

Psoriasis & Primary Care Report

Beyond Gatekeeping:
Effective Primary Care Support
in the Management of Psoriasis
& Psoriatic Arthritis



Introduction & Context

Health care costs are rising at an unsustainable rate due to a confluence of factors such as ageing populations and a growing double-burden of infectious and non-communicable diseases (NCDs) in low- and middle-income countries (LMICs). By 2050, the world's population aged 60 or more is expected to reach 2 billion.ⁱ As a result, health care expenditures globally are expected to increase.ⁱⁱ Compounding the cost-pressures imposed by ageing populations, the global burden of chronic diseases is rising alongside demographic shifts—such as rapid urbanization—between 1990 and 2007, the proportion of NCDs increased in prevalence from 19 percent to 35 percent,ⁱⁱⁱ and now represent 71 percent of all deaths globally.^{iv} A report by *The Lancet* published in 2017 shows that urbanization has had a negative impact on the number of people living with NCDs worldwide—the report estimates that two-thirds of the global population will live in cities by 2030,^v resulting in widespread negative impacts on health. People living in urban areas tend to have a more sedentary life and a poorer diet, which are risk factors for hypertension, diabetes, and other NCDs.^{vi}

If the global community is to realize its commitments to universal health coverage (UHC) and to health and well-being for all, health systems will need to embrace new models of care delivery for diagnosing, treating, and managing people living with chronic conditions. Psoriasis and psoriatic arthritis are representative of many chronic diseases in that they require long-term care, access and adherence to treatment, psychosocial support, and coordination across multidisciplinary care providers. Further, people living with psoriasis and psoriatic arthritis are at a higher risk of developing one or more additional NCDs, such as cardiovascular conditions and diabetes. The systemic nature of psoriasis and psoriatic arthritis, coupled with their impact on mental health and links to other co-morbidities, mean that these conditions are particularly well-suited for diagnosis and, as appropriate, management in primary care settings. Further, a primary care-coordinated approach to psoriasis and psoriatic arthritis management—wherein a specialist leads on disease treatment approaches, but a primary care provider ensures adequate consideration and management of co-morbidities and facilitates linkages to social support—could serve as an instructive benchmark and point of reference in the development of similar care models for managing other chronic non-communicable diseases.

Defining the Impact of Psoriasis & Psoriatic Arthritis

Psoriasis—an inflammatory and immune-mediated disease that causes red, scaly patches on the skin and intense itching—^{vii} is common and increasing in incidence.^{viii} More than 100 million people worldwide live with psoriasis,^{ix} and a population-based study in the United States found that the prevalence of plaque psoriasis almost doubled between 1990 and 2000.^x Further, up to 39 percent of people with psoriasis go on to develop psoriatic arthritis.^{xi} Psoriatic arthritis, also an immune-mediated disease, is characterized by joint pain, stiffness and swelling.^{xii} The condition can lead to joint destruction and disability if left untreated.^{xiii} Both psoriasis and psoriatic arthritis are unpredictable, and symptoms can flare and clear without warning.^{xiv} The conditions are chronic and systemic, meaning that they can last for the entire duration of a person’s life and impact multiple body systems due to immune dysregulation and inflammation.

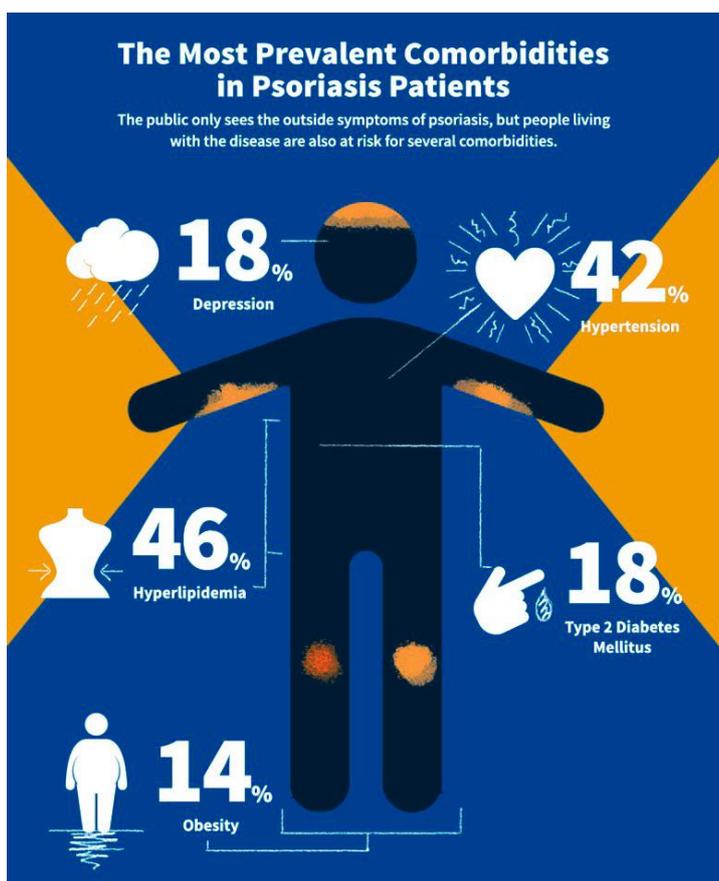


Figure 1: the five most common co-morbidities in people living with psoriasis: hyperlipidemia, hypertension, type 2 diabetes mellitus, depression and obesity.

