPF, and other advocacy organizations. The NPF provides continuing medical education resources that cover the latest treatment options, discoveries, and advancements in PsO and PsA (34). Additionally, pharmaceutical companies often sponsor these supplementary training programs.

## Recommendations for best practice from the WHO Global Report on Psoriasis

1 Specialist dermatologists are unavailable for the majority of people living with psoriasis, especially in low- and middle-income countries. The umbrella organizations of health-care providers should take the initiative to conduct education and training for physicians and other health-care providers such as nurses and community health workers.

2 Governments and nongovernmental organizations should provide education on common chronic skin conditions to health-care professionals, including undergraduate medical and nursing curricula and in service training for physicians in primary care. There is a great need to raise awareness and knowledge about psoriasis among general practitioners to increase early diagnosis and prevent disability.

3 All health professionals, especially clinicians working in primary health care, should be aware of psoriasis, its management and its co-morbidities. Health care professionals’ associations should provide training, for example, via the Internet for physicians from low- and middle-income countries, regarding prompt diagnosis and effective treatment of psoriasis. Patients with psoriasis need access to primary health care that responds to their individual needs and coordinates with any additional specialist care.

>>

4 The primary care provider, based on consultation with the patient, would seamlessly coordinate the inputs from various specialists, including dermatologists, rheumatologists, cardiologists and psychologists. Furthermore, if a dermatologist is not available, a general practitioner should monitor the progress of treatment, and in the case of relapse refer the patient to the appropriate specialists.

*Source: WHO 2016 Global report on psoriasis (4)*

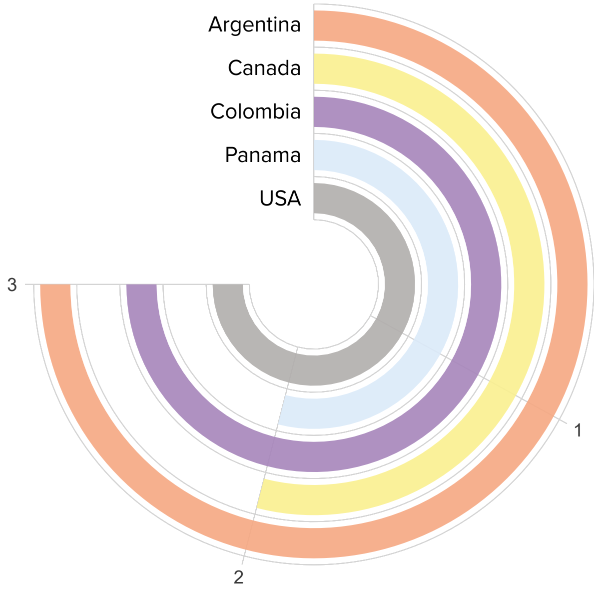
# Treatment Guidelines

> It is essential for state or regional institutions responsible for clinical guidelines to develop, adapt, and actively promote psoriatic disease guidelines

Clinical guidelines for GPs and specialists play a crucial role in ensuring timely diagnosis, facilitating appropriate treatment selection, and increasing awareness of the complex nature of psoriatic disease, including its comorbidities. However, even in countries where such guidelines exist, previous research has indicated that their adoption in clinical practice can be inconsistent (32).

To enhance patient care, it is essential for state or regional institutions responsible for clinical guidelines to develop, adapt, and actively promote psoriatic disease guidelines among healthcare professionals who interact with affected individuals. Evidence suggests that when care providers integrate these guidelines into clinical practice, the overall quality of care improves (35, 36).

## Country progress



## Argentina 3

In Argentina, there are current and recently updated treatment guidelines for both PsO (37) and PsA (38). These guidelines are actively implemented in clinical practice, guiding treatment decisions based on severity, location, and comorbidities. Interviews with clinicians suggest that these guidelines effectively meet the needs of healthcare professionals.

## Canada 2

The report "PSO SERIOUS 2024: A Report on Access to Care and Treatment for Psoriatic Disease in Canada," published by Psoriasis Canada—a merger of the Canadian Psoriasis Network and the Canadian Association of Psoriasis Patients—states that the clinical practice guidelines for Canadian physicians managing plaque psoriasis were first released in 2011 and later revised in 2016. However, no updated guidelines have been introduced since then (39). Interviewees noted that the existing national guidelines are outdated and inadequate for healthcare providers, prompting some to rely on international guidelines such as the Joint American Academy of Dermatology (AAD)-NPF Guidelines and Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) treatment recommendations.

## Colombia

3

Colombia has established updated guidelines for PsO and PsA (40, 41), developed with input from dermatologists and rheumatologists. These guidelines categorize treatment approaches based on disease severity, localization, comorbidities, and therapy types, beginning with conventional systemic treatments before considering biologics. While they are designed to meet healthcare-provider needs and include treatment algorithms, their distribution and implementation can be challenging due to cost constraints and system limitations.

## Panama

2

Panama has local treatment guidelines for PsO, developed by a working group of dermatologists. However, there are no up-to-date local guidelines for PsA. In practice, many private healthcare providers in Panama rely on international guidelines for PsA, while those in the public system follow an older set of guidelines issued by the Ministry of Health. Although the current PsO guidelines include recommendations for biologic treatments, some of these are not available within the public healthcare system, leading to gaps in treatment access.

## USA

3

Several US institutions, including the AAD and the American College of Rheumatology (ACR), in collaboration with the NPF, have released guidelines for PsO and PsA (42-44). GRAPPA, also based in the USA, is highly regarded for its recommendations (45, 46). The NPF has partnered with the AAD to incorporate patient perspectives for a more holistic approach to disease management. While ACR's most recent guidelines, published in 2018 (47), are somewhat outdated, updates are currently in progress. In the meantime, rheumatologists often refer to GRAPPA or EULAR guidelines. Clinicians generally consider AAD/NPF's PsO guidelines comprehensive; however, an interviewer expressed that people living with the disease may face challenges with insurance coverage, as these guidelines can sometimes be used by insurance providers as a reference for restricting access to advanced therapies based on rigid measures of severity (e.g., only PASI score).

> **“ As we’ve become more comfortable with prescribing systemic therapies, the role of guidelines in determining treatment has become more flexible, shifting focus away from severity based solely on body surface area and placing greater emphasis on location, comorbidities, prior treatments, and quality of life impact on the patient**
>
> *Dermatologist, USA*

### Recommendations for best practice from the WHO Global Report on Psoriasis

1 There is evidence that when health-care providers are aware of guidelines and implement them in daily practice, the quality of care for psoriasis patients is increased.

2 Guidelines on the treatment of psoriasis are required, including clinical protocols that can be implemented realistically in resource-poor primary care settings.

3 There is a great need to develop guidelines regarding the diagnosis of psoriasis and its treatment. Furthermore, certain standards relating to medical care such as adequate assessment of progress of therapy, using uniform tools to assess the severity of the disease and patient QoL should be implemented. Doctors should establish objectives of care and plan therapy in collaboration with their patients.

4 Health services research needs to be better used in identifying specific needs of health care, unmet patient needs and barriers of guideline-compliant treatment. Health services research should monitor and provide feedback on the actions taken to improve quality of care and investigate efficiency of care. PsO care could thus become a model for the management of other chronic (skin) diseases.

*Source: WHO 2016 Global report on psoriasis (4)*

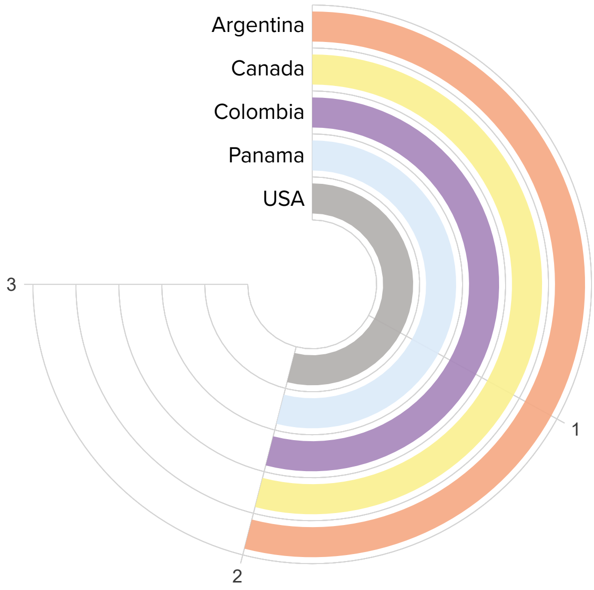
# Support **for** medication adherence

> Since psoriatic disease is a chronic condition, some patients may inevitably discontinue their treatment for various reasons.

Adherence to prescribed medication is crucial for ensuring the effectiveness of treatment. Since psoriatic disease is a chronic condition, some patients may inevitably discontinue their treatment for various reasons. Research has consistently shown that treatment adherence tends to be low among individuals with psoriatic disease (48-51). Common reasons for treatment discontinuation include a decline in effectiveness, cost concerns, fear of side effects, insufficient information about the treatment or the disease, and other factors.

To improve adherence, it is essential for patients to have access to disease-specific resources and support.

## Country progress



### Argentina 2

People living with the disease generally receive support for medication adherence through tools provided by both healthcare providers and pharmacies. While biologics improve adherence, follow-up visits remain a challenge. AEPSO offers psoriasis-specific support, but its resources are limited and insufficient to cover the entire country. Public awareness of the importance of adherence is still lacking, despite providers emphasizing its significance. Those interviewed indicated that the doctor-patient bond is considered particularly strong in Argentina, and providers can explain the importance of treatment. Although some people living with the disease face discontinuation issues, they receive guidance on medication frequency and proper use.

> There are some tools for adherence provided by both providers and pharmacies. The struggle is getting people back to the clinic for follow up.
>
> *Dermatologist, Argentina*

### Canada 2

Interviews with stakeholders reveal that support for medication adherence in people with PsO varies. Support includes patient assistance programs for those on biologics, periodic checkups, reminder apps, diaries, and educational pamphlets. While providers emphasize adherence, they may not do so consistently due to time constraints. Although adherence tools such as apps and diaries are available, people living with the disease often need to seek out information themselves. Pharma companies and healthcare providers offer some resources, but tools for non-biologic treatments are less common.

## Colombia

2

Colombia has some resources for medication adherence, such as support groups in pharmacies and tools like calendars and reminders, but coverage is limited, and most people living with the disease receive minimal support. Cross-functional teams, including psychologists, provide some assistance, mainly in larger cities, but their capacity is limited. Specialists and their support staff offer guidance and minor assistance, but their time is constrained. Overall, general advice is available, but specific support for improving adherence remains minimal.

## Panama

2

Typically, support for medication adherence in Panama reportedly comes from either the provider or the Fundación Psoriasis de Panamá, though the extent of support varies by provider. Private system providers are more likely to offer disease-specific support, whereas time constraints in the public system make it difficult for providers to offer detailed guidance. The Fundación Psoriasis de Panamá assists where possible by providing disease-specific information on treatments.

The interviewed individual with the disease reported that their provider had not given them additional information about their treatment pathway, and they felt that their current treatment did not adequately control their disease. If other patients experience similar uncertainty, they might be more likely to discontinue treatment or seek alternative options that may not be recommended.

## USA

2

In the USA, support for medication adherence varies widely and is often pharmacy dependent. Some pharmacies notify people living with the disease when their next dose is due, but there is no standardized system. Pharma companies offer patient support programs, including educational materials, although data about the value of those materials is limited.

Certain specialist clinics reportedly have embedded pharmacists who provide structured support, including phone outreach, injection training, lab and medication adherence tracking, and vaccine guidance. People living with the disease may also receive educational materials when their prescription is filled.

### Recommendations for best practice from the WHO Global Report on Psoriasis

1 Low adherence is partly due to insufficient communication regarding instructions on how to use the drug, misperception of possible adverse events and mistaken expectations about the speed and degree of improvement.

2 Clinicians must inform patients about the possible consequences of the disease and collaborate with them to identify barriers to adherence and help address these barriers to achieve optimal management.

*Source: WHO 2016 Global report on psoriasis (4)*

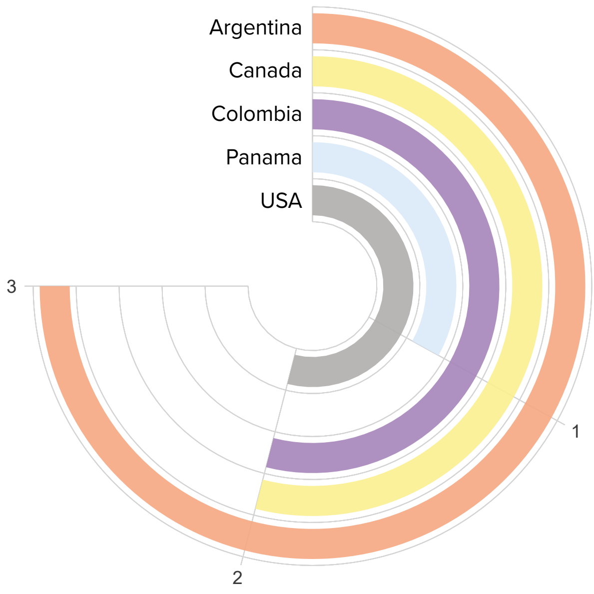
# Patient-centric investigation of wellbeing

> Clinicians should thoroughly assess their wellbeing using practical and effective methods that evaluate both physical and mental health.

