

# Skin Diseases as a Global Public Health Priority

## *No UHC Without Skin Health For All*

May 2024

### Introduction

Skin diseases cause a huge burden within the global context of health. In the Global Burden of Disease (GBD) Studies 2010 and 2013 they collectively formed the world's fourth leading cause of nonfatal burden<sup>1,2</sup> and in the most recent 2021 Study they ranked as the eight leading cause.<sup>3</sup> They affect individuals in all age groups and are one of the most common reasons that people seek help from a health worker.<sup>4</sup> Skin diseases affect people of all age groups and all skin colours in all countries irrespective of the income levels. Differential access to health care influences early detection, diagnosis and outcome of treatment.

Although various efforts have highlighted some individual skin diseases,<sup>5-8</sup> there has never been a concerted effort to recognise the healthcare burden of skin diseases as a whole. **Under Pillar 1 of Universal Health Coverage, (SDG indicator 3.8.1), the proposal outlined here is to accelerate programmatic action to reduce the incidence, prevalence, morbidity, disability and death from skin diseases.** This document has been co-developed by a broad coalition of member states, civil society organizations including patient organizations, healthcare professionals, academia and philanthropies which are committed to taking comprehensive action on the global public health impact of skin diseases. It seeks to provide a summary of the key issues facing vulnerable individuals and communities and a set of potential actions to help support and inform member state negotiations on a potential World Health Assembly resolution. The full list of member states and organizations supporting this draft document can be found on the last page (Annex A). As additional member states and organizations join this effort, the latest iterations will be made available here [insert hyperlink].

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<sup>1</sup> Hay RJ, Johns NE, Williams HC *et al.* The global burden of skin disease in 2010: an analysis of the prevalence and impact of skin conditions. *J Invest Dermatol* 2014 Jun; **134**:527-34. PMID: 24166134.

<sup>2</sup> Karimkhani C, Dellavalle RP, Coffeng LE *et al.* Global skin disease morbidity and mortality: an update from the Global Burden of Disease Study 2013. *JAMA Dermatol* 2017; **153**:406-12. doi:10.1001/jamadermatol.2016.5538.

<sup>3</sup> Global incidence, prevalence, years lived with disability (YLDs), disability-adjusted life-years (DALYs), and health life expectancy (HALE) for 371 diseases and injuries in 204 countries and territories and 811 subnational locations, 1990 -2021: a systematic analysis for the Global Burden of Disease Study 2021. *Lancet* 2024; **403**:2133-61. ([https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)00757-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)00757-8/fulltext). Also see <https://www.healthdata.org/research-analysis/diseases-injuries-risks/factsheets/2021-skin-and-subcutaneous-diseases-level-2>, both last accessed 23 May 2024).

<sup>4</sup> Finley CR, Chan DS, Garrison S *et al.* What are the most common conditions in primary care? Systematic review. *Can Fam Physician* 2018; **64**:832-40. PMID:30429181 PMCID: PMC6234945.

<sup>5</sup> Leprosy resolution WHA 44.9: forty-fourth World Health Assembly 13 May 1991. World Health Organization.

<sup>6</sup> WHO Global report on psoriasis. 2016. [http://apps.who.int/iris/bitstream/10665/204417/1/9789241565189\\_eng.pdf?](http://apps.who.int/iris/bitstream/10665/204417/1/9789241565189_eng.pdf?) (Last accessed 19 Feb 2024).

<sup>7</sup> Addressing the burden of mycetoma. WHA 69.21 28 May 2016. [https://iris.who.int/bitstream/handle/10665/252801/A69\\_R21-en.pdf](https://iris.who.int/bitstream/handle/10665/252801/A69_R21-en.pdf). (Last accessed 19 Feb 2024).

<sup>8</sup> WHO informal consultation on a framework for scabies control, meeting report, WHO Regional Office for the Western Pacific, Manila, Philippines, 19–21 February 2019. <https://www.who.int/publications/item/9789240008069>. (Last accessed 19 Feb 2024).