Source: Shah K, Mellars L, Changolkar A, & Feldman SR. “Real-world burden of comorbidities in US patients with psoriasis.” August 2017. Available at: [https://www.jaad.org/article/S0190-9622\(17\)30426-7/fulltext](https://www.jaad.org/article/S0190-9622(17)30426-7/fulltext)

Adding to the patient and societal burden of psoriasis and psoriatic arthritis, the conditions are also associated with many co-morbidities, the most common being inflammatory bowel disease, obesity, diabetes, cardiovascular disease, several cancer types, and depression.^{xv} As such, people living with psoriasis and psoriatic arthritis are likely to be affected by at least one additional non-communicable chronic condition—for example, ischemic heart disease affects around 24 percent people with psoriasis, compared with 17 percent of people without psoriasis.^{xvi} Similarly, one study demonstrated that while diabetes mellitus was present in 30 percent of examined patients with psoriasis, only about 20 percent of the general population without psoriasis present with diabetes mellitus.^{xvii} Psoriatic arthritis patients, in particular, show

elevated levels of inflammatory cardiovascular markers as can be confirmed through subclinical ultrasonographic findings.^{xviii}

Moreover, the chronic and systemic nature of psoriasis, coupled with its visible lesions on the skin, can be devastating to quality of life for those affected with the condition. People living with psoriasis often feel stigmatized^{xix xx}—in fact, one survey in Ireland found that 93 percent of people with psoriasis have felt embarrassed by their skin, with 77 percent indicating that they have “wanted to hide away” because of their condition.^{xxi} Intimate relationships are also affected, with 54 percent of respondents reporting that psoriasis has a negative impact on their love lives.^{xxii}

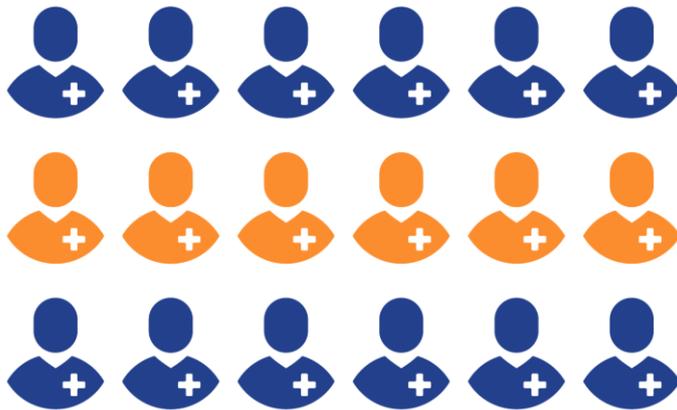


37% of people with psoriasis report up to 10 lost work days in the past 3 months due to clinical assessment or treatment

In addition to the physical and psychosocial burden on patients, psoriasis and psoriatic arthritis have a real impact on health systems and economies: on an annual basis, psoriasis results in \$23 billion in indirect costs in the United States alone, because of reduced quality of life and lost productivity.^{xxiii} Psoriasis has the capacity to significantly negatively impact patients’ work life, with about 37 percent of people with psoriasis reporting between three and 10 lost work days in the past three months due to clinical assessment or treatment, and 35 percent of patients reporting having reduced earning potential because of their psoriasis.^{xxiv} Further, nearly one-third of people with psoriatic arthritis claim either short-term or permanent disability.^{xxv}

Understanding Today's Key Challenges in Care Provision for Psoriasis & Psoriatic Arthritis

Health workforce shortages are persistent and present a major barrier to the effective care and management of all non-communicable diseases, including psoriasis. The WHO estimates a shortfall of 18 million health workers that must be filled in order to attain universal health coverage commitments.^{xxvi}



**Shortfall
of 18 million
health workers**

For people living with psoriasis and psoriatic arthritis, access to health workers with dermatological or rheumatological expertise can create barriers to care-seeking efforts. In LMICs, health worker shortages are dire—the country of Uganda has only ten dermatologists to serve a 35 million people,^{xxvii} and in Ethiopia there are only 70 dermatologists for 100 million people.^{xxviii} By comparison, Australia has over 500 dermatologists for 26 million people.^{xxix} However, well-resourced health systems also struggle to provide equitable access to dermatologists. Across all settings, regardless of income level, patients living in rural areas are less likely to receive adequate dermatological care than patients living in urban settings.^{xxx} A 2017 survey in the United States revealed that 40 percent of dermatologists practice in the 100 densest urban areas, while only 10 percent practice in rural areas.^{xxxi}

A combination of health workforce shortages and an insufficient knowledge of and education on psoriasis and psoriatic arthritis diagnosis amongst clinicians, both in primary care and dermatology, can result in treatment delays. Delays in initiating treatment is common for patients with moderate-to-severe psoriasis—dermatologists in the United States, Canada, France, Germany, Italy, Spain, and the United Kingdom have publicly acknowledged that psoriasis is chronically undertreated and that patient treatment needs are currently going unmet.^{xxxii} In the United States, insurance claims data analysis shows that approximately 60 percent of eligible patients with moderate-to-severe psoriasis had not received therapy in the 12 months prior to the evaluation, and that 33 percent had not received treatment within the previous five years.^{xxxiii} Psoriatic arthritis, in particular, has historically

gone both underdiagnosed and undertreated—it is thought that more than half of those suffering from psoriatic arthritis are currently unrecognized.^{xxxiv}

Even when patients do access and begin treatment, ensuring ongoing adherence is a challenge. Literature suggests that about 40 percent of psoriasis patients do not follow their treatment as they should.^{xxxv} Illustrating this point, a study in the United Kingdom reported that nearly half of outgoing patients with psoriasis do not redeem their initial prescription.^{xxxvi} Medication adherence to control, monitor, and hopefully improve psoriasis is especially critical given the chronic nature of the condition—the management of clinical symptoms and reduction of disease severity is dependent upon good adherence over time.^{xxxvii}



Less than half of primary care physicians and cardiologists are aware of increased cardiovascular co-morbidities in people with psoriasis