Quality of life is the ultimate health outcome and the most significant factor for people living with the disease themselves. Moreover, QoL impact is not limited to a specific disease, allowing researchers and policymakers to compare its effects across different conditions to better allocate resources.

Various aspects of a patient’s care influence their QoL. To ensure treatment aligns with patients' needs and preferences, clinicians should thoroughly assess their wellbeing using practical and effective methods that evaluate both physical and mental health. Modern international guidelines recommend screening for both somatic and psychological comorbidities commonly associated with psoriatic disease, as well as conducting patient-reported outcome assessments, such as the DLQI.

## Country progress



### Argentina 3

In Argentina, the provider-patient relationship is generally perceived as strong by those interviewed. Patients receive assessments of their physical well-being, including comorbidities. While mental well-being is evaluated by some providers, it is unclear if this is a standard clinical practice. The person living with the disease interviewed felt that his mental health was not considered, whereas both specialists (a dermatologist and a rheumatologist) reported conducting regular mental health assessments. Additionally, some use of patient-reported outcomes (PROs) in clinical practice was noted, highlighting a growing focus on input from the patient. There is growing recognition of the need for a holistic approach that addresses both physical and mental health, ensuring better disease management and QoL.

### Canada 2

In Canada, patients' physical well-being, including comorbidities, is routinely assessed, especially in individuals living with PsA. However, mental well-being assessments vary due to time constraints and the heavy burden on the healthcare system. Some clinical use of PROs has been reported.

Multiple interviewees suggested that one of the main barriers to assessing mental health is the limited time specialists have with their patients. The Psoriasis

Canada PSO Serious 2024 report notes that Canadian dermatologists are improving comorbidity screenings, while awareness of PsA is increasing, leading to earlier diagnoses and reduced joint damage (39).

## Colombia 2

In Colombia, patients' physical well-being, including comorbidities, is regularly assessed during check-ups. Dermatologists and rheumatologists evaluate conditions such as arthritis and CVD, referring patients to specialists as needed. However, evidence suggests that mental well-being is often overlooked in clinical settings. While many individuals living with PsO experience depression and sadness, only a small percentage (28%) reportedly receive psychological care (27). Time constraints and stigma contribute to this lack of focus on mental health. Tools like the DLQI and PASI are commonly used to assess patients' status, typically at every visit or at least twice a year. These assessments help guide treatment decisions and track progress.

> **People don't often connect psoriatic disease to mental health, and some may not feel comfortable discussing it**
>
> *GP, Colombia*

## Panama 1

In Panama, the collected evidence indicates a lack of patient-centric investigations into well-being. The primary barrier to this is the limited time specialists have with their patients. While general physical well-being is assessed, reports on comorbidity assessments are mixed. As with other aspects of care, the quality of assessments tends to be higher for those who can afford private healthcare, which is not the majority.

Stigma around mental health reportedly persists, making both patients and providers hesitant to discuss the topic, even when the provider has sufficient time to address it. The clinical use of recognized PROs remains rare.

## USA 2

In the USA, patient well-being is inconsistently prioritized across providers. Physical examinations and comorbidity assessments are common but not universally performed. For example, data from the National Ambulatory Medical Care Survey showed that high blood pressure screening occurred in 32%-36% of observed visits, while only 6% included blood glucose screening (28). Another report indicated that only 27% of dermatologists inquire about mental health during visits (28). The use of PROs varies widely by provider and clinic, often due to time constraints for assessing the outcomes. While some clinics integrate high-tech tools like iPads for PRO collection, mental health screening—such as the Patient Health Questionnaire-9—is used in certain clinics but remains less routine than it should be. Dermatologists and rheumatologists may overlook or avoid mental health discussions, particularly if they are not specifically trained in PsO care.

## Recommendations for best practice from the WHO Global Report on Psoriasis

1 Optimum treatment of psoriasis, and its comorbidities, require shifting to a model of people-centered and integrated health services. All people with psoriasis should have access to health services that are provided in a way that responds to their preferences, are coordinated around their needs and are safe, effective, timely, efficient and of an acceptable quality.

2 For research outcomes that are more reliable, the currently used clinical outcome parameters, including PASI and patient-reported outcomes such as DLQI, need to be improved.

3 Health services research needs to be better used in identifying specific needs of health care, unmet patient needs and barriers of guideline-compliant treatment. Health services research should monitor and provide feedback on the actions taken to improve quality of care and investigate efficiency of care. Psoriasis care could thus become a model for the management of other chronic (skin) diseases.

4 In settings with adequate resources, health-care professionals and health systems must strive to provide patients with comprehensive care from multidisciplinary teams of specialists, including dermatologists, rheumatologists, psychologists, psychiatrists, paediatricians, cardiologists and others.

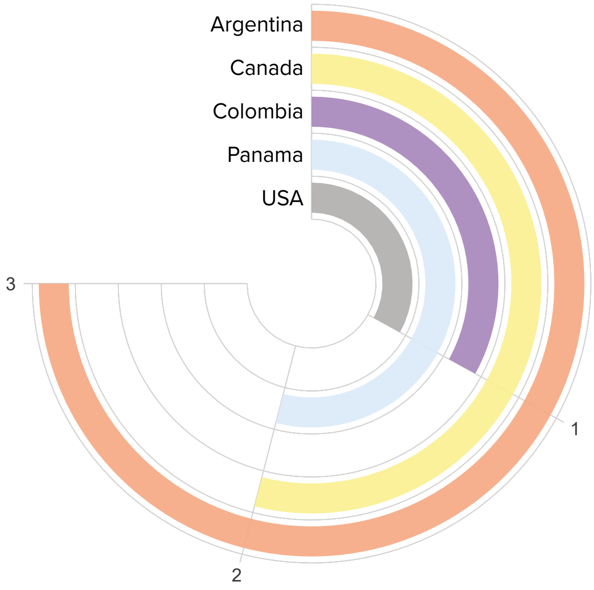
*Source: WHO 2016 Global report on psoriasis (4)*

# Time to diagnosis

The time taken to diagnose PsO or PsA can significantly influence disease severity, with delays potentially leading to worse long-term outcomes (48, 52-54). The duration between the onset of symptoms and receiving a clinical diagnosis varies across healthcare systems due to multiple factors, including healthcare provider awareness and referral capabilities, the referral process, the availability of specialists, patients' willingness or ability to seek care, symptom severity, and the speed of disease onset. Minimizing diagnostic delays within health systems is crucial to improving patient outcomes and reducing disease burden.

> **Minimizing diagnostic delays within health systems is crucial to improving patient outcomes and reducing disease burden.**

## Country progress



### Argentina — 3

In comparison to international estimates and estimates from other countries, Argentinian stakeholders feel that the time to diagnosis from healthcare presentation is relatively good. However, the time it takes is still far from ideal, and there is still risk for prolonged diagnostic delay, which can result in permanent joint damage for some people. Survey data shows PsA diagnosis takes from 6 months to over 10 years (55), with academic research suggesting a median time of 2 years. Recently published estimates for PsA diagnostic delay indicate a quite drastic improvement even in the past 10 years (56). Though these estimates are considered better relative to other sample countries, they are by no means considered ideal by any involved.

> **Things have improved, but in the 1990s, it took four years to receive my diagnosis. Today, it can still take months to years.**
>
> *Person living with psoriatic disease, Argentina*

## Canada

2

Canada faces significant challenges in timely diagnosis for people living with PsO and PsA. For PsO, the diagnostic process can take between 3 to 6 months or even over a year, with longer delays in remote areas due to extended wait times. For PsA, the time to diagnosis is often even lengthier, ranging from 6 months to several years, particularly in rural regions. According to the Psoriasis Canada PSO Serious 2024 report, access to care, particularly dermatological care, remains a major issue in Canada. This primary care crisis is contributing to delays in diagnosis and treatment for people living with skin conditions, including psoriatic disease (39).

## Colombia

1

In Colombia, interview findings indicate that the estimated time to diagnosis for PsO is rated poorly, with scores ranging from 1/5 to 3/5. Specialists interviewed estimated a diagnosis timeframe of 1-3 years for PsO and 1-5 years for PsA. Delays are primarily attributed to a shortage of specialists, misdiagnosis, and the limited capacity of GPs. Another contributing factor to delays is the reliance on GP referrals. This prolonged diagnostic period negatively affects patients' long-term health.

## Panama

2

Misdiagnosis is reportedly common in Panama, leading to delays in PsO diagnosis, which was estimated to typically take 6-12 months. PsA diagnoses often take 1-2 years, increasing the risk of permanent damage. The interviewed individual with the disease also reported experiencing a misdiagnosis, which further delayed their PsO diagnosis. The private healthcare system reportedly offers shorter diagnostic times, likely due to reduced wait times for specialist care and more time for thorough symptom assessment.

While these estimates are not particularly long compared to other regions sampled in this report, no published evidence was available to corroborate the estimates, and they still remain unacceptable for those living with the disease, especially in the case of PsA. Previous research has shown that a diagnostic delay of more than six months for PsA can result in permanent joint damage and worse functional outcomes for people living with the disease (52).

## USA

1

Estimates for the time to diagnosis vary in the USA. Diagnosis pathways for PsA can sometimes be indirect, with some cases identified by specialists in other fields, such as dermatology or orthopedics.
The researcher interviewed suggested that the time between first seeking healthcare and receiving a PsO diagnosis was 6-12 months, while for PsA, it was approximately two years. A published survey of people living with PsA found that nearly two-thirds of respondents received their diagnosis between six months and more than five years after initially seeking medical care. This delay is particularly concerning due to the risk of permanent damage for people living with PsA.

Another study estimated that 10–15% of individuals with PsO have undiagnosed PsA (57). Additionally, survey data from another study on people living with PsO found that 36% experienced symptoms for months before receiving a diagnosis, while 38% had symptoms for years before receiving a diagnosis (58).

## Recommendations for best practice from the WHO Global Report on Psoriasis

1 It is essential that psoriasis is diagnosed as early as possible. Early diagnosis and appropriate therapy give the best chance to prevent patients from unnecessary suffering, uncontrolled disease, irreversible deformities of the joints and disability.

2 Patients with psoriasis should be screened for the presence of early joint symptoms and if diagnosed with psoriatic arthritis should start appropriate treatment to prevent disease progression and joint destruction.

3 The development of solutions such as tele-dermatology also can contribute to faster dermatological diagnosis in countries where there is a lack of skin care specialists.

4 There is a great need to raise awareness and knowledge about psoriasis among general practitioners to increase early diagnosis and prevent disability.

5 Health care professionals associations should provide training, for example, via the Internet for physicians from low- and middle-income countries, regarding prompt diagnosis and effective treatment of psoriasis.

*Source: WHO 2016 Global report on psoriasis (4)*

# Access to medicines

> In systems where individuals must cover a significant portion of treatment costs, the risk of under-treatment increases, leading to an unnecessary burden on individuals

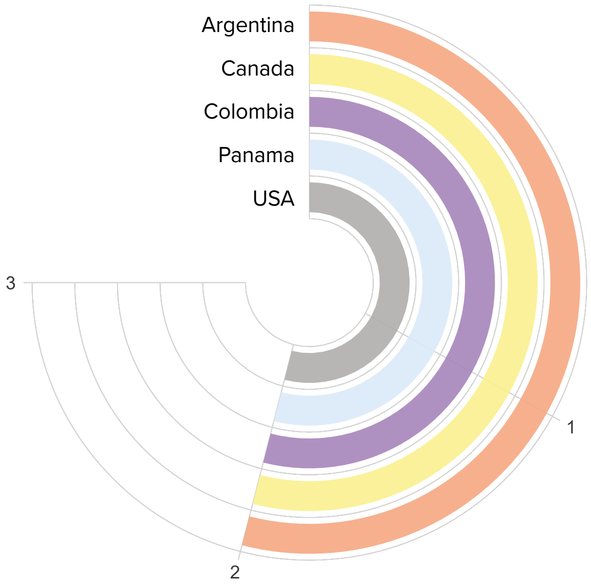
Since psoriatic disease is a chronic condition, the cost of treatment can be substantial over a person's lifetime, especially for those with moderate to severe symptoms. In healthcare systems where individuals bear significant expenses, household budgets are often heavily strained (59), increasing the likelihood of people in need of care avoiding it. This can lead to uncontrolled disease and poorer outcomes, resulting in worse outcomes and QoL (60). Moreover, worsening symptoms can contribute to lost productivity and absenteeism among individuals with psoriatic disease, further affecting their families and access to necessary treatment (61). According to the WHO Global Health Expenditure Atlas, medical debt pushes over half a billion people into poverty (62). Therefore, ensuring that effective treatments remain affordable is crucial for individuals living with psoriatic disease, regardless of their location or socio-economic background.

The cost of treatment varies and is closely linked to disease severity. Mild skin symptoms are usually managed with affordable topical treatments. Those with moderate to severe symptoms may require conventional systemic therapies, such as methotrexate or phototherapy, while others may be prescribed more expensive biologics or JAK inhibitors. Although biologic and JAK inhibitor treatments are both safe and effective, their high cost can impose a substantial financial burden (63, 64). As patents for branded biologics begin to expire, the introduction of biosimilars is expected to improve treatment accessibility for more people in need. The financial responsibility for treatment varies depending on the healthcare system, falling on either societal payers or patients. In systems where individuals must cover a significant portion of treatment costs, the risk of under-treatment increases, leading to an unnecessary burden on individuals.