### Public health significance

The full spectrum of skin diseases is very broad and includes allergies, inflammatory diseases, autoimmune diseases, genetic diseases, vascular diseases, cancers, infections (viral, bacterial and fungal) and rare autoinflammatory diseases. In addition to their physical symptoms and comorbidities, skin diseases can directly or indirectly cause mortality.<sup>9</sup>

In the Global Burden of Disease Study 2019 there were an estimated 4.86 billion new cases of skin and subcutaneous diseases globally.<sup>10</sup> The highest number of new cases and deaths from skin and subcutaneous diseases was in South Asia. Globally, most new cases were in the 0-4 year age group, low-middle socio-demographic index (SDI) states had the highest burden and this burden had increased since previous estimates. The most recent data from the GBD Study 2021 identified 4.69 billion incident cases.<sup>3</sup> Notably skin diseases are among the most commonly observed health conditions in refugees and displaced populations as a result of war, political and economic unrest and climate change.<sup>11</sup>

In psoriasis, the average patient's life-span is 6 years shorter compared to that of the population without a history of psoriasis, mainly due to the cerebro-cardiovascular complications. Scabies-related Group A *Streptococcus* bacterial skin infection is associated with long-term sequelae with significant systemic ramifications and is the main cause of post-streptococcal haematuria, glomerulonephritis, acute rheumatic fever and rheumatic heart disease in children from low-resource areas.<sup>12</sup> Lack of access to health services, cultural and superstitious beliefs and ignorance often lead to late diagnosis with accompanied complications. Lack of knowledge of basic principles of wound care means pressure ulcers or bedsores are a common cause of death in older, bed-ridden adults.<sup>13</sup>

### Socio-economic impact

Skin diseases often cause substantial stigma and psychological and socio-economic burdens,<sup>14-16</sup> not only for the people living with first-hand experience, but also for their relatives, caregivers and communities. Stigma is particularly marked for individuals with skin neglected tropical diseases (skin NTDs). These are a group of 11 WHO-designated neglected diseases which present with signs and symptoms on the skin, and include diseases such as Buruli ulcer, leprosy, lymphatic filariasis, leishmaniasis, mycetoma, fungal diseases and scabies.<sup>17</sup> In 2019 the estimated burden of disease for all types of skin and subcutaneous diseases was 42.9 million Disability Adjusted Life Years (DALYs), 95% of which were years lived with disability.<sup>10</sup> Similar data from the GBD 2021 Study, was 41.9 million DALYs, 93% of which were years lived with disability.<sup>3</sup> As a result of their high visibility, diseases of the skin affect people's mental health and their societal interactions more than diseases of any other organ of the body.

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<sup>9</sup> Yamanaka K. Skin Disease and Comorbidities. *J Clin Med* 2021 10:5754. doi: 10.3390/jcm10245754. PMID: 34945050; PMCID: PMC8707480.

<sup>10</sup> Yakupu A, Aimaier R, Yuan B *et al.* The burden of skin and subcutaneous diseases: findings from the global burden of disease study 2019. *Front Public Health* 2023; 11:1145513. doi: 10.3389/fpubh.2023.1145513.

<sup>11</sup> Dayrit JF, Sugiharto A, Coates S *et al.* Climate change, human migration, and skin disease: is there a link? *Int J Dermatol* 2022; 61:127-38. doi:10.1111/jid.15543.

<sup>12</sup> Engelman D, Kiang K, Chosidow O. *et al.* Towards the global control human scabies: introducing the International Alliance for the Control of Scabies. *PLoS Negl Trop Dis* 2013; 7(8):e2167. doi:10.1371/journal.pntd.0002167.

<sup>13</sup> World Health Organization. WHO Mortality Database: skin diseases. Available at: <https://platform.who.int/mortality/themes/theme-details/topics/topic-details/MDDB/skin-diseases#:~:text=Skin%20diseases%20include%20dermatitis%20and,as%20pressure%20ulcer%20or%20bedsores>. (Last accessed 19 Feb 2024).

<sup>14</sup> Koo J, Lebwohl A. Psychodermatology: the mind and skin connection. *Am Fam Physician* 2001 64:1873-8. PMID: 11764865.

<sup>15</sup> Ahmed A, Leon A, Butler DC, Reichenberg J. Quality-of-life effects of common dermatological diseases. *Semin Cutan Med Surg* 2013; 32:101-9.

<sup>16</sup> Seth D, Cheldize K, Brown D, Freeman EF. Global Burden of Skin Disease: inequities and innovations. *Curr Dermatol Rep* 2017; 6:204-10. doi: 10.1007/s13671-017-0192-7. PMID: 29226027; PMCID: PMC5718374.

<sup>17</sup> World Health Organization. Promoting the integrated approach to skin-related neglected tropical diseases. Available at <https://www.who.int/activities/promoting-the-integrated-approach-to-skin-related-neglected-tropical-diseases> (Last accessed 23 May 2024).