Once a person living with psoriasis or psoriatic arthritis is diagnosed and placed on treatment, there remains an ongoing need for care providers to monitor treatment efficacy and screen for common co-morbidities and coordinating care for these co-morbidities when appropriate. Unfortunately, the identification and management of common co-morbidities often goes overlooked or is insufficiently coordinated. The identification and management of common NCD co-morbidities is another major challenge. A 2015 study revealed that less than half of dermatologists screen for hypertension, dyslipidemia, or diabetes in patients with psoriasis.^{xxxviii} Another study confirmed that primary care physicians and cardiologists are similarly falling short in the management of co-morbidities in psoriasis patients—less than half of primary care physicians and cardiologists were even aware of increased cardiovascular co-morbidities in psoriasis patients.^{xxxix}

Depression is another common and yet often overlooked co-morbidity for people living with psoriasis and psoriatic arthritis. People with psoriasis are 1.5 times more likely to experience depression compared to those without psoriasis,^{xl} with anywhere from 9 to 55 percent of psoriasis patients exhibiting depressive symptoms. Adding to the challenge, psoriasis patients experiencing depression

may reduce adherence to psoriasis treatment regimens, resulting in a vicious cycle wherein their psoriasis is exacerbated with worsened depression and vice versa.^{xli} Clinical judgment of depression in psoriasis patients has been shown to be poor amongst dermatologists, with one study revealing that dermatologists' clinical judgment has a specificity and sensitivity for depression of 60 percent and 21 percent, respectively.^{xlii} In practical terms, this means that only in 39 percent of consultations involving psychologically distressed patients did the dermatologist raise a concern and explore the issue.^{xliii}

People living with psoriasis and psoriatic arthritis have multi-faceted and ongoing care needs that benefit from centralized coordination and an integrated approach to treatment that takes the whole person into account. As specialists, dermatologists have historically received inadequate training on the mental health needs of psoriasis patients, and are ill-positioned or may not have the time available to screen for and coordinate the ongoing access to NCD services that many psoriasis patients require because of their increased risk of developing chronic conditions. Further, health workforce shortages and access constraints mean that many people around the world are left without any access at all to dermatology specialists, and experience potentially devastating treatment delays.

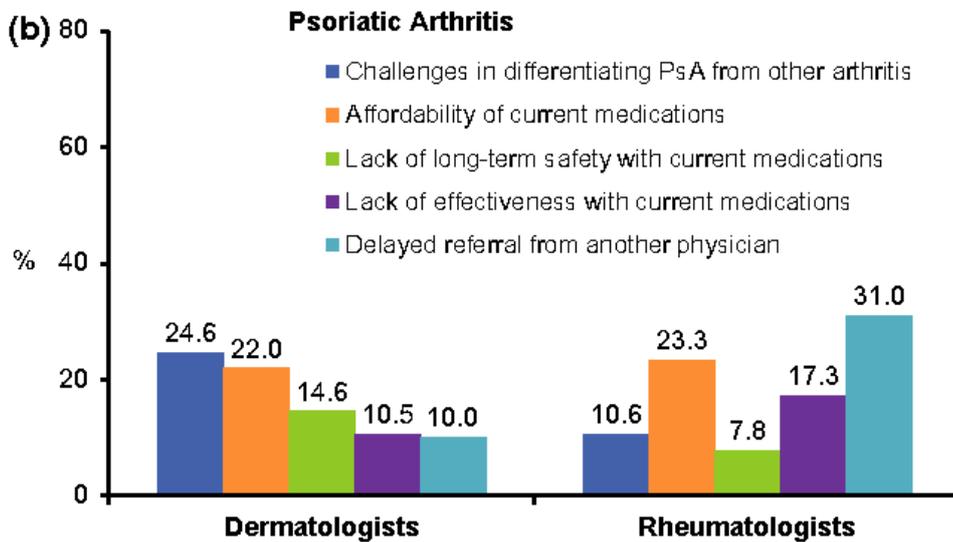
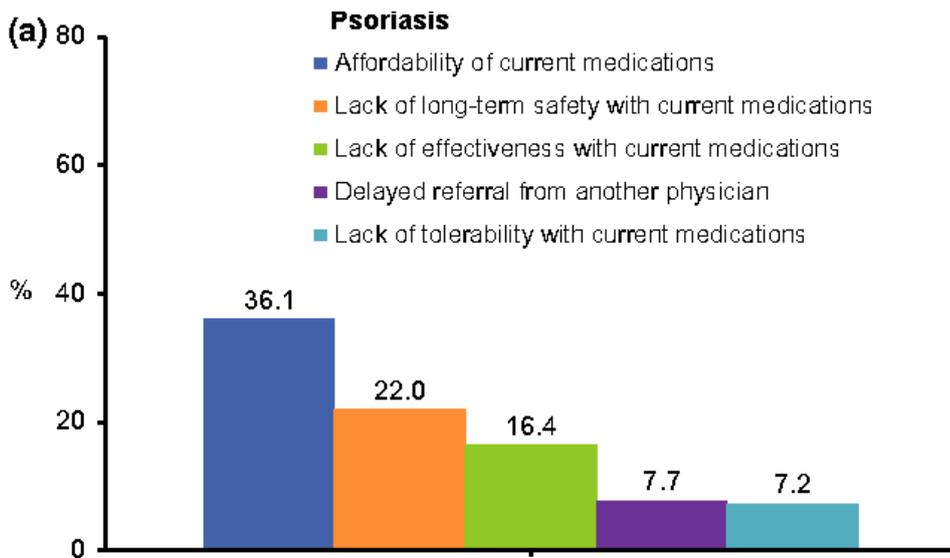


Figure 2: Greatest challenge in managing psoriasis (a) and psoriatic arthritis (b). In particular, graph (b) shows that the biggest challenge for people living with psoriatic arthritis is for their dermatologists and rheumatologists to differentiate between psoriatic arthritis and other arthritis.