Additional obstacles to medication access include regulatory and payer-related challenges. The latter is often tied to cost, while regulatory barriers stem from local evaluations of efficacy and safety. Another factor affecting access is clinicians' experience and familiarity with newer treatments, as concerns about tolerability may persist (65), though these concerns are gradually decreasing. Moreover, indicator 7, time to diagnosis, serves as a temporal barrier to accessing treatment.

These challenges present themselves differently across regions, leading to disparities in access to optimal treatment for individuals living with psoriatic disease.

## Country progress



## Argentina

2

In Argentina, the majority of topical and conventional systemic therapies for psoriatic disease are available, along with most biologics (see Table 2 below). The Mandatory Medical Program (PMO) applies to all social insurance plans (like national unions) and private insurance plans, ensuring 100% coverage for medications used to treat chronic prevalent diseases requiring continuous or recurrent use (66). Each of the 24 provinces has its own regulations, with most covering anti-TNFs and biosimilars. PAMI, the National Health Insurance for Retirees and Pensioners, provides full coverage for prescription medications for both chronic and acute diseases, including biologics, though access is restricted to those on its approved list (67). Coverage for biologics and small molecule drugs under national union insurance and private health plans varies by provider, typically requiring detailed medical justification and audit approval. Additionally, a solidarity fund exists for catastrophic diseases. Argentina's healthcare system is currently under review for significant reforms. People living with the disease are advised to consult directly with their public health system, social security, or private insurance provider for specific coverage details and access procedures.

Surveys highlight cost as a major barrier to accessing the right medication. In a 2024 survey of more than 800 people living with PsO, 48% reported difficulties in accessing medication, and 38.2% reduced or discontinued prescribed treatments, with 20% not adhering to treatment due to financial constraints (68). Similarly, a 2022 survey of 502 people living with PsO found that 46.4% considered abandoning treatment, primarily due to a lack of effectiveness (66.1%), followed by economic reasons (25.3%) and adverse effects (23.6%) (24). Additionally, a 2019 survey reported that 30% of people living with PsO and PsAs faced challenges in accessing biological therapy due to insurance issues, leading to treatment delays of 1-3 months (55).

Interviews with specialists highlighted several challenges in accessing PsO treatment. While conventional systemic treatments are affordable and widely available, biologics remain difficult to access due to their high cost. People living in rural areas often struggle with appointment availability, while administrative barriers, long wait times, and medication shortages further disrupt access. The interviewed individual with the disease rated their access as just 1/5. Although private insurance offers additional coverage, many still face difficulties, particularly within the public healthcare system. However, in most cases, access to medications is generally considered good, and clinicians believe the system functions well.

### Table 2: Treatments available for Argentina

| Treatment | | | | For PsO | For PsA | Biosimilars? | Pediatric? | State subsidized? | Comment |
|---|---|---|---|---|---|---|---|---|---|
| Topical therapies | | | | | | | | | |
| Vitamin D analogues | | | | x | | | x | | |
| Corticosteroids (e.g., betamethasone) | | | | x | | | x | | |
| Anthralin / dithranol | | | | | | | | | |
| Topical retinoids | | | | x | | | x | | |
| Phototherapy | | | | | | | | | |
| UV-light therapy | | | | x | | | x | | |
| Conventional systemic therapies | | | | | | | | | |
| Methotrexate | | | | x | x | | x | x | |
| Ciclosporin | | | | x | x | | x | x | |
| Acitretin | | | | x | | | x | x | |
| Oral small molecules (e.g., apermilast, deucravacitinib) | | | | x | x | x | | | |
| Biologics | Generic name | Target | Approved for: | | | | | | |
| Remicade | Infliximab | TNF | PsO & PsA | x | x | x | x | x | |
| Enbrel | Etanercept | TNF | PsO & PsA | x | x | x | x | x | |
| Humira | Adalimumab | TNF | PsO & PsA | x | x | x | x | x | |
| Raptiva | Efalizumab | CD11a | PsO | | | | | | |
| Stelara | Ustekinumab | IL-12/23 | PsO & PsA | x | x | | | x | - |
| Cimzia | Certolizumab pegol | TNF | PsA | x | x | | | x | Available for those who are pregnant |
| Simponi | Golimumab | TNF | PsA | x | x | | x | x | Available as subcutaneous and IV |
| Cosentyx | Secukinumab | IL-17A | PsO & PsA | x | x | | x | x | - |
| Taltz | Ixekizumab | IL-17A | PsO & PsA | x | x | | | x | - |
| Xeljanz | Tofacitinib | JAK | PsA | | x | x | x | x | - |
| Siliq / Kyntheum | Brodalumab | IL-17A | PsO | | | | | | - |
| Tremfya | Guselkumab | IL-23 | PsO & PsA | x | x | | | x | - |
| Illumya | Tildrakizumab | IL-23 | PsO | | | | | | - |
| Skyrizi | Risankizumab | IL-23 | PsO & PsA | x | x | | | | - |
| Rinvoq | Upadacitinib | JAK | PsA | | x | | | x | - |
| Bimzelx | Bimekizumab | IL-17A/ 17F/17AF | PsO & PsA | | | | | | - |
| Spevigo | Spesolimab | IL-36R | PsO | x | | | | x | Available for GPP during flares |

**Key:** CD11a = Cluster of Differentiation 11a, e.g. = Example, GPP = Generalized pustular psoriasis, IL= Interleukin, IL-36R = Interleukin-36 receptor, IV = Intravenous, JAK = Janus kinase, PsA = Psoriatic arthritis, PsO = Psoriasis, TNF = Tumor necrosis factor, UV = Ultraviolet

## Table 3: Treatments available in Canada

| Treatment | | | | For PsO | For PsA | Biosimilars? | Pediatric? | State subsidized? | Comment |
|---|---|---|---|---|---|---|---|---|---|
| **Topical therapies** | | | | | | | | | |
| Vitamin D analogues | | | | x | | | | | |
| Corticosteroids (e.g., betamethasone) | | | | x | | | | | |
| Anthralin / dithranol | | | | x | | | | | |
| Topical retinoids | | | | x | | | | | |
| Non-steroid selective inhibitor for PDE4 (Zoryve [Roflumilast]) | | | | x | | | x | | Indicated for treatment of plaque PsO. |
| **Phototherapy** | | | | | | | | | |
| UV-light therapy | | | | x | | | | | |
| **Conventional systemic therapies** | | | | | | | | | |
| Methotrexate | | | | x | x | | | | |
| Ciclosporin | | | | x | x | | | | |
| Acitretin | | | | x | | | | | |
| Oral small molecules (e.g., apermilast, deucravacitinib) | | | | x | x | | | | |
| **Biologics** | **Generic name** | **Target** | **Approved for:** | | | | | | |
| Remicade | Infliximab | TNF | PsO & PsA | x | x | x | | | |
| Enbrel | Etanercept | TNF | PsO & PsA | x | x | x | x | | |
| Humira | Adalimumab | TNF | PsO & PsA | x | x | x | | | |
| Raptiva | Efalizumab | CD11a | PsO | | | | | | Was approved but withdrawn in 2009 for safety concerns |
| Stelara | Ustekinumab | IL-12/23 | PsO & PsA | x | x | x | x | | |
| Cimzia | Certolizumab pegol | TNF | PsA | x | x | | | | |
| Simponi | Golimumab | TNF | PsA | | x | | | | |
| Cosentyx | Secukinumab | IL-17A | PsO & PsA | x | x | | x | | |
| Taltz | Ixekizumab | IL-17A | PsO & PsA | x | x | | x | | |
| Xeljanz | Tofacitinib | JAK | PsA | | x | | | | |
| Siliq / Kyntheum | Brodalumab | IL-17A | PsO | x | | | | | |
| Tremfya | Guselkumab | IL-23 | PsO & PsA | x | x | | | | |
| Illumya | Tildrakizumab | IL-23 | PsO | x | | | | | |
| Skyrizi | Risankizumab | IL-23 | PsO & PsA | x | x | | | | |
| Rinvoq | Upadacitinib | JAK | PsA | | x | | | | |
| Bimzelx | Bimekizumab | IL-17A/ 7F/17AF | PsO & PsA | x | x | | | | |
| Orencia | Abatacept | | PsA | | x | | | | |
| Spevigo | Spesolimab | IL-36R | PsO | x | | | | | Approved for GPP |

**Key:** CD11a = Cluster of Differentiation 11a, e.g. = Example, GPP = Generalized pustular psoriasis, IL= Interleukin, IL-36R = Interleukin-36 receptor, JAK = Janus kinase, PDE4 = Phosphodiesterase-4, PsA = Psoriatic arthritis, PsO = Psoriasis, TNF = Tumor necrosis factor, UV = Ultraviolet. Note: * Given that Public Health formularies are managed at the provincial level it is hard to answer the subsidized question – whether or not a medication is publicly funded depends very much on where a patient lives. Many biologic medications when they are on a public formulary are only approved with Special Authorization. Many provincial, territorial and Federal drug programs also have non-medical switching policies, where a patient who is being treated with an originator biologic will switch to a biosimilar.

## Canada

2

Most commonly used treatments for PsO are available in Canada, including many biologics (see Table 3). However, there are some barriers that can delay or prevent access to those treatments. Based on information from the Psoriasis Canada PSO Serious 2024 report, access to affordable treatments for psoriatic disease also remains an issue for many people living with the condition. As CPN wrote in a submission to the Patented Medicine Prices Review Board (PMPRB) in 2020 "psoriatic disease patients often cannot afford medicines that are available in Canada, particularly new treatments. Access to innovative medicines in particular, which can put people into full remission of symptoms in many cases, are out of reach for most people who are not enrolled in a private drug plan. For those who do have public or private drug insurance, the copayments and deductibles can be significant".

As per the interviewees, access to PsO treatments in Canada faces several barriers, particularly for those with moderate to severe cases. One of the specialists interviewed reported that while access to treatments like biologics is generally quick for people with severe forms of disease, wait times for appointments and insurance requirements can cause delays. Many people living with psoriatic disease struggle to navigate complex insurance systems, with issues ranging from high copays for biologics to lack of coverage for certain medications. Public insurance can make drugs expensive, and many people living with the disease are unaware of provincial programs that provide support. Rural areas face additional challenges, such as limited access to prescribers and treatment options, although topicals are more accessible.

## Colombia

2

In Colombia, the vast majority of topical and conventional systemic therapies for treating psoriatic disease are available, along with most biologics (see Table 4). However, people living with the disease face some barriers to accessing PsO treatment. An online survey of 312 people living with PsO revealed that 23% felt unsupported by their doctors in managing their disease (27). As per interviews, access to PsO treatments in Colombia is generally subsidized but faces challenges. Specialists cited issues such as treatment coverage,

> **"There can be political issues that make access to medicines even more complex. Additionally, for those living far away, traveling to receive treatment can take a significant amount of time.**
>
> *Dermatologist, Colombia*

centralized biologic applications, and delays due to health system shortages. People living in rural areas struggle with long travel distances, transportation, and treatment storage (e.g., access to refrigeration). While specialists are generally accessible in urban areas, administrative hurdles and treatment shortages remain. People living with the disease with private insurance report easier access, while those in the public system face delays of 1-2 months for treatment approval. In addition, there is currently a funding crisis in Colombian healthcare, which is reportedly delaying times for treatment dispensations.

### Table 4: Treatments available in Colombia

| Treatment | | | | For PsO | For PsA | Biosimilars? | Pediatric? | State subsidized? | Comment |
|---|---|---|---|---|---|---|---|---|---|
| **Topical therapies** | | | | | | | | | |
| Vitamin D analogues | | | | x | | | x | x | |
| Corticosteroids (e.g., betamethasone) | | | | x | | | x | x | |
| Anthralin / dithranol | | | | | | | | | |
| Topical retinoids | | | | x | | | x | x | |
| **Phototherapy** | | | | | | | | | |
| UV-light therapy | | | | x | | | x | x | |
| **Conventional systemic therapies** | | | | | | | | | |
| Methotrexate | | | | x | x | | x | x | |
| Ciclosporin | | | | x | | | x | x | |
| Acitretin | | | | x | | | x | x | |
| Oral small molecules (e.g., apermilast, deucravacitinib) | | | | x | | | | x | |
| **Biologics** | **Generic name** | **Target** | **Approved for:** | | | | | | |
| Remicade | Infliximab | TNF | PsO & PsA | x | x | | | x | |
| Enbrel | Etanercept | TNF | PsO & PsA | x | x | | | x | |
| Humira | Adalimumab | TNF | PsO & PsA | x | x | | | x | |
| Raptiva | Efalizumab | CD11a | PsO | | | | | | |
| Stelara | Ustekinumab | IL-12/23 | PsO & PsA | x | x | | | x | |
| Cimzia | Certolizumab pegol | TNF | PsA | x | x | | | x | |
| Simponi | Golimumab | TNF | PsA | | | | | | |
| Cosentyx | Secukinumab | IL-17A | PsO & PsA | x | x | | | x | |
| Taltz | Ixekizumab | IL-17A | PsO & PsA | x | x | | | x | |
| Xeljanz | Tofacitinib | JAK | PsA | | | | | | |
| Siliq / Kyntheum | Brodalumab | IL-17A | PsO | | | | | | |
| Tremfya | Guselkumab | IL-23 | PsO & PsA | x | x | | | x | |
| Illumya | Tildrakizumab | IL-23 | PsO | | | | | | |
| Skyrizi | Risankizumab | IL-23 | PsO & PsA | x | x | | | x | |
| Rinvoq | Upadacitinib | JAK | PsA | | x | | | x | |
| Bimzelx | Bimekizumab | IL-17A/ 17F/17AF | PsO & PsA | | | | | | |

**Key:** CD11a = Cluster of Differentiation 11a, e.g. = Example, IL= Interleukin, IL-36R = Interleukin-36 receptor, JAK = Janus kinase, PsA = Psoriatic arthritis, PsO = Psoriasis, TNF = Tumor necrosis factor, UV = Ultraviolet.