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## Human rights perspectives

International human rights agreements include the right to health, as recognized by the WHO's Constitution. In addition to persons with leprosy (Hansen's disease), persons affected by all forms of skin diseases and their family members have the right to the highest attainable standard of physical and mental health. In view of ongoing discrimination and violence to persons with leprosy, on 25<sup>th</sup> January 2024, the UN Special Rapporteur on the elimination of discrimination against persons affected by leprosy (Hansen's disease) and their family members, together with other UN experts, urged States and international organizations to incorporate into their policies and procedures the fundamental right of persons affected by leprosy to access high-quality support and care.<sup>18</sup> Similarly, persons living with albinism in Africa, not only suffer devastating skin cancers, leading to premature death, but they also currently face serious stigma and violence extending to human rights abuses.<sup>19</sup>

## Access to health services

Although access to health services is an important determinant of health outcomes, unfortunately there are widespread disparities in access to skin health services across different countries. This health 'gap' is more acute in low-resource countries and the global South but is a universal issue.

The large number of different skin diseases<sup>20</sup> contributes to the challenge non-specialists have in trying to achieve an accurate diagnosis and instigate correct treatment. This lack of specialized knowledge and skills is compounded by the general low public profile of skin diseases and insufficient financial resources for skin health services and research into skin diseases. Paradoxically, as a relatively small number of about 10 common general skin diseases make up the majority of all cases, with the right training and support, non-specialist local health teams could quite effectively address a high proportion of the overall global burden of skin diseases.<sup>21</sup>

Access to good quality, affordable and trained primary health care is key to addressing this burden of skin diseases in order to support a healthy population and achieve Universal Health Coverage. In low-resource sub-Saharan African countries, where there are only 0-3 dermatologists per million population,<sup>22</sup> a focus on equipping the primary care workers with basic dermatological skills is the most practical way to ensure appropriate triage and onward referral where necessary to the scant resource of specialized dermatology care.

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<sup>18</sup>United Nations. Persons affected by leprosy (Hansen's disease) must have access to the highest attainable standard of support and care: UN experts. <https://www.ohchr.org/en/press-releases/2024/01/persons-affected-leprosy-hansens-disease-must-have-access-highest-attainable>. (Last accessed 5 May 2024).

<sup>19</sup>Franklin A, Lund P, Bradbury-Jones C, Taylor J. Children with albinism in African regions: their rights to 'being' and 'doing'. *BMC Int Health Hum Rights* 2018; **18**:2. doi: 10.1186/s12914-018-0144-8. PMID: 29329540; PMCID: PMC5767025.

<sup>20</sup> American Academy of Dermatology. Dermatology: the burden of skin disease. Available at: <https://www.ncmedsoc.org/wp-content/uploads/2018/07/NCDA-AADA-LC-18-Burden-of-Skin-Disease.pdf> (Last accessed 19 Feb 2024).

<sup>21</sup>Brown DN, Langan SM, Freeman EE. Task shifting in dermatology: a call to action. *JAMA Dermatol* 2017; **153**:1179-80. doi: 10.1001/jamadermatol.2017.3342. PMID: 28903134; PMCID: PMC5906794.

<sup>22</sup> Mosam A, Todd G. Dermatology training in Africa: successes and challenges. *Dermatol Clin* 2021; **39**:57-71. ISSN 0733-8635, ISBN 9780323835541, <https://doi.org/10.1016/j.det.2020.08.006>.

General practitioners often lack medical training in the treatment and diagnosis of skin conditions. Even in the Global North, in Ireland, dermatology is not a mandatory part of general practitioner training.<sup>23</sup> Furthermore there are insufficient dermatologists in training – for example in France more than half of

practising dermatologists are over the age of 55, but the number of interns in training will not make it possible to stabilise numbers of dermatologists before 2041 at best, i.e. ten years after other specialties.<sup>24</sup>

In many settings, patients are often mis-diagnosed or undiagnosed, experience a poor quality of life, and lack access to appropriate treatments – either because none exist, or because they are unaffordable. Many of these conditions cannot be cured, meaning patients live with their chronic condition for their lifetime. For the many conditions diagnosed at birth this also impacts parents, families and caregivers.

Delays in accessing treatment and care can have serious implications for the general physical health of patients with skin disease, increasing the risk of developing associated complications, disability and comorbidities such as cardiovascular disease and arthritis.<sup>25,26</sup> Also, often complex and lengthy pathways must be navigated by patients to access appropriate care, with large inconsistencies among countries. Even within countries, unequal geographic distribution of specialist healthcare providers with most concentrated in the cities, contributes further to difficulties in accessing care for those living in remote areas.<sup>27</sup>

### **Journey from a mandate for skin NTDs to ‘No UHC Without Skin Health for All’**

Historically, vertical programmes were established to address some specific NTDs with little coordination or synergy between them. Furthermore