Source: Van de Kerkhof VCM, Reich K, Kavanaugh A, Bachelez H, Barker J, Girolomoni G, Langley RG, Paul CF, Puig L, & Lebwohl MG. "Physician perspectives in the management of psoriasis and psoriatic arthritis: results from the population-based Multinational Assessment of Psoriasis and Psoriatic Arthritis survey." October 2015. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5029592/>

Leveraging Primary Care Systems to Provide Integrated, Well-Coordinated & Efficient Care to Psoriasis & Psoriatic Arthritis Patients

From a practical perspective, the majority of people with skin conditions first seek care at the primary level—in fact, across the world, skin disease is a primary trigger for seeking medical help.^{xliv} And, indeed, most patients seek initial evaluation and treatment for psoriasis and psoriatic arthritis from their primary care provider.^{xlv}



Most patients seek initial evaluation and treatment for psoriasis and psoriatic arthritis from their primary care provider

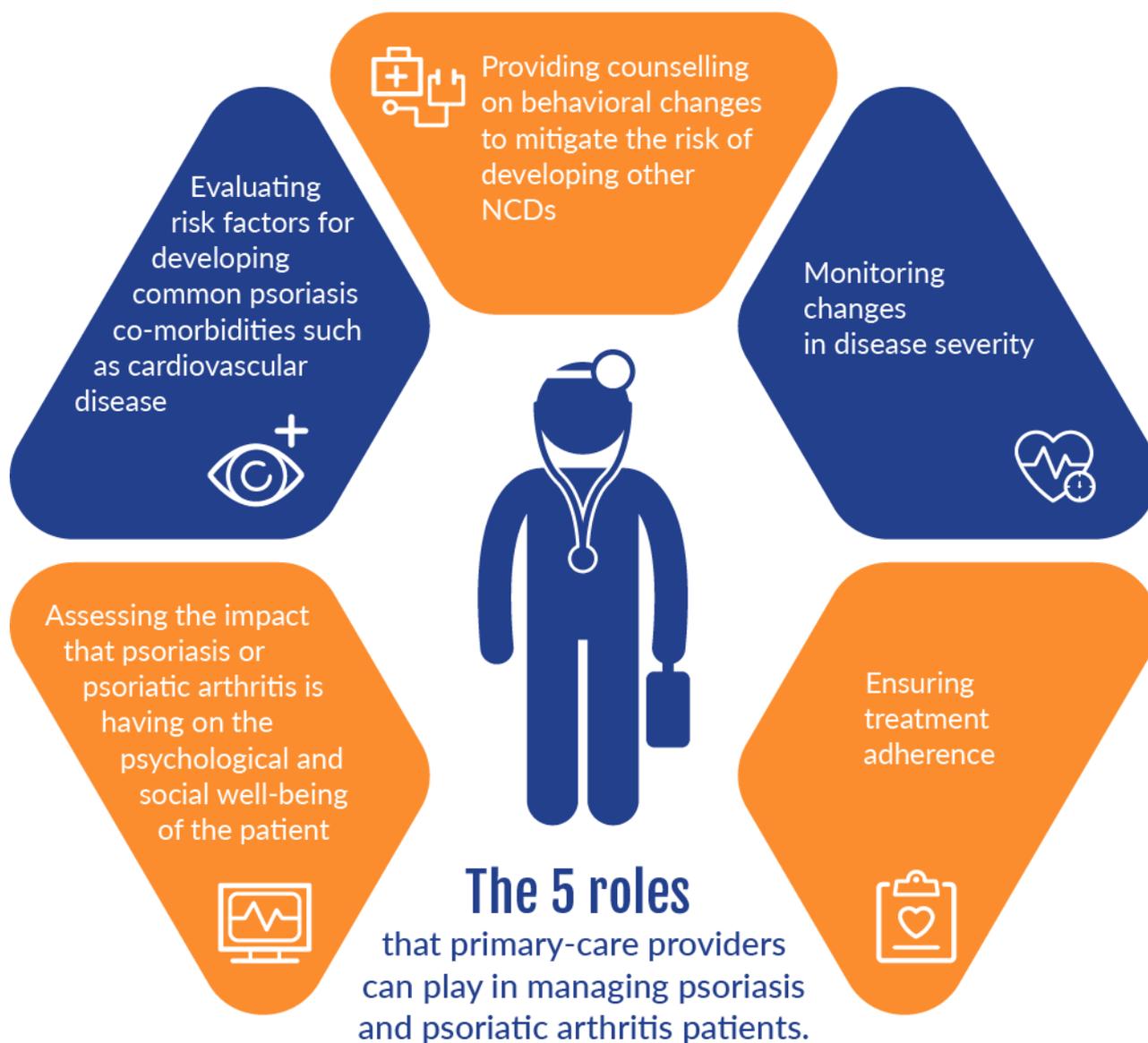
In some settings, like the United Kingdom, the majority of people with psoriasis continue their disease management through a primary care practice,^{xlvi} while in the United States only 22 percent of people have their psoriasis or psoriatic arthritis managed by their primary care provider.^{xlvii} A primary care-coordinated approach to psoriasis and psoriatic arthritis disease management recognizes the key role that primary care providers can play in ensuring an integrated approach—cognizant of co-morbidities and psychosocial well-being—to care. It is important to note that specialists are still best positioned to lead on initiating psoriasis and psoriatic arthritis treatment, and ought to be the care lead when it comes to developing a treatment plan; however, primary care providers are uniquely well-suited to coordinate the multitude of other related care needs that psoriasis and psoriatic arthritis patients require.

Defining Integrated & People-Centered Health Services:

The World Health Organization defines integrated people-centered health services as those systems that put people and communities, not diseases, at the center of health systems, and empower people to take charge of their own health rather than being passive recipients of services.