## Panama

2

Most commonly used treatments for PsO are available in Panama, including many biologics (see Table 5: Available treatments in the Panama). The average access rating among interviewees was 3/5. The main barriers to treatment are cost and the availability of certain medications in public formularies. Basic

### Table 5: Treatments available in Panama

| Treatment | | | | For PsO | For PsA | Biosimilars? | Pediatric? | State subsidized? | Comment |
|---|---|---|---|---|---|---|---|---|---|
| **Topical therapies** | | | | | | | | | |
| Vitamin D analogues | | | | X | | | X | X | |
| Corticosteroids (e.g., betamethasone) | | | | X | | | X | X | |
| Anthralin / dithranol | | | | | | | | | |
| Topical retinoids | | | | | | | | | |
| **Phototherapy** | | | | | | | | | |
| UV-light therapy | | | | X | | | X | X | |
| **Conventional systemic therapies** | | | | | | | | | |
| Methotrexate | | | | X | X | | X | X | |
| Ciclosporin | | | | X | | | X | X | |
| Acitretin | | | | X | | | | X | |
| Oral small molecules (e.g., apermilast, deucravacitinib) | | | | | | | | | |
| **Biologics** | **Generic name** | **Target** | **Approved for:** | | | | | | |
| Remicade | Infliximab | TNF | PsO & PsA | X | X | | | X | |
| Enbrel | Etanercept | TNF | PsO & PsA | X | X | | X | X | |
| Humira | Adalimumab | TNF | PsO & PsA | X | X | | X | X | Biosimilar: Amgevita |
| Raptiva | Efalizumab | CD11a | PsO | | | | | | |
| Stelara | Ustekinumab | IL-12/23 | PsO & PsA | X | x | | | X | Exceptional Cases (NO LOM) |
| Cimzia | Certolizumab pegol | TNF | PsA | | | | | | |
| Simponi | Golimumab | TNF | PsA | | | | | | |
| Cosentyx | Secukinumab | IL-17A | PsO & PsA | X | X | | X | X | Exceptional Cases (NO LOM) |
| Taltz | Ixekizumab | IL-17A | PsO & PsA | | | | | | |
| Xeljanz | Tofacitinib | JAK | PsA | | | | | | |
| Siliq / Kyntheum | Brodalumab | IL-17A | PsO | | | | | | |
| Tremfya | Guselkumab | IL-23 | PsO & PsA | X | X | | | X | Exceptional Cases (NO LOM) |
| Illumya | Tildrakizumab | IL-23 | PsO | | | | | | |
| Skyrizi | Risankizumab | IL-23 | PsO & PsA | X | X | | | X | Exceptional Cases (NO LOM) |
| Rinvoq | Upadacitinib | JAK | PsA | | | | | | |
| Bimzelx | Bimekizumab | IL-17A/ 17F/17AF | PsO & PsA | | | | | | |

**Key:** CD11a = Cluster of Differentiation 11a, e.g. = Example, IL= Interleukin, IL-36R = Interleukin-36 receptor, JAK = Janus kinase, NO LOM: Not on the Official List of Medications, PsA = Psoriatic arthritis, PsO = Psoriasis, TNF = Tumor necrosis factor, UV = Ultraviolet.

topical and conventional systemic treatments are accessible, along with some older biologics (e.g., anti-TNFs). However, certain treatments are not covered by the public system and may only be available through private healthcare or out-of-pocket payments, which can be prohibitively expensive. Long wait times for public system appointments can further delay access to adequate disease control. Additionally, Panama lacks access to some of the latest biologics available internationally, limiting treatment options for those with moderate to severe disease. There is also reported hesitation among some providers to prescribe biologics, along with disparities in availability for people living in rural areas.

## USA

2

The USA is one of the world's largest developers of pharmaceuticals, and the FDA is often first globally to approve new treatments for psoriatic disease. Because of this, almost all available treatments can be found throughout the country (see Table 6). However, access to these treatments depends entirely on the type of insurance coverage someone living with psoriatic disease has. Unlike many other developed nations, the USA does not have a universal health coverage system. Instead, it combines public programs such as Medicare (for the elderly and disabled) and Medicaid (for low-income individuals) with private insurance, where employers often provide coverage, and individuals buy plans on the open market. In the public system (e.g., Medicare), the list of available treatments is more restricted, but there is better cost coverage for those treatments, as well as a cap on costs for the individual. For those with private healthcare, often provided through one's employer, the coverage can vary significantly. All of the providers we interviewed suggested that actual access for those with the disease is middling on average, and highly variant. This, combined with long wait times for specialist care and some evidence of prescriber hesitancy for biologics all represent access issues for people living with the disease in the US healthcare system.

### Table 6: Treatments available in USA

| Treatment | | | | For PsO | For PsA | Biosimilars? | Pediatric? | State subsidized? | Comment |
|---|---|---|---|---|---|---|---|---|---|
| **Topical therapies** | | | | | | | | | |
| Vitamin D analogues | | | | x | | | x | | |
| Corticosteroids (e.g., betamethasone) | | | | x | x | | x | | |
| Anthralin / dithranol | | | | x | | | x | | |
| Topical retinoids | | | | x | | | x | | |
| **Phototherapy** | | | | | | | | | |
| UV-light therapy | | | | x | x | | | | |
| **Conventional systemic therapies** | | | | | | | | | |
| Methotrexate | | | | x | x | | | | Off-label use in adults for PsA |
| Ciclosporin | | | | x | | | | | Also known as Cyclosporin |
| Acitretin | | | | x | | | | | Also known as Soriatane |
| Oral small molecules (e.g., apremilast, deucravacitinib) | | | | x | x | | | | Otezla (apremilast) approved for pediatric use in PsO. Sotyktu (deucravacitinib) approved in adults for PsO only. |
| Xeljanz and Xeljanz XR (tofacitinib) approved in adults for PsA only. | | | | | | | | | |
| **Biologics** | **Generic name** | **Target** | **Approved for:** | | | | | | |
| Remicade | Infliximab | TNF | PsO & PsA | x | x | x | | | |
| Enbrel | Etanercept | TNF | PsO & PsA | x | x | x | x | | Approved for pediatric use in PsO and active JPsA |
| Humira | Adalimumab | TNF | PsO & PsA | x | x | x | | | |
| Raptiva | Efalizumab | CD11a | PsO | | | | | | |
| Stelara | Ustekinumab | IL-12/23 | PsO & PsA | x | x | x | x | | Approved for pediatric use in PsO and PsA |
| Cimzia | Certolizumab pegol | TNF | PsA | x | x | | | | |
| Simponi | Golimumab | TNF | PsA | | x | | | | |
| Cosentyx | Secukinumab | IL-17A | PsO & PsA | x | x | | x | | Approved for pediatric use in PsO and PsA |
| Taltz | Ixekizumab | IL-17A | PsO & PsA | x | x | | x | | Approved for pediatric use in PsO and PsA |
| Xeljanz | Tofacitinib | JAK | PsA | | x | | | | |
| Siliq / Kyntheum | Brodalumab | IL-17A | PsO | x | | | | | |
| Tremfya | Guselkumab | IL-23 | PsO & PsA | x | x | | | | |
| Illumya | Tildrakizumab | IL-23 | PsO | x | | | | | |
| Skyrizi | Risankizumab | IL-23 | PsO & PsA | x | x | | | | |
| Rinvoq | Upadacitinib | JAK | PsA | | x | | | | |
| Bimzelx | Bimekizumab | IL-17A/ 17F/17AF | PsO & PsA | x | x | | | | |
| Spevigo | Spesolimab | IL-36R | PsO | x | | | x | | GPP (for adults and pediatrics) |
| Orencia | Abatacept | T cells | PsA | | x | | x | | For adults and pediatrics |

**Key:** CD11a = Cluster of Differentiation 11a, e.g. = Example, GPP = Generalized pustular psoriasis, IL= Interleukin, IL-36R = Interleukin-36 receptor, JAK = Janus kinase, JPsA = Juvenile psoriatic arthritis, PsA = Psoriatic arthritis, PsO = Psoriasis, TNF = Tumor necrosis factor, UV = Ultraviolet. Note: *Given the complexity of the USA market (no universal health care coverage and fragmented private/public systems) it was difficult to answer the subsidy question specific to each treatment.

## Recommendations for best practice from the WHO Global Report on Psoriasis

1. Patients suffering from psoriasis should have access to comprehensive, individually adapted treatment. At a minimum, public and private facilities should provide the drugs included on the WHO Model List of Essential Medicines, including systemic therapies.
2. For newer biological therapies, more needs to be done to reduce the price of these medicines, if they are to present a sustainable and affordable treatment option for patients with psoriasis. The development of biosimilars may help in this regard.
3. Researchers should investigate the etiology of psoriasis and therapies to prevent as well as to manage the symptoms of the disease. It is vital to create low-cost effective treatment options that can be made widely available.
4. New treatments need to be affordable, effective and safe in the long term, stable in hot and humid climates and require minimal monitoring.

*Source: WHO 2016 Global report on psoriasis (4)*

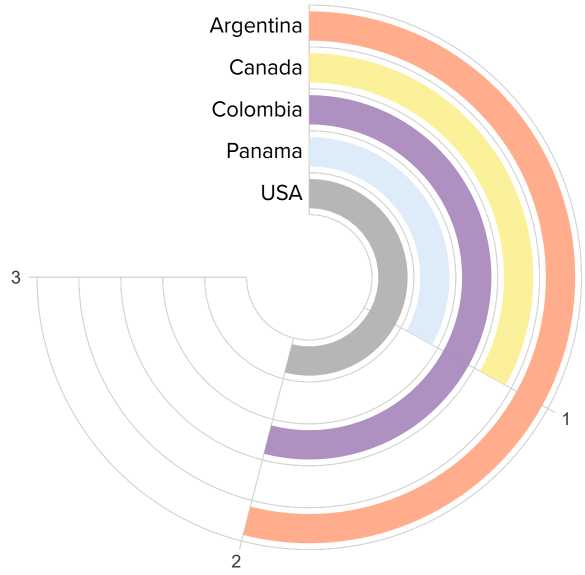
# Access to specialist care

In many healthcare systems worldwide, dermatologists typically diagnose and manage the skin symptoms of psoriatic disease, while rheumatologists oversee joint-related symptoms. Together, these specialists handle the most common physical manifestations of the disease. However, access to them varies across countries, making it challenging for people to seek care, obtain a timely and accurate diagnosis, and receive appropriate treatment. This can lead to disease progression and an increased risk of permanent damage or disability.

Since psoriatic disease is complex, healthcare providers must also address its associated comorbidities, which significantly impact health. One critical yet often neglected aspect is mental health. Individuals with psoriatic disease are more prone to anxiety, depression, suicidal ideation, and even schizophrenia (69, 70). Therefore, access to psychological and psychiatric specialists is an essential part of comprehensive care. Ideally, physicians would assess patients' mental well-being, and patients would feel comfortable discussing any psychological challenges they face.

> “Since psoriatic disease is complex, healthcare providers must also address its associated comorbidities, which significantly impact health

## Country progress



### Argentina — 2

In Argentina, people living with PsO face challenges in accessing medical care and managing their condition. A 2023 survey found that 63% of people living with the disease consult more than one specialist, and over half struggle to secure medical appointments due to delays and a shortage of specialists (23). A 2024 nationwide survey by AEPSO revealed that many people living with the disease had to switch to lower-coverage health plans, with 42% requiring financial assistance and 42.7% postponing or suspending consultations for economic reasons (68).

According to interviews, access to specialists varies depending on location and insurance coverage. Dermatologist and rheumatologist appointments typically have wait times of 1–3 months, with rheumatologists being less available. Mental health support is more complex, as fewer patients seek it, though public coverage is available. Access to rheumatologists is generally better in major cities, where most people living with the disease can see one within six months to a year.

### Canada — 1

Access to specialist care in Canada is hindered by high costs, specialist shortages, and long wait times, particularly for dermatologists, psychiatrists and above all, rheumatologists. According to 2022 Canadian Institutes for Health Information data, Canada has 725 dermatologists, equating to 1.86 per 100,000 people-only a slight increase from 1.6–1.7 per 100,000 between 1995 and 2017 (39). Transitioning from paediatric to adult care is also challenging for people living with psoriatic disease, as not all dermatologists treat both age groups. One interviewee indicated that the lack of a fully integrated, centralized electronic health record (EHR) system can complicate care coordination across and within provinces. Currently, only about half of Canada's provinces have an established and centralized EHR system (71-75), while others are currently in development (76-80) A rheumatologist interview highlighted a shortage of PCPs, increasing patient loads and severity per specialist, leading to longer wait times and less time per patient.