Source: World Health Organization. "Service Delivery and Safety." Available at: <https://www.who.int/servicedeliverysafety/areas/people-centred-care/ipchs-what/en/>

Primary care is foundational to all health systems and an integrated and people-centered primary health service has the ability to leverage a multi-disciplinary and dispersed care teams to meet community needs. Further, primary care providers are uniquely positioned at the center of a psoriasis patient's care journey in a way that allows them to screen for common psoriasis co-morbidities and ensure that patients are linked to appropriate specialist care and community support resources. Managing psoriasis through a primary care-centric model offers a valuable opportunity to increase the number of patients reached with person-centered, integrated psoriasis care interventions that are key to health and well-being, while mitigating the need for often unavailable specialist interventions.



Given the high-touch nature of primary care, primary care providers can play a central role on an ongoing basis in monitoring changes in disease severity, evaluating risk factors for developing common psoriasis co-morbidities such as cardiovascular disease, providing counselling on behavioral changes to mitigate the risk of developing other NCDs, ensuring treatment adherence, and assessing the impact that psoriasis or psoriatic arthritis is having on the psychological and social well-being of the people affected.^{xlviii}

The importance of continuity of care and integrated treatment approaches are increasingly understood and emphasized in health systems^{xlix}, and primary care providers are uniquely positioned to follow patients with one or more chronic diseases and deliver advice on mitigating risk factors, and to coordinate interactions with specialists.¹ Because of their position on the frontlines of the health system, primary care providers play a central coordinating role wherein they leverage their line-of-sight into all of a patient’s co-morbidities and specialist interactions to ensure an integrated approach. This is especially critical when managing patients with psoriasis who are likely to suffer

from one or more co-morbidities while also balancing mental health concerns. Moreover, because they provide higher-touch and higher-frequency care, primary care providers are well-positioned to provide counselling on healthier choices associated with better psoriasis and co-morbidity outcomes; they can provide advice on reducing risk factors for certain co-morbidities.^{li}

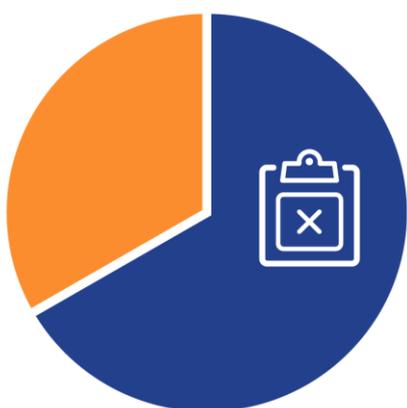
Primary care providers can also offer support for treatment adherence, an opportunity that should be seized in the context of psoriasis where widespread treatment dissatisfaction is common—a study by the National Psoriasis Foundation revealed that more than half of all people with psoriasis are dissatisfied with their current treatment regimen.^{lii} Given their frequent interactions with patients, primary care providers can monitor patients for signs of dissatisfaction with treatment and worsening symptoms and can then serve as a communication liaison between the patient and their dermatologist or rheumatologist.^{liii} Serving as such a liaison helps to manage the patient’s treatment preferences, ensure that treatment is being escalated when necessary, and ideally makes it easier for patients to adhere to prescribed treatment protocols.^{liv} Finally, primary care providers are likelier to be embedded in communities, as opposed to concentrated in urban areas, helping to alleviate access barriers presented by dermatologist shortages.

Recommendations for Advancing the Management of Psoriasis in a Primary Care-Centric Model

1

Embed increased education on all dermatological conditions, generally, and psoriasis, specifically, within training programs for primary care providers.

Skin conditions are incredibly common, and most often lead to people presenting with a condition to go and access primary care settings—for example, during a two-year study in one primary care practice in the United States, 37 percent of patients who presented had at least one skin problem, and, in 59 percent of cases it was their chief complaint.^{lv} The situation is similar in LMICs: in Ethiopia, up to 53 percent of survey respondents affirmed that they had some kind of skin disease.^{lvi} Despite the overwhelming prevalence of skin conditions in primary care patients, primary care providers are often ill-equipped to diagnose or manage dermatological conditions.



A Saudi Arabia-based evaluation revealed that more than 2/3 of primary healthcare physicians demonstrated insufficient knowledge regarding common dermatological conditions

A Saudi Arabia-based evaluation revealed that more than two-thirds of primary healthcare physicians demonstrated insufficient knowledge regarding common dermatological conditions.^{lvii} Primary care provider knowledge of psoriasis is correspondingly deficient—a 2013 study in the United Kingdom reported that patients perceived general practitioners to be lacking in confidence in the assessment and management of psoriasis, and general practitioners themselves reported feeling unreliable in knowledge and understanding about the condition.^{lviii}

Training programs have been found to be useful tools in increasing primary care provider knowledge and skills for diagnosing and managing dermatological conditions—a 2013 telemedicine pilot reported that 95 percent of participating primary care providers found continuing education classes on dermatology diagnosis and treatment topics useful.^{lix} And, a 2011 project utilized a short postgraduate training course for enhancing primary care providers’ knowledge of dermatological issues.^{lx} It increased provider confidence in the diagnosis of dermatological conditions from 62 percent to 91 percent, and their confidence in the management of skin conditions from 58 percent to 88 percent.^{lxi} Course participants also reported increasing their attention to patients with dermatological issues after completing the course, representing a meaningful shift in mindset.^{lxii}



- ▶ **Training Programs**
- ▶ **University Education**
- ▶ **Telemedicine**

Today, evidence suggests primary care providers are not sufficiently linking existing psoriasis diagnoses to new patient complaints of musculoskeletal pain, limiting early treatment initiation. Illustrating the shortfall, one study showed that 47 percent of psoriasis patients being managed in a primary care setting had undiagnosed psoriatic arthritis.^{lxiii}

2

Launch a special education campaign for primary care providers on the recognition of psoriatic arthritis

Effective treatment options for psoriatic arthritis exist, and a growing number of scientific studies now affirm that early diagnosis substantially improves treatment outcomes.^{lxiv} As most people living with psoriasis are likely to first visit their primary care provider if they begin to experience musculoskeletal pain, enhanced primary care provider understanding of psoriatic arthritis has the potential to unlock earlier referrals and timelier treatment initiation.^{lxv}



47 percent of psoriasis patients being managed in a primary care setting had undiagnosed psoriatic arthritis

3

Enhance co-morbidity screening, behavior change, and care coordination efforts

Primary care providers have not yet adequately realized their potential and position as frontline health providers with high-touch relationships with people with psoriasis and psoriatic arthritis. The use of enhanced screening guidelines, prompting primary care providers to conduct common co-morbidity screenings with psoriasis patients on a regular basis could meaningfully enhance care outcomes and promote an integrated approach to care.