## Colombia

2

In Colombia, interviews revealed several barriers to accessing dermatologists and rheumatologists, including a limited number of specialists—especially rheumatologists—long wait times for appointments, and the fact that not all dermatologists specialize in PsO. High costs for payors and the scarcity of specialists further complicate access to care. Access to psychological or psychiatric care for PsO is also challenging due to stigma; while mental health services are covered under the public system, the stigma associated with mental health issues makes both patients and providers hesitant to address them.

## Panama

1

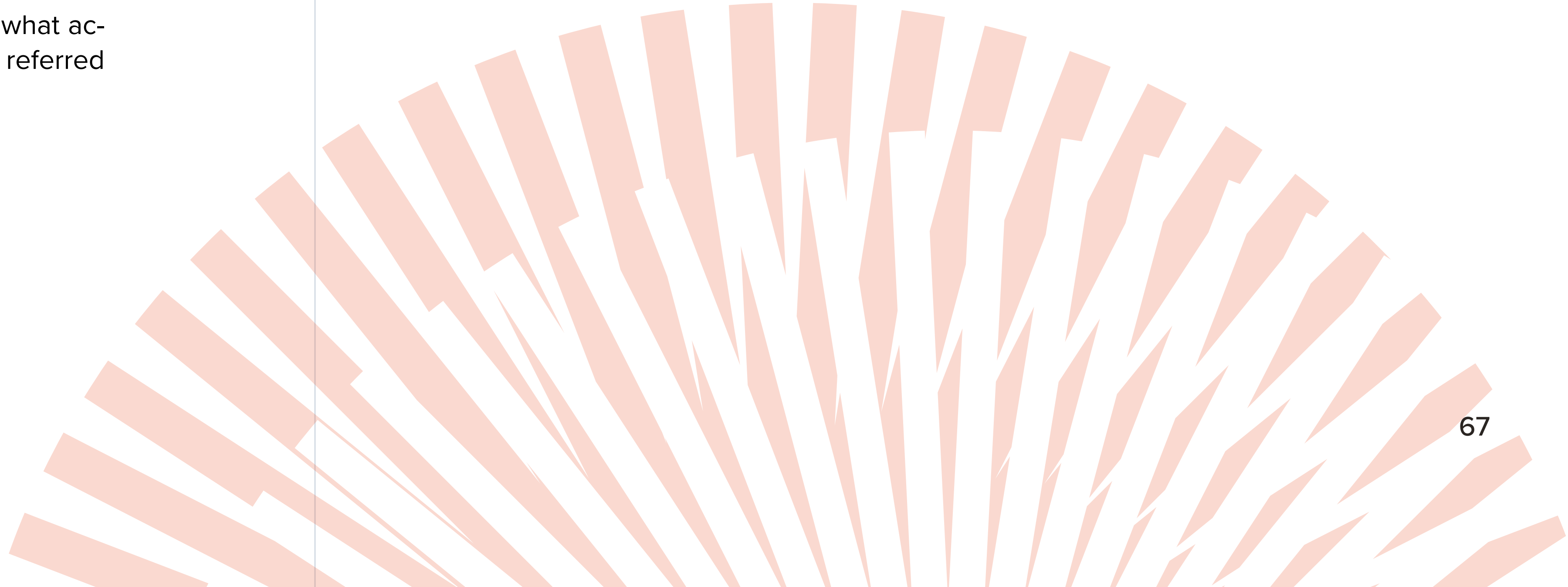
In Panama, access to specialist care varies significantly based on location. While access is much better in larger cities, it is considerably more limited in rural areas. Interviews indicated a shortage of dermatologists and an even greater scarcity of rheumatologists specializing in psoriatic disease. Long wait times in the public healthcare system lead to delays in diagnosis and adequate treatment for some patients. In contrast, the private healthcare system offers faster access to specialists, but at a high cost. Mental healthcare is reportedly somewhat accessible, but stigma may deter individuals from seeking it, even when referred or recommended.

## USA

2

In the USA, while specialists are technically available across the country, access to them varies significantly based on location (rural vs. metropolitan), insurance coverage, and wait times. Some providers may not accept the insurance plans held by individuals with psoriatic disease. Those in rural areas may need to travel long distances or face longer wait times for appointments. Mental health care is particularly difficult to access, often requiring self-payment due to a shortage of providers accepting insurance, further exacerbated by stigma. While some specialists address mental health within their practice, many lack the time or expertise to do so. The expansion of telehealth services has improved access in some areas.

> **The problem is that in the US, there aren't many dermatologists or rheumatologists in rural areas. As a result, patients may need to travel a considerable distance to see a specialist.**
>
> *Person living with the disease, USA*



## Recommendations for best practice from the WHO Global Report on Psoriasis

1 Lack of a sufficient number of health professionals to some extent also contributes to low public awareness of psoriasis and the exclusion and discrimination of patients diagnosed with the disease.

2 In settings with adequate resources, health-care professionals and health systems must strive to provide patients with comprehensive care from multidisciplinary teams of specialists, including dermatologists, rheumatologists, psychologists, psychiatrists, pediatricians, cardiologists and others.

3 Associations of medical specialists have a role in seeking consensus on the classification of psoriasis and standardization of the collection of epidemiological data using a unified methodology.

4 Member States should ensure that people suffering from psoriasis have access to professional medical care. Optimum therapy also reduces mental health and societal costs of the disease.

*Source: WHO 2016 Global report on psoriasis (4)*

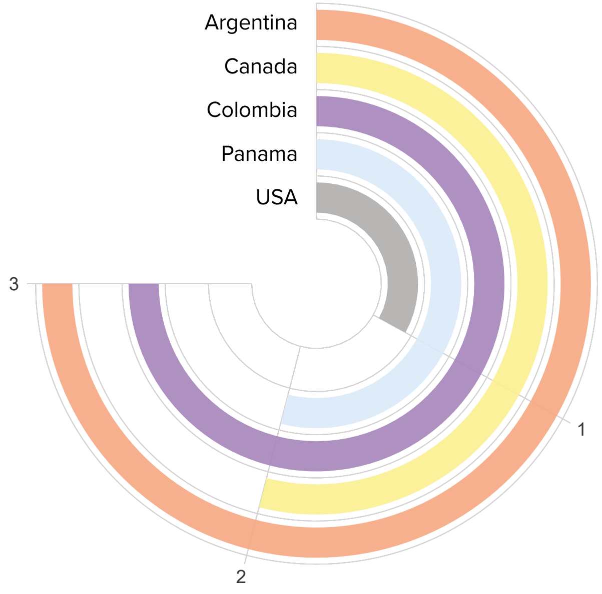
# Direct and indirect costs to the economy

Two key components of the societal burden of psoriatic disease are the direct and indirect costs of care. Direct costs refer to medical and non-medical expenses incurred by patients and other payors, including treatment, hospital fees, transportation to and from clinics, and more. Indirect costs encompass the broader economic impact on individuals with the disease and their families, such as the time family members spend caring for those affected or the workdays people living with a disease miss due to their condition.

A higher overall expenditure by the state generally indicates a greater public investment in the care of people with psoriatic disease. In contrast, higher out-of-pocket costs for individuals suggest that the economic burden is being shifted directly onto those living with the disease, which can negatively impact both their health outcomes and household finances.

> “A higher overall expenditure by the state generally indicates a greater public investment in the care of people with psoriatic disease

## Country progress



### Argentina

3

Argentina’s healthcare system provides coverage through public hospitals (35% of the population), social security/union-run plans (60%), and private insurance (13%), which overlap for some. Though gaps in coverage still remain for some, based on literature estimates and interviews, most people benefit from some form of coverage. There are still issues with costs to the individuals and there are those who can fall outside the system due to informal employment. High costs, particularly for biologics, further limit accessibility. A 2023 survey found that 51.3% of people living with PsO spend over $10,000 ARS monthly on treatment, with 17.3% exceeding $20,000 ARS annually (which equate to $33.76 and $67.52in 2023 USD, respectively). Additionally, 68.8% sought alternative therapies, and 23.1% spent over $20,000 ARS on them (23). A 2022 survey revealed that 46.4% of people living with psoriatic disease considered abandoning treatment due to lack of effectiveness (66.1%), financial constraints (25.3%), and adverse effects (23.6%).

PsO significantly impacted daily life for those interviewed - 16.8% of interviewees lost six or more workdays in six months, and 18.3% undergo psychological treatment, with half spending over $10,000 ARS monthly on therapy (24).

## Canada

2

In Canada, psoriatic disease imposes moderate to high system-wide expenditure and a significant economic burden on people living with the disease. Public coverage varies by province and is often limited, while private insurance depends on employer-provided benefits. Many working-age individuals may not have private insurance, making access to preferred treatments more challenging. Although reimbursement and support programs are available, navigating the system can be complex and financially burdensome for those affected. A recent Canadian population-based cohort study reported that the cumulative three-year mean (SD) cost for the most responsible diagnosis was $3,477 CAD ($14,979 CAD) for people with generalized pustular psoriasis (GPP) and $503 CAD ($2,267 CAD) for those with psoriasis vulgaris ($p < 0.01$) (81)

## Colombia

3

The Colombian healthcare system provides full coverage for PsO treatments, resulting in low economic burden for people living with the disease. However, regulatory hurdles and supply issues can create barriers, particularly while the funding crisis persists. While 95-99% of patients registered in the public system are covered, there are some who live in the country that fall outside the system. Steps should be taken to ensure that those individuals are able to benefit from the same care system. In 2019, system-wide spending on biological therapies was significant, with costs ranging from $46.6 million to $69.2 million USD annually.(82)

## Panama

2

The Panamanian public healthcare system provides full coverage for medical visits and a list of approved treatments. A portion of the population also pays for private insurance, which, depending on the coverage level, may provide access to additional treatments not covered by the public system. However, an estimated 20% of the population has no health coverage at all. For those paying out of pocket, treatment costs can range from approximately USD 350 for milder cases to as much as USD 2,500 per month for more severe cases, making treatment unaffordable for some individuals.

> “Those without social security don’t have coverage for treatment. It is easier for people with private insurance to get access, but they have to pay more.
>
> *Rheumatologist, Panama*

## USA

1

The for-profit healthcare system in the USA results in relatively low system-wide spending on psoriatic disease care and a high economic burden for people living with the disease. A 2021 study estimated that the total direct cost per month for a person living with GPP was higher than for matched plaque PsO and general population cohorts ($3,175 vs. $2,031 vs. $518 USD, respectively), with pharmacy costs accounting for the majority of expenses (83). The estimated 12-month total healthcare costs were $21,756 USD for those without biologic treatment and $41,441 USD for those receiving biologic therapy, highlighting the significant financial burden for individuals whose costs are not fully covered or only partially covered (84). Additionally, 81% of individuals with PsA report some level of work impairment, including decreased productivity (42%), switching jobs (12%), quitting or being let go from a job (13%), and taking permanent disability (12%) (28). The annual incidence rate of work-loss days ranged from 7 to 18 in people living with PsO across three subgroups, compared to 6 days among people without PsO (85).

### Recommendations for best practice from the WHO Global Report on Psoriasis

1. Having access to affordable basic health care, having their psoriasis diagnosed and receiving early and appropriate treatment as well as affordable long-term supply of medicines and treatments would significantly reduce the unnecessary burden of psoriasis.
2. Optimum therapy also reduces mental health and societal costs of the disease.
3. At a minimum, public and private facilities should provide the drugs included on the WHO Model List of Essential Medicines, including systemic therapies. Universal health coverage schemes should cover the costs of these treatments.
4. Governments should take cost-effectiveness of treatment options into account when developing national guidelines.
5. The most important step is to implement global commitments to achieve universal health coverage.

*Source: WHO 2016 Global report on psoriasis (4)*

# Limitations

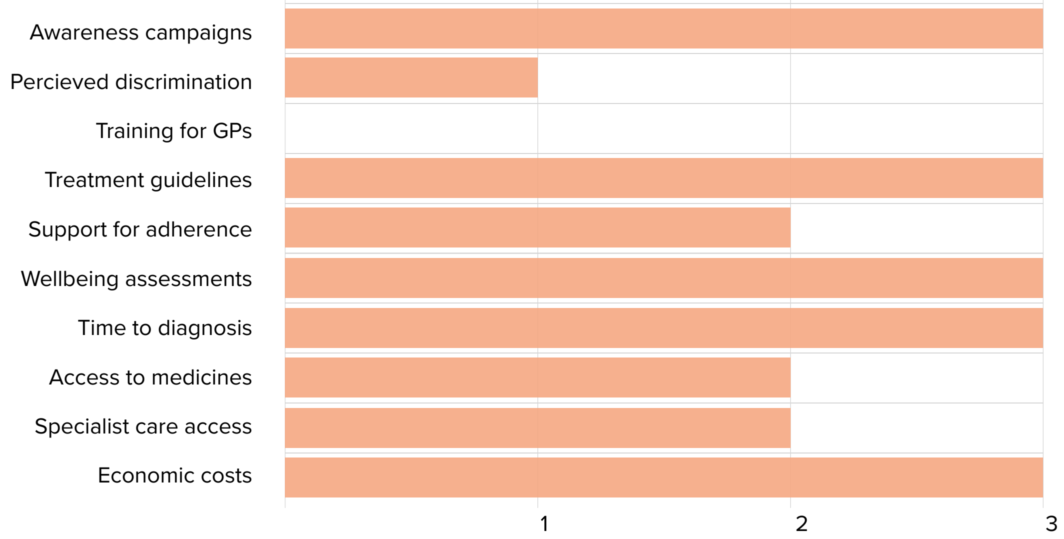
The Americas is a vast region, making it impractical to conduct interviews with a large proportion of relevant stakeholders. This report serves as an initial assessment of the region's progress in implementing the recommendations outlined in the WHO Global Report on Psoriasis. It establishes a foundation for future efforts, which should seek to engage a broader range of stakeholders and diversify respondents across factors such as urban versus rural settings, high versus low income, and private versus public healthcare practices. It is likely that most of the individuals interviewed for this report have relatively high socioeconomic status, and the challenges faced by less privileged individuals with psoriatic disease may be more severe. Though, some of those interviewed were able to provide a broader perspective.

The literature review conducted revealed a lack of peer-reviewed research relevant to many of the assessed indicators. Additional research is necessary in all five countries studied to build a more comprehensive evidence base, thereby enhancing the accuracy and impact of the conclusions. This aligns with the WHO Global Report on Psoriasis, which calls for further health services research to identify barriers and actions that can improve the quality of care. The interviews conducted helped mitigate this limitation by providing valuable context to the existing literature. Future research should also consider further expanding their searches in local languages, as they may contain additional relevant information. A key consequence of limited data availability is that the geographical situation may appear more favorable than it actually is, as existing challenges are less visible in the available research.

The indicators selected for this report provide a comprehensive overview of the recommendations from the WHO Global Report on Psoriasis. However, additional relevant indicators should be explored in future studies. A coordinated effort to collect and assess the same information simultaneously across countries would enhance comparability within the region. Additionally, the rating scale of 1–3 used in this report is open to interpretation. Importantly, a rating of 3 does not signify that a country has fully met the goal but rather that it has achieved the criteria outlined in this report.

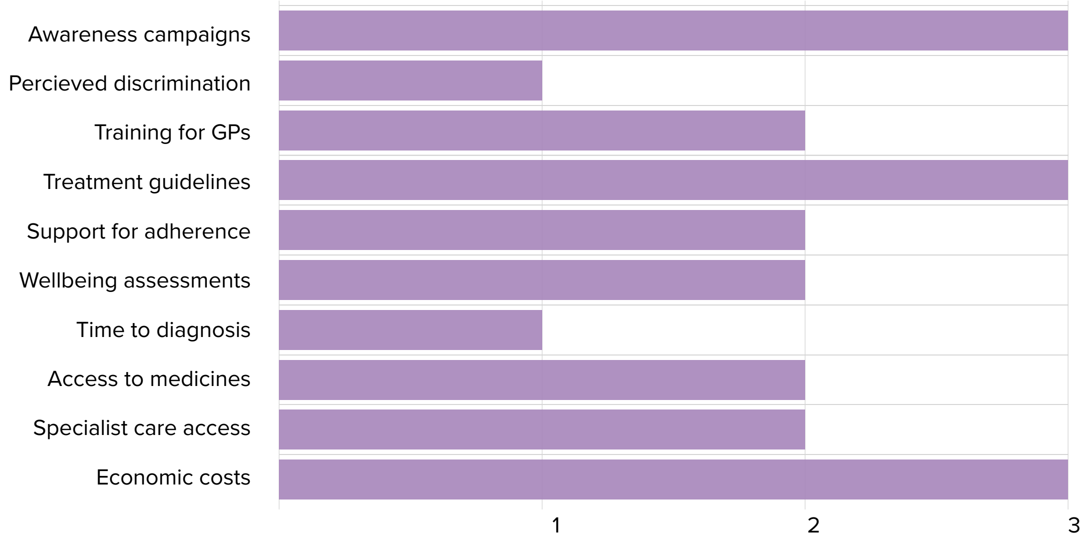
# Index scores by country

## Argentina

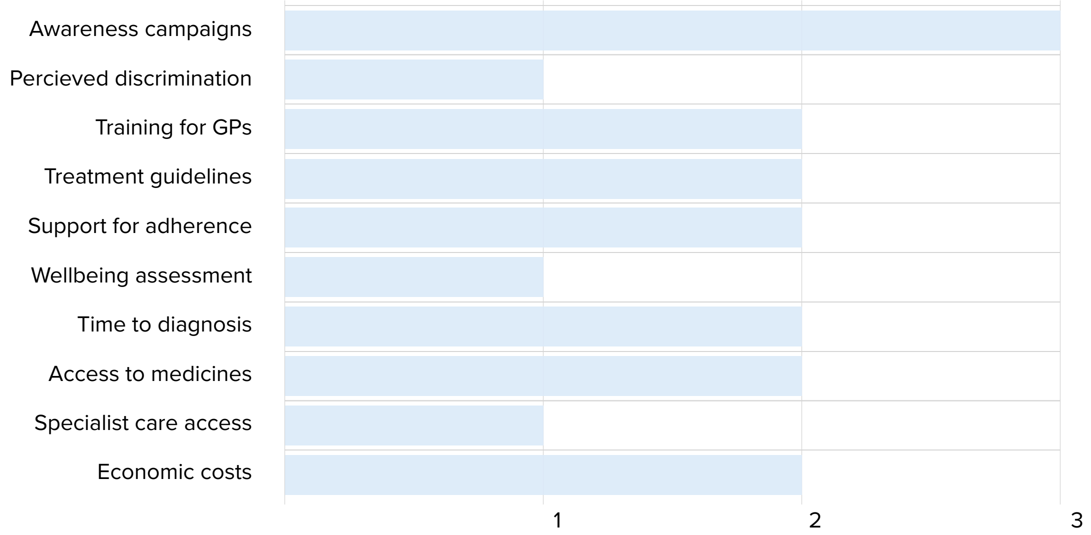


## Canada

## Colombia



## Panama



## USA

# Conclusions

This index report is the first of its kind in the Americas, offering valuable insights for a large population of individuals living with psoriatic disease in diverse conditions. It builds upon previous analyses conducted in Europe and the WPR, contributing to the global evaluation of progress in implementing the recommendations from the WHO Global Report on Psoriasis. The findings empower psoriatic disease stakeholders to make informed decisions on prioritizing initiatives, shaping policies, and allocating resources to enhance health and well-being. This, in turn, helps individuals move towards living free from stigma, preventable disability, and comorbidities. The report is based on a recent review of published and grey literature and a series of stakeholder interviews, providing an in-depth assessment of ten key indicators.

Based on the sample of countries analyzed in this report, the region of the Americas is making overall progress in implementing certain recommendations from the WHO Global Report on Psoriasis. Notable advancements include awareness campaigns, the use of treatment guidelines, training for GPs, and access to medicines. However, there is still considerable work needed in other key areas.

> “ The ability to seek and receive timely care for the signs and symptoms of psoriatic disease is essential for overall well-being

Although public awareness has improved, stigmatization of individuals living with psoriatic disease remains widespread across all countries, with significant evidence of discrimination in some. Local decision-makers, in partnership with patient organizations, should focus on educating the public about the realities of psoriatic disease and the experiences of those affected. Additionally, they should enhance efforts to inform current and future people living with the disease about available care options and how to access them.

The ability to seek and receive timely care for the signs and symptoms of psoriatic disease is essential for overall well-being. Many individuals start their medical journey in primary care, where GPs have access to various resources. However, since these resources often need to be actively sought out, there is a risk of misdiagnosis or delays in referrals to specialists. Argentina stands out as an exception, where patients typically seek care directly from specialists directly.

> “ Access to specialists varies widely both within and across countries, largely influenced by geographic location, but in some instances, also by payor coverage

While access to specialist care in the Americas is generally adequate in most studied countries from the perspectives of referral systems and universal health coverage, a widespread shortage of specialists limits the ability to meet patient needs. This shortage leads to unacceptably long and harmful wait times in some healthcare systems, particularly for individuals experiencing joint symptoms of psoriatic disease. Delays in diagnosis have clear consequences on timely access to treatment, especially for those with moderate-to-severe disease, who often require a specialist’s prescription for appropriate medication, ultimately impacting their QoL.

Access to specialists varies widely both within and across countries, largely influenced by geographic location, but in some instances, also by payor coverage. Individuals residing in remote areas, including rural regions with poorer infrastructure, face greater challenges in reaching healthcare providers. These difficulties are further exacerbated by the financial and time burdens associated with travel.

In clinical practice, the physical symptoms of psoriatic disease, including comorbidities, are generally assessed and managed regularly. However, stigma surrounding mental health support often discourages individuals from seeking psychological care, even when services are available. This remains a critical issue that must be addressed by both healthcare providers and society. The experiences of people living with psoriatic disease in the Americas, along with clinicians' observations, highlight ongoing stigmatization and discrimination related to the condition. While many acknowledge that awareness is improving,

> “ Mental health services are often only partially covered - or, in some cases, entirely excluded - from public health insurance. Recognizing the importance of psychological care is essential to ensuring comprehensive universal health coverage for individuals with psoriatic disease.

a significant burden persists. In addition to stigma, mental health services are often only partially covered - or, in some cases, entirely excluded - from public health insurance. Recognizing the importance of psychological care is essential to ensuring comprehensive universal health coverage for individuals with psoriatic disease.

> “Accessing the appropriate treatment remains difficult for many, largely due to cost-related barriers

For those who reach the appropriate healthcare provider and receive a diagnosis, many clinicians believe that adequate guidelines are available to support informed, evidence-based treatment decisions, even in the absence of country-specific guidelines. However, the primary treatment-related challenge for both clinicians and patients is financial. While a form of public-system health coverage exists in all the countries studied, accessing the appropriate treatment remains difficult for many, largely due to cost-related barriers. The distribution of healthcare expenses for psoriatic disease varied among the countries examined. In Argentina and Colombia, a substantial portion of costs is covered by the healthcare system, whereas in Canada, Panama, and the USA, individuals may face a potentially unsustainable financial burden to obtain necessary care. Additionally, access to medication adherence support was similar across the five countries, in that general support was commonly provided, but disease-specific support was less common.

The findings of this report should be interpreted in the context of each country’s economic development, particularly in comparison to other economic regions. A correlation exists between GDP per capita and various aspects of healthcare, including the direct cost burden on individuals and the availability of treatments in publicly funded formularies. Overall economic growth is likely to contribute indirectly to improved patient well-being.

## Recommendations

This report's findings highlight the following key recommendations to advance the implementation of the WHO Global Report on Psoriasis recommendations and enhance patient well-being in the Americas:

1. Pursue public awareness campaigns to reduce stigmatization in the general public
2. Reduce the patient/provider stigma associated with mental health care
3. Promote accessibility and equality of care for those who live in remote areas
4. Reduce out-of-pocket cost, in part by advancing universal health coverage
5. Increase the availability of specialists, or train GPs to support with care
6. Reduce waiting times for specialists
7. Raise awareness regarding the early diagnosis of psoriasis and the prevention of disability

Collaboration among various stakeholders, including people living with the disease and their representatives, caregivers, and decision-makers, is essential to effectively implement these recommendations and improve the well-being of individuals living with psoriatic disease in the Americas.