Additionally, there is evidence that primary care providers are routinely missing opportunities to hold personalized discussions with patients on cardiovascular disease risk and behavior change.^{lxvi} Primary care providers report a lack of training in conducting behavior change conversations with psoriasis patients, despite an expressed interest in patients to discuss cardiovascular risk reduction.^{lxvii}



4

Implement clear guidelines on when a referral to a specialist is necessary

Studies show a significant variation in the referral rates among primary care practices, suggesting a lack of understanding amongst primary care providers on when a dermatologist referral is necessary. Fortunately, evidence shows that guidelines on the management of psoriasis in primary care can improve rates of appropriate referrals—a study in the UK demonstrated that health centers equipped with guidelines on psoriasis management were significantly more likely to appropriately refer patients along to specialists.^{lxviii}

5

Further explore of the management of psoriasis through a multidisciplinary primary care team approach

Patient respondents to a United Kingdom-based survey indicated that they feel that adequate support is not available to those experiencing emotional distress, affirming the care gaps that currently exist for people living with psoriasis and psoriatic arthritis.^{lxix}

People with psoriasis are also unlikely to receive the screenings, counselling, or referrals that would help to mitigate and address the heightened NCD risks faced by people living with psoriasis and psoriatic arthritis. Emerging models seek to address these broken care pathways by encouraging a team-based approach to patient care with collaboration among primary care providers and specialists, so primary care providers are empowered to work in partnership with various specialties to ensure that patients' integrated care needs are met.^{lxx} For example, cooperative clinics and co-

A United Kingdom-Based Dermatology Nurse Specialist Speaks to the Benefits of Primary Care-Led Care:

“Many people live with visible chronic skin conditions and nursing intervention and support can make a huge difference to all areas of a person's life. There is always room to improve dermatology care, but I think delivering an equitable, accessible service led by competent practitioners in primary care is the way forward for many dermatology patients.

Source: Nursing in Practice. “Setting up a dermatology service in primary care: a conversation with Nicola Ball, Dermatology Nurse Specialist at Bristol Community Health.” Accessed July 2019. Available at: <https://www.nursinginpractice.com/article/setting-dermatology-service-primary-care>

management via tele-dermatology are two innovative models for promoting a multi-disciplinary team-based approach.^{lxxi}

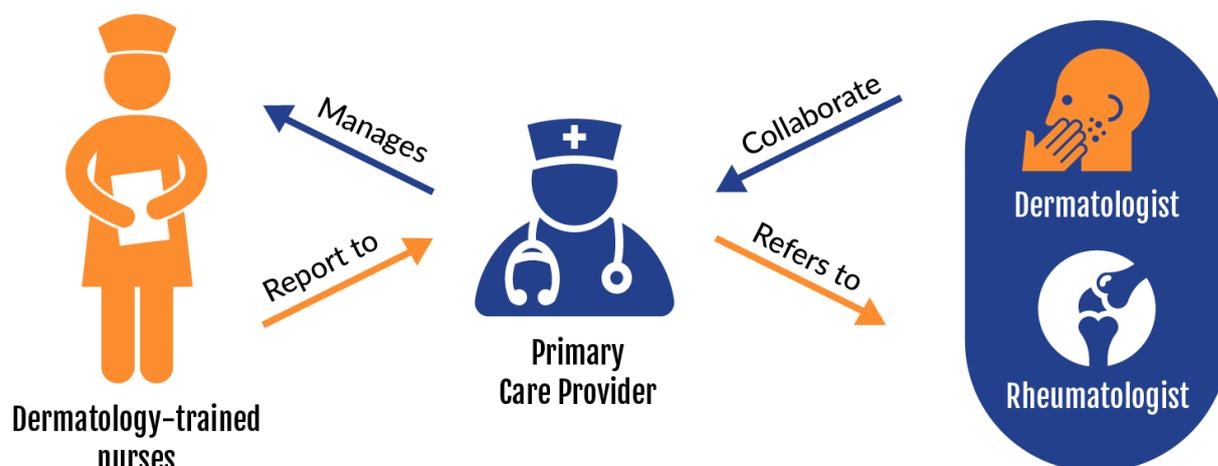


Figure 3: Example of a collaborative care team where the primary care provider is in charge of dermatology-trained nurses that conduct most of the care for psoriasis and psoriatic arthritis patients. The primary care provider refers patients to dermatologists and rheumatologists when needed.

Other models include the utilization of general practitioners with special interests (GSPI) in dermatology who supplement their generalist role with the ability to deliver high-quality care for skin conditions.^{lxxii} Nurse-led services are another means of improving healthcare provision for dermatology patients in primary care settings. Nurses prescribing for skin conditions must be provided with appropriate dermatological training. After training, these specialized nurses have been proven to be able to provide high-quality and competent care to psoriasis patients, in some cases even issuing prescriptions for treatment.^{lxxiii}

Case Studies

Health systems around the world are exploring new approaches for managing dermatological conditions—while some countries have embraced new models at the highest organizational level, others are exploring smaller pilot programs in disciplines such as tele-dermatology. The evidence-based examples captured here represent just a selection of existing innovative models for leveraging the power of primary care providers for managing psoriasis and psoriatic arthritis in a way that boosts access and improves patient outcomes.

Hospital Italiano de Buenos Aires, Argentina^{lxxiv}

At the Hospital Italiano de Buenos Aires in Argentina, the care of patients with psoriatic arthritis is led by the rheumatology unit, which works in congress with the dermatology and orthopedic surgery units. At the time of this study, the patient pool consisted of 380 patients from the Buenos Aires area.

This case exemplifies the power of digital tools such as electronic medical records and ultrasound; the importance of specialized nurses; and the potential of collaborative care and peer education.

- *Electronic Medical Records:* The Hospital Italiano has designed an electronic medical records system that's used throughout the hospital and at other centers within their network. This ensures that everyone has access to the same patient information, and that the system (which has been designed in-house) is customized to meet patient needs.
- *Increasing Diagnosis Rates:* Rheumatologists work with GPs within their network to raise their awareness about psoriatic arthritis, train them on how to identify symptoms of the disease and educate them about co-morbidities associated with psoriatic arthritis. The training is provided via grand rounds with rheumatologists, journal clubs, and seminars. Rheumatologist sonographers also hold clinics specifically for ultrasound assessments wherein digital tools are utilized to improve the accuracy of psoriatic arthritis diagnoses.
- *Collaborative Care:* This clinic offers a unique model of psoriatic arthritis care, wherein patients are seen by a rheumatologist and a dermatologist simultaneously—since psoriatic arthritis affects both the skin and the joints. This allows the physicians to share their experience, cross-check their findings, and better treat the more difficult cases of psoriatic arthritis. The Hospital Italiano also belongs to the same health maintenance organization as a number of other hospitals and community health centers, which makes for faster referrals and closer physician relationships.

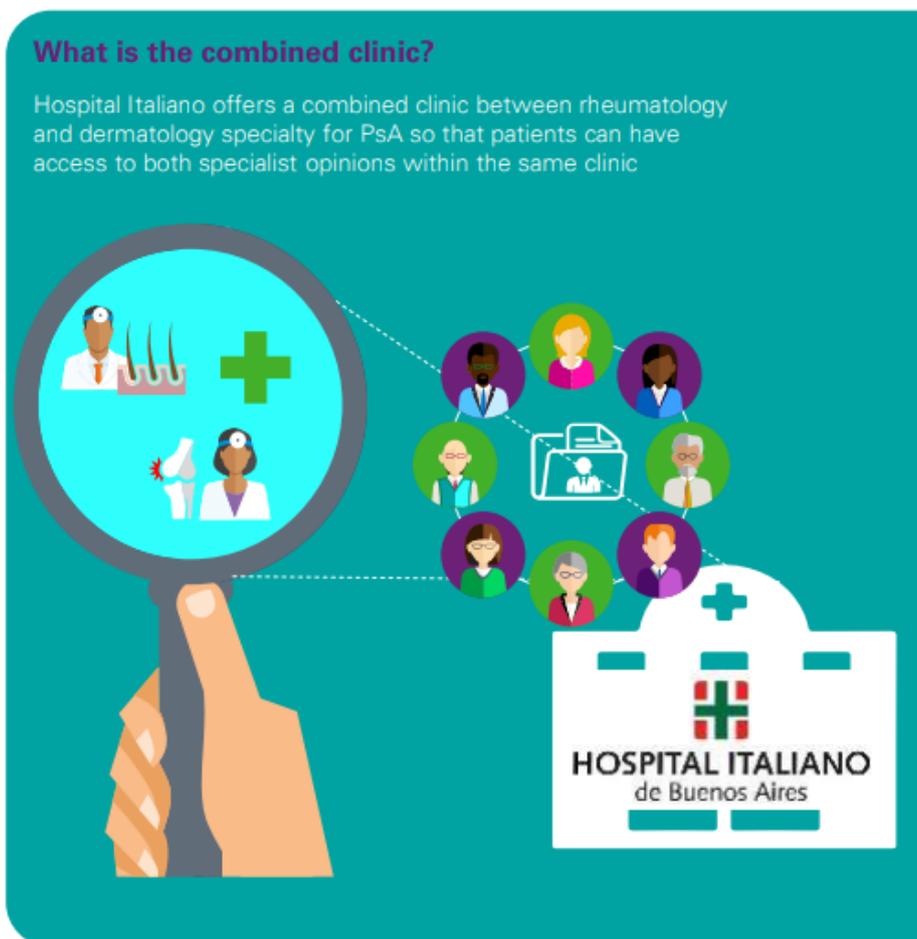


Figure 4: A model of a combined clinic based on Hospital Italiano, where psoriasis arthritis patients have access to rheumatology and dermatology specialists within the same clinic.

Source: KPMG. “Improvement in the management of psoriatic arthritis.” 2016. Available at: <https://home.kpmg/content/dam/kpmg/uk/pdf/2017/01/improvement-management-psoriatic-arthritis.pdf>

- *Peer Education:* The Hospital Italiano dedicates two and a half days per year to inviting rheumatologists all over the world to conduct preceptorships. The hospital also trains medical students. This enables doctors from other hospitals and specialties to recognize psoriatic arthritis; improves awareness; and spreads the latest learnings far and wide.

The African Teledermatology Project, Sub-Saharan Africa^{lxv}

Between February 2007 and February 2009, the Africa Teledermatology Project analyzed 345 consultations from clinical sites in 13 sub-Saharan African nations. These consultations were conducted through the telederm.org platform, a free-access telemedicine site. The site allows clients to store and forward their medical cases for experts to review, discuss, and diagnose. It also presents an educational curriculum for experts, which was built out using the Project’s findings.

The Project analyzed a multitude of factors—such as patient age and HIV status, location, clinical complaints, tests and biopsies, outcomes, and response times—from the beginning to the end of the consultation process. From this analysis, the Project found that telemedicine is an effective and accessible method for the diagnosis and management of many dermatological conditions, including psoriasis.