# References

1. IFPA. Our Cause 2023 [Available from: https://ifpa-pso.com/about-ifpa/our-cause].
2. World Bank Group 2024 [Available from: https://data.worldbank.org/indicator/SP.POP.TOTL].
3. Damiani G, Bragazzi NL, Karimkhani Aksut C, Wu D, Alicandro G, McGonagle D, et al. The Global, Regional, and National Burden of Psoriasis: Results and Insights From the Global Burden of Disease 2019 Study. Front Med (Lausanne). 2021;8:743180.
4. Organization WH. Global report on psoriasis. WHO; 2016.
5. IFPA. Psoriatic Disease Response Index - Europe. IFPA; 2020.
6. IFPA. Psoriatic Disease Response Index: Western Pacific Region. Sweden: IFPA; 2023 July 2023.
7. Geale K, Henriksson M, Jokinen J, Schmitt-Egenolf M. Association of Skin Psoriasis and Somatic Comorbidity With the Development of Psychiatric Illness in a Nationwide Swedish Study. JAMA Dermatol. 2020;156(7):795-804.
8. Menter MA, Armstrong AW, Gordon KB, Wu JJ. Common and Not-So-Common Comorbidities of Psoriasis. Semin Cutan Med Surg. 2018;37(2s):S48-s51.
9. Perez-Chada LM, Merola JF. Comorbidities associated with psoriatic arthritis: Review and update. Clin Immunol. 2020;214:108397.
10. Takeshita J, Grewal S, Langan SM, Mehta NN, Ogdie A, Van Voorhees AS, et al. Psoriasis and comorbid diseases: Epidemiology. J Am Acad Dermatol. 2017;76(3):377-90.
11. Lembke S, Macfarlane GJ, Jones GT. The worldwide prevalence of psoriatic arthritis-a systematic review and meta-analysis. Rheumatology (Oxford). 2024;63(12):3211-20.
12. Armstrong AW, Bohannan B, Mburu S, Coates LC, Ogdie A, Alarcon I, et al. Patient Perspectives on Psoriatic Disease Burden: Results from the Global Psoriasis and Beyond Survey. Dermatology. 2023;239(4):621-34.
13. Papadimitropoulos E, Romiti R, Haro JM, Brnabic A, Gómez-Martín D, Firmino Goncalves L, et al. Burden of Disease for Psoriasis in Argentina, Brazil, Colombia, and Mexico. Value Health Reg Issues. 2021;26:126-34.
14. Organization WH. 67th World Health Assembly - Agenda item 13.5: Psoriasis. WHO; 2014.
15. EclinicalMedicine. The burden of psoriasis: a call for awareness. EClinicalMedicine. 2021;38:101114.
16. Villani A, Cinelli E, Fabbrocini G, Megna M. Psoriasis awareness among general population: preliminary results of an online survey. Ital J Dermatol Venerol. 2021;156(6):665-8.
17. CAPP. Awareness campaign. PsoIntimate 2021 [Available from: https://canadianpsoriasis.ca/en/resources/awareness-campaigns/pso-intimate#:~:text=In%20February%20of%202021%2C%20we,issues%20around%20psoriasis%20and%20intimacy].
18. FUNDAPSO. Psoriasis y Familia 2024 [Available from: https://fundapso.org/].
19. Andrus E. Photographer Behind AbbVie's Clearly Me Campaign for Amplifying Voices of Psoriasis Speaks to Advocacy, Awareness 2024 [Available from: https://www.dermatologytimes.com/view/photographer-behind-abbvie-s-clearly-me-campaign-for-amplifying-voices-of-psoriasis-speaks-to-advocacy-awareness].
20. Zhang H, Yang Z, Tang K, Sun Q, Jin H. Stigmatization in Patients With Psoriasis: A Mini Review. Front Immunol. 2021;12:715839.
21. Chisholm A, Pearce CJ, Chinoy H, Warren RB, Bundy C. Distress, misperceptions, poor coping and suicidal ideation in psoriatic arthritis: a qualitative study. Rheumatology (Oxford). 2016;55(6):1047-52.
22. Mpofana N, Makgobole M, Nxumalo CT, Pillay P. Psoriasis: Clinical Features and Its Impact on Quality of Life. In: Vereecken P, editor. Psoriasis - Recent Advances in Diagnosis and Treatment. Rijeka: IntechOpen; 2024.
23. AEPSO. Survey of patients with psoriasis 2023. 2023.
24. AEPSO. Survey of patients with psoriasis 2022. 2022.
25. Canadian Psoriasis Network (CPN), the Canadian Association of Psoriasis Patients (CAPP) and Unmasking Psoriasis. Working it Out A report on the experiences of people with psoriatic disease in the Canadian workplace 2021 [Available from: https://www.canadianpsoriasisnetwork.com/wp-content/uploads/2021/10/WPD_Full-report_EN_10282021_Final.pdf].
26. CAPP. 2023 Survey on Living with Psoriasis 2023 [Available from: https://canadianpsoriasis.ca/en/resources/awareness-campaigns/2023-survey-on-living-with-psoriasis].
27. Usuga Usuga F, Gutiérrez G, Quirós Gomez O, Velásquez Lopera M, editors. Perspectives of colombian patients with psoriasis on access to treatment and its repercussion on the social environment. An experience

of Fundapso. JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY; 2019: WILEY 111 RIVER ST, HOBOKEN 07030-5774, NJ USA.

28. NPF. Psoriasis Health Indicator Report 2024 [Available from: https://npf-website.cdn.prismic.io/npf-website/Zkt5kSol0Zci9SIA_Health_Indicator_Report.pdf].
29. Abdulghani M, Al Sheik A, Alkhawajah M, Ammoury A, Behrens F, Benchikhi H, et al. Management of psoriasis in Africa and the Middle East: a review of current opinion, practice and opportunities for improvement. J Int Med Res. 2011;39(5):1573-88.
30. Gillard SE, Finlay AY. Current management of psoriasis in the United Kingdom: patterns of prescribing and resource use in primary care. Int J Clin Pract. 2005;59(11):1260-7.
31. Kumar S, Flood K, Golbari NM, Charrow AP, Porter ML, Kimball AB. Psoriasis: Knowledge, attitudes and perceptions among primary care providers. J Am Acad Dermatol. 2021;84(5):1421-3.
32. Augustin M, Alvaro-Gracia JM, Bagot M, Hillmann O, van de Kerkhof PC, Kobelt G, et al. A framework for improving the quality of care for people with psoriasis. J Eur Acad Dermatol Venereol. 2012;26 Suppl 4:1-16.
33. IFPA. Law 322 passes in Panama 2023 [Available from: https://www.ifpa-pso.com/resources-tools/law-322-passes-in-panama].
34. NPF. Education for Health Care Providers 2024 [Available from: https://www.psoriasis.org/cme-library/].
35. Augustin M, Eissing L, Langenbruch A, Enk A, Luger T, Maaßen D, et al. The German National Program on Psoriasis Health Care 2005-2015: results and experiences. Arch Dermatol Res. 2016;308(6):389-400.
36. Griffiths CE, Taylor H, Collins SI, Hobson JE, Collier PA, Chalmers RJ, et al. The impact of psoriasis guidelines on appropriateness of referral from primary to secondary care: a randomized controlled trial. Br J Dermatol. 2006;155(2):393-400.
37. de Dermatología SA. Consenso Nacional de Psoriasis: guías de tratamiento 2024 [Available from: https://sad.org.ar/wp-content/uploads/2024/08/CONSENSO-NACIONAL-PSORIASIS-2024.pdf].
38. de Reumatología SA. Guías argentinas de práctica clínica, diagnóstico, evaluación y tratamiento en pacientes con Artritis Psoriásica. Revista Argentina de Reumatología. 2019;30(3Sup):1 - 88.
39. Psoriasis Canada. PSO SERIOUS 2024: A Report on Access to Care and Treatment for Psoriatic Disease in Canada 2024 [Available from: https://www.canadianpsoriasis.ca/images/PsoSerious_2024/2024_PSO_Serious_Report_EN_Oct28v2.pdf].
40. Fernández-Ávila DG, González AMA, Arteaga CE, Arroyave DJ, Correa CIC, Chiquito S, et al. Clinical practice guideline for the treatment of psoriatic arthritis in Colombia. Revista Colombiana de Reumatología. 2023;30:S55-S64.
41. Castro Ayarza JR, Franco Franco MD, González Ardila CF, Londoño García ÁM, Hernández Mantilla N. Guía de práctica clínica para el tratamiento de la psoriasis en Colombia: ACTUALIZACIÓN 2022. Revista de la Asociación Colombiana de Dermatología y Cirugía Dermatológica. 2022;30(3):231-95.
42. Elmets CA, Korman NJ, Prater EF, Wong EB, Rupani RN, Kivelevitch D, et al. Joint AAD-NPF Guidelines of care for the management and treatment of psoriasis with topical therapy and alternative medicine modalities for psoriasis severity measures. J Am Acad Dermatol. 2021;84(2):432-70.
43. Menter A, Cordoro KM, Davis DMR, Kroshinsky D, Paller AS, Armstrong AW, et al. Joint American Academy of Dermatology-National Psoriasis Foundation guidelines of care for the management and treatment of psoriasis in pediatric patients. J Am Acad Dermatol. 2020;82(1):161-201.
44. Menter A, Strober BE, Kaplan DH, Kivelevitch D, Prater EF, Stoff B, et al. Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with biologics. J Am Acad Dermatol. 2019;80(4):1029-72.
45. Coates LC, Soriano ER, Corp N, Bertheussen H, Callis Duffin K, Campanholo CB, et al. Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA): updated treatment recommendations for psoriatic arthritis 2021. Nat Rev Rheumatol. 2022;18(8):465-79.
46. Coates LC, Soriano ER, Corp N, Bertheussen H, Callis Duffin K, Campanholo CB, et al. Author Correction: Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA): updated treatment recommendations for psoriatic arthritis 2021. Nat Rev Rheumatol. 2022;18(12):734.
47. Singh JA, Guyatt G, Ogdie A, Gladman DD, Deal C, Deodhar A, et al. Special Article: 2018 American College of Rheumatology/National Psoriasis Foundation Guideline for the Treatment of Psoriatic Arthritis. Arthritis Rheumatol. 2019;71(1):5-32.
48. Ribeiro AL, Dullius L, Sartori NS, Azeredo-da-Silva A, Kohem CL, Coates L, et al. Challenges in the Management of Psoriatic Arthritis in Latin America: A Systematic Review. Clin Ther. 2023;45(9):860-7.
49. Gottlieb A, Gratacos J, Dikranian A, van Tubergen A, Fallon L, Emir B, et al. Treatment patterns, unmet need, and impact on patient-reported outcomes of psoriatic arthritis in the United States and Europe. Rheumatol Int. 2019;39(1):121-30.
50. Ossanai Schoenardie B, Oliveira Almeida R, Hanemann T, Ossanai Schoenardie A, Ribeiro AL, Catucci Boza J. Unmet needs in the

management of psoriasis in Latin America: a systematic review. An Bras Dermatol. 2024;99(2):244-58.

51. Murage MJ, Tongbram V, Feldman SR, Malatestinic WN, Larmore CJ, Muram TM, et al. Medication adherence and persistence in patients with rheumatoid arthritis, psoriasis, and psoriatic arthritis: a systematic literature review. Patient Prefer Adherence. 2018;12:1483-503.
52. Haroon M, Gallagher P, FitzGerald O. Diagnostic delay of more than 6 months contributes to poor radiographic and functional outcome in psoriatic arthritis. Ann Rheum Dis. 2015;74(6):1045-50.
53. Karmacharya P, Wright K, Achenbach SJ, Bekele D, Crowson CS, Ogdie A, et al. Diagnostic Delay in Psoriatic Arthritis: A Population-based Study. J Rheumatol. 2021;48(9):1410-6.
54. Menter A. Psoriasis and psoriatic arthritis overview. Am J Manag Care. 2016;22(8 Suppl):s216-24.
55. AEPSO. Quality of life study: patients with psoriasis and psoriatic arthritis. 2019.
56. Bautista-Molano W, Ibatá L, Martínez S, Chacón A. Burden of Disease in Psoriatic Arthritis in Latin America: a Systematic Literature Review. Clin Rheumatol. 2024;43(2):677-93.
57. Villani AP, Rouzaud M, Sevrain M, Barnetche T, Paul C, Richard MA, et al. Prevalence of undiagnosed psoriatic arthritis among psoriasis patients: Systematic review and meta-analysis. J Am Acad Dermatol. 2015;73(2):242-8.
58. Reisner DV, Johnsson FD, Kotowsky N, Brunette S, Valdecantos W, Eyerich K. Impact of Generalized Pustular Psoriasis from the Perspective of People Living with the Condition: Results of an Online Survey. Am J Clin Dermatol. 2022;23(Suppl 1):65-71.
59. Mustonen A, Mattila K, Leino M, Koulu L, Tuominen R. Psoriasis causes significant economic burden to patients. Dermatol Ther (Heidelb). 2014;4(1):115-24.
60. Maya-Rico AM, Londoño-García Á, Palacios-Barahona AU, Jimenez-Tamayo SB, Muriel-Lopera E. Out-of-pocket costs for patients with psoriasis in an outpatient dermatology referral service. An Bras Dermatol. 2021;96(3):295-300.
61. Lopes N, Dias LLS, Azulay-Abulafia L, Oyafuso LKM, Suarez MV, Fabricio L, et al. Humanistic and Economic Impact of Moderate to Severe Plaque Psoriasis in Brazil. Adv Ther. 2019;36(10):2849-65.
62. WHO. More than half a billion people pushed or pushed further into extreme poverty due to health care costs: WHO; 2021 [Available from: https://www.who.int/news/item/12-12-2021-more-than-half-a-billion-people-pushed-or-pushed-further-into-extreme-poverty-due-to-health-care-costs].
63. Antonazzo IC, Gribaudo G, La Vecchia A, Ferrara P, Piraino A, Cortesi PA, et al. Cost and Cost Effectiveness of Treatments for Psoriatic Arthritis: An Updated Systematic Literature Review. PharmacoEconomics. 2024;42(12):1329-43.
64. Pourali SP, Nshuti L, Dusetzina SB. Out-of-Pocket Costs of Specialty Medications for Psoriasis and Psoriatic Arthritis Treatment in the Medicare Population. JAMA Dermatol. 2021;157(10):1239-41.
65. van de Kerkhof PC, Reich K, Kavanaugh A, Bachelez H, Barker J, Girolomoni G, et al. Physician perspectives in the management of psoriasis and psoriatic arthritis: results from the population-based Multinational Assessment of Psoriasis and Psoriatic Arthritis survey. J Eur Acad Dermatol Venereol. 2015;29(10):2002-10.
66. Argentina.gob.ar. My SSSalud [Available from: https://www.sssalud.gob.ar/misssalud/].
67. Argentina.gob.ar. PAMI National Institute of Social Services for Retirees and Pensioners [Available from: https://www.argentina.gob.ar/pami].
68. AEPSO. Report World Psoriasis Day. 2024.
69. IFPA. Inside Psoriatic Disease: Mental Health 2022 [Available from: https://ifpa-pso.com/resources-tools/inside-psoriatic-disease-mentalhealth].
70. Hedemann TL, Liu X, Kang CN, Husain MI. Associations between psoriasis and mental illness: an update for clinicians. Gen Hosp Psychiatry. 2022;75:30-7.
71. Alberta Netcare EHR 2024 [Available from: https://www.albertanetcare.ca/].
72. eHealth Saskatchewan 2025 [Available from: https://www.ehealthsask.ca/].
73. eChart Manitoba 2025 [Available from: https://echartmanitoba.ca/].
74. Connecting Ontario 2024 [Available from: https://www.drdh.org/connectingontario].
75. CareConnect British Columbia's EHR 2025 [Available from: https://my.careconnect.ca/].
76. Newfoundland & Labrador Centre for Health Information HEALTHe NL 2025 [Available from: https://www.nlchi.nl.ca/index.php/ehealth-systems/healthe-nl].
77. Dossier Santé Québec (DSQ) 2025 [Available from: https://www.quebec.ca/sante/vos-informations-de-sante/dossier-sante-quebec/a-propos].
78. Nova Scotia Canada SHARE, Secure Health Access Record 2021 [Available from: https://novascotia.ca/dhw/ehealth/share/].
79. Health PEI Electronic Medical Record – for Patients 2025 [Available from: https://www.princeedwardisland.ca/en/information/health-pei/electronic-medical-record-for-patients].

80. New Brunswick's Electronic Health Record (EHR) An Initiative of eHealthNB 2016 [Available from: https://hpspub.gnb.ca/EHR/Pages/EHRAccess.aspx].
81. Tarride JE, Prajapati VH, Lynde C, Blackhouse G. The burden associated with generalized pustular psoriasis: A Canadian population-based study of inpatient care, emergency departments, and hospital- or community-based outpatient clinics. JAAD Int. 2023;12:90-8.
82. Fernández-Ávila DG, Prada-Vanegas JD, De la Espriella MC, Barahona-Correa JE, Charry LP, Cuellar I. Frequency of use and annual costs of biological therapy for psoriasis in Colombia in 2019. International Journal of Dermatology. 2024;63(11):e296-e301.
83. Bhutani T, Farberg AS. Clinical and Disease Burden of Patients with Generalized Pustular Psoriasis: A Review of Real-World Evidence. Dermatol Ther (Heidelb). 2024;14(2):341-60.
84. Wu JJ, Pelletier C, Ung B, Tian M. Real-world treatment patterns and healthcare costs among biologic-naive patients initiating apremilast or biologics for the treatment of psoriasis. J Med Econ. 2019;22(4):365-71.
85. Pilon D, Teeple A, Zhdanava M, Ladouceur M, Ching Cheung H, Muser E, et al. The economic burden of psoriasis with high comorbidity among privately insured patients in the United States. Journal of Medical Economics. 2019;22(2):196-203.

## Appendix A:

# Additional information

### Table 7: Eligibility criteria for included records from the literature review

| Category | Inclusion criteria | Exclusion criteria |
|---|---|---|
| **Population** | People with Psoriatic Disease | |
| **Outcomes** | • Evidence of a public awareness campaign<br>• Evidence of perceived discrimination<br>• Information on Psoriatic Disease training programs for primary-care practitioners (PCPs) or general practitioners (GPs)<br>• Existence of treatment guidelines for Psoriatic Disease<br>• Evidence of tools or support for Psoriatic Disease medication adherence<br>• Evidence of patient reported outcome (PRO) use in clinical setting<br>• Estimates for time between presentation to health care and a Psoriatic Disease diagnosis<br>• Measures of access to medicines<br>• Measures of access to specialist care<br>• Estimates of direct and indirect costs of Psoriatic Disease care to the economy<br>• Estimates of health system spending on Psoriatic Disease care | |
| **Study design** | • Published literature: books and documents, classical article, evaluation study, government publication, guideline, news, observational study, patient education handout, periodical index, practice guideline, review, systematic review, validation study<br>• Grey literature: reports, guidelines, campaign literature, official publications | Interventional studies |
| **Language** | English* | |
| **Countries** | Argentina, Canada, Colombia, Panama, United States | |
| **Time limit** | 1st February 2019 - 31st October 2024** | |
| **Text limit** | Available in full text | |

*Note that the primary literature search included only English records. IFPA member associations provided additional records in languages other languages than English which were either translated by the local IFPA member organizations or through Google Translate; **Additional ad hoc searches were conducted through December 2024 to update gaps for some of the indicators.

## Table 8: Outcomes of interest for data extraction in the literature review

| Category | |
|---|---|
| Metadata | • QID (unique record identifier)<br>• Title<br>• Authors<br>• Publication year<br>• Journal / publishing institution |
| Study characteristics | • Study design<br>• Location setting<br>• Study objectives (description)/ Aim of the study<br>• Comparator information |
| Involved indicators | • Binary variable for information on Public Awareness indicator<br>• Binary variable for information on Provider Awareness indicators<br>• Binary variable for information on Patient Engagement indicators<br>• Binary variable for information on Health Systems indicators<br>• Binary variable for information on Enabling Environment indicators |
| Public Awareness | • Evidence of previous public awareness campaign (yes/blank)<br>• Name, promoter, and description of the campaign(s)<br>• Evidence of current public awareness campaign (yes/blank)<br>• Name, promoter, and description of the campaign(s)<br>• Evidence of perceived discrimination |
| Provider Awareness | • Evidence of organization providing resources and training for PCPs on PsO management (yes/blank)<br>• Evidence of core, professional curriculum training available for PCPs on PsO management (yes/blank)<br>• Evidence of treatment guidelines incorporating topicals (yes//blank)<br>• Evidence of treatment guidelines incorporating conventional systemics (yes//blank)<br>• Evidence of treatment guidelines incorporating biologics (yes//blank)<br>• Evidence of treatment guidelines incorporating severity (yes//blank)<br>• Evidence of treatment guidelines incorporating features beyond severity (e.g., location) (yes/ /blank)<br>• Evidence of treatment guidelines incorporating a stepped approach to therapy (yes/ /blank) |
| Patient Engagement | • Evidence of support for medication adherence in people with PsO (yes/ blank)<br>• Evidence that patients' physical well-being (e.g., comorbidity) is / should be investigated in clinic (yes/blank)<br>• Evidence that patients' mental well-being is / should be investigated in clinic (yes/blank)<br>• Evidence of use of PROs in clinical settings (yes/blank) |
| Health Systems | • Estimated time to diagnosis (months)<br>• Proportion of the WHO Model List of Essential Medicines indicated for PsO or PsA available<br>• Proportion of biologic medicines available in formularies (reimbursed or insurance) compared to what was approved by the local regulatory body<br>• Estimate for access to medicines, defined as those available in formularies (reimbursed or insurance) compared to what was approved by the local regulatory body<br>• Proportion of patients who visit a dermatology specialist<br>• Proportion of patients who visit a rheumatology specialist Proportion of patients who visit a psychology or psychiatry specialist |
| Enabling Environment | • Direct costs used in estimate of economic burden (e.g., healthcare contacts, prescribed medication, OTC medication)<br>• Estimate of direct costs to the economy (USD)<br>• Indirect costs used in estimate of economic burden (e.g., work loss, transportation, etc.)<br>• Estimate of indirect costs to the economy (USD)<br>• Proportion of GDP spent on PsO healthcare (%, direct)<br>• Proportion of GDP spent on PsO healthcare (%, indirect) |

**Key:** GDP = Gross domestic product, PCPs = Primary care physicians, OTC = Over the counter, PROs = Patient reported outcomes, PsO = Psoriasis, QID = Quantify identification number, USD = United States dollar

## Appendix B

# Methods (details)

## Literature reviews

A targeted literature review identified academically published literature and grey literature (defined as information not formally published in scholarly journals, such as guidelines or reports) to identify relevant evidence. Records were collected from the following sources for each country:

- A structured search of academic literature in PubMed
- Complementary Google searches to identify grey literature for each indicator category
- Grey literature material provided by local IFPA member associations

The review of academic literature utilized a set of Medline search facets based on a set of eligibility criteria specified beforehand in the study protocol (see appendix A, Table 7 for details).

The searches were implemented, all records were collected, and duplicates were removed before starting the review process. A reviewer screened each record's title and abstract (or equivalent summary text) for relevance. Relevant records were retained, and their full text reviewed. Information relevant to the indicators was extracted from each article into a data grid to facilitate the data synthesis process. The outcomes of interest for the extraction were specified in the study protocol (see appendix A, Table 8 for details).

The complementary Google searches utilized a set of 25 key-word searches based on the eligibility criteria, one for each of the five indicator categories in each of the five countries (5x5).

## Stakeholder interviews

In addition to the literature review, a series of interviews were conducted to collect evidence about the progress towards implementing the recommendations listed in the WHO Global Report on Psoriasis for each indicator across each of the five countries. To provide a comprehensive perspective on each indicator, six types of stakeholders were identified for recruitment including people living with psoriatic disease, dermatologists with a clinical practice, rheumatologists with a clinical practice, nurse practitioners, academic researchers, and GPs.

Each country's local IFPA member organization recruited six stakeholders for an interview in each of the five countries (a total of 30 planned interviews). A total of 25 interviews were completed, including five people living with psoriatic disease, five academic researchers, five dermatologists, and five rheumatologists (100% of the target for each group), along with three nurses and two GPs.

A discussion guide was developed as part of the protocol, including standardized questions, tailored to each stakeholder type, which were asked to each stakeholder. The guide was used for each one-hour interview and subsequently used to validate the answers provided. Similar to the literature review, the stakeholders' interview responses were collected in a data grid for use in the data synthesis.

**Key:** GP = General practitioner

# Index scoring

The scores applied in the index utilized a pragmatic 1 (lowest rating) to 3 (highest rating) scale to assess progress for each indicator. Table 9 provides the criteria for each of the indicators, which were applied to the evidence for each country in order to generate an index score.

### Table 9: Criteria for index scores

| # | Indicator title | Index scores |
|---|---|---|
| | **Public awareness** | |
| 1 | Existence of a public awareness campaign | 1. A public awareness campaign does not exist<br>2. There has been a campaign, but not in the past 12 months<br>3. There is a public awareness campaign that is currently active, or has been active in the past 12 months |
| 2 | Discrimination | 1. Patients perceive significant amounts of discrimination of those with psoriatic disease leading to emotional and/or economic harm<br>2. Patients experience some discrimination, but it is not pervasive in their life or causing significant emotional or economic harm<br>3. Patients experience little to no discrimination |
| | **Provider awareness** | |
| 3 | Availability of diagnostic and management training for PCPs (primary care professionals) on psoriatic disease | 1. There is no training available for PCPs on psoriasis<br>2. An organization (e.g. patient society) provides resources and training for PCPs on psoriasis available that must be sought out<br>3. There is training for PCPs on psoriasis as part of the core professional curriculum or as part of continuing medical education |
| 4 | Availability of treatment guidelines | 1. No treatment guidelines available<br>2. Treatment guidelines exist but do not include considerations beyond physician-rated severity<br>3. Treatment guidelines include topicals, conventional systemics and biologics. They are suitable for the treatments available in the country and include decision criteria beyond severity (e.g. location) |
| | **Patient engagement** | |
| 5 | Tools or support for medication adherence | 1. No support for medication adherence exists<br>2. Support for medication adherence exists, but it's not specific to psoriatic disease<br>3. There is support specifically for medication adherence for people with psoriatic disease |
| 6 | Patient-centric investigation of well-being | 1. Patient well-being is not investigated in clinics<br>2. Certain dimensions of patient well-being are assessed (e.g. screening for PsA but not mental health), possibly through the administration of PROs<br>3. Patient well-being is assessed through conversation with the patient including physical and mental dimensions, possibly through the administration of PROs |
| | **Health systems** | |
| 7 | Time to diagnosis | Time estimates and average ratings from physicians and patients, combined with estimates from the literature |
| 8 | Access to medicines | 1. There are significant barriers to patients' access to medicines, including any of the following: a portion of essential treatments not approved or available for sale, high out-of-pocket costs, prescriber hesitation, long wait times for meeting a prescriber<br>2. There are some barriers to patients' access to medicines (e.g., higher costs, prescriber hesitation, long-wait times, missing treatments), but the majority of patients can access the desired treatments.<br>3. There are minimal barriers to patients' access to medicines. Though some complications exist (e.g., distance, supply issues, some costs), almost all patients can access the appropriate treatments for their disease. |
| 9 | Access to specialist care | 1. There are significant barriers for patients to access specialist care, including: high costs, lack of available specialists, long wait times<br>2. There are some barriers for patients to access specialist care (e.g., costs, personnel shortages, long waits) but the majority of patients don't have issues<br>3. Patients can access dermatologists, rheumatologists, psychiatrists and/or psychologists with minimal barriers |
| | **Enabling environment** | |
| 10 | Direct and indirect costs for patients and the system | 1. Low system-wide spending for psoriatic disease care and/or high economic burden for patients<br>2. Medium system-wide spending for psoriatic disease care and/or some economic burden for patients<br>3. High system-wide spending for psoriatic disease care and/or low economic burden for patients |

**Key:** PCPs = Primary care physicians, PROs = Patient reported outcomes, PsO = Psoriasis

IFPA
GLOBAL LEADER IN FIGHTING
PSORIATIC DISEASE