Telemedicine facilitated access to assistance for patients, and access to educational materials for local providers. It also proved its potential to decrease health inequities in resource-limited regions, even in the face of cultural, economic, and technological limitations—by giving patients access to expert medical opinions in an area where the population outnumbers doctors by 100,000 to one, and by increasing local healthcare providers’ knowledge and continuing education, all in a cost- and time-effective way.

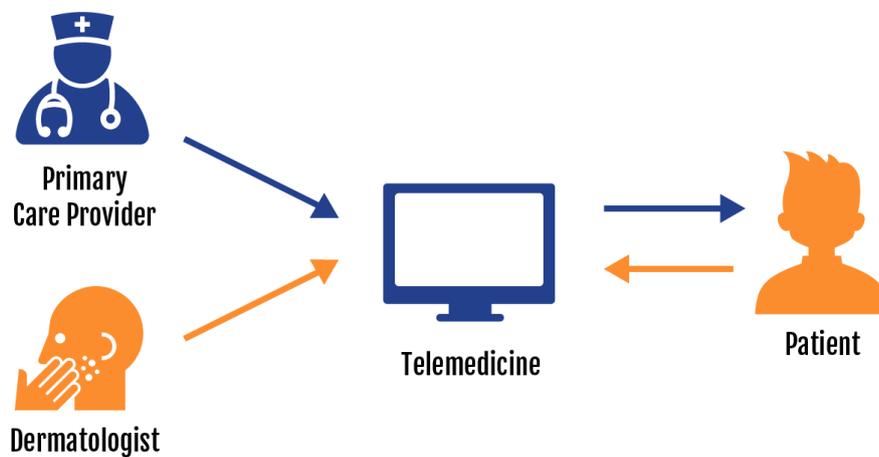


Figure 5: Telemedicine can help under-resourced regions to educate primary care providers, specialists and more generally health workers about dermatology, allowing patients to have access to proper disease management.

St. Thomas Health Center, United Kingdom^{lxvii}

St. Thomas' Medical Group conducted a study to examine the benefits of using a primary care dermatology liaison nurse, as opposed to a general practitioner. The study, a cost consequence study alongside a randomized controlled trial, spanned four months and 109 adult participants, each with a diagnosis of psoriasis or eczema. Forty-six of those participants visited a clinic with a practice nurse, who had been trained by St. Thomas's dermatology department. The remaining 54 participants visited GPs and served as a control.

The cost consequence study assumed that the nurse would run one clinic per week, seeing nine patients on average twice, and that GP consultation costs would be reduced more or less by that

“ I have found my problems concerned with dermatology too trivial to bother my GP with, but it was eye-opening to discuss these issues with the nurse, and satisfying to find help and advice relating to everyday problems.

A patient from the intervention group in the St. Thomas Health Center study, United Kingdom.

same amount. Due to its size and duration, the study ignored costs incurred by patients and prescriptions—although patients who visited the nurse clinic did end up using fewer topical steroids and more simple emollients.

Overall, the study found significant improvement in the quality of life of people who visited the nurse's clinic. Patients from the intervention group remarked, “I have found my problems concerned with dermatology too trivial to bother my GP with, but it was eye-opening to discuss these issues with the nurse, and satisfying to find help and advice relating to everyday problems,” and, “I have always felt until now that I had no right to ask for help, but this has been made OK.”

Conclusion: Moving Beyond Gatekeeping

Primary care providers are uniquely positioned to address many of the barriers associated with the effective and integrated management of psoriasis and psoriatic arthritis. And, as dermatologist workforce shortages are complex and persistent across geographies, a primary care-led approach to psoriasis and psoriatic arthritis care has the potential to unlock access for communities that have historically been underserved and undertreated. Expanded access to integrated, and people-centered care for those living with psoriasis and psoriatic arthritis directly advances global commitments to universal health coverage and health and well-being for all. In recognition of these contextual realities, WHO recommends a primary care-led approach to psoriasis care in its 2016 official report on the disease^{lxxvii}—in fact, WHO is increasingly advocating for enhanced attention to all skin conditions in primary care settings. Also, in 2016, WHO issued an official recommendation on dermatological training for health professionals in primary care settings, stating, “education on common chronic skin conditions should be included in undergraduate medical and nursing curricula and in-service training for physicians in primary care, to increase early diagnosis and prevent disability.”^{lxxviii}

A General Practitioner Issues a Call-to-Action to their Peers on Managing Skin Conditions:

“ There are far few dermatologists and that is not going to change in the near future. Thus, patients rely on their GPs and primary care teams to have or gain knowledge of diagnosis and management of common skin diseases and lesions. Patients tell us we are not doing well enough and those of us with influence over medical training have a duty to raise our game and equip future and existing GPs with the skills and empathy to improve patient care.

Source: Kownacki S. *British Journal of General Practice*. 2014. Available at: <https://bjgp.org/content/64/625/380.full>

Today, too many primary care providers play a simple “gatekeeping” role in psoriasis and psoriatic arthritis care, wherein they provide ad hoc referrals to specialists for further evaluation. Rarely are primary care providers managing psoriasis and psoriatic arthritis as complex chronic conditions, sharing treatment regimens with specialists, or incorporating appropriate monitoring and considerations of co-morbidities and psychosocial impacts into their ongoing consultations with patients.^{lxxix} In order to transform primary care providers from gatekeepers to leaders in the coordination of psoriasis and psoriatic disease care, health systems, and medical training programs will need to adopt enhanced education and training on psoriasis and psoriatic arthritis, along with innovative new multidisciplinary care models. People living with psoriasis and psoriatic arthritis deserve access to high-quality, integrated, and person-centered care that addresses the physical and psychosocial aspects of their disease to help safeguard their health and well-being while living with a chronic condition.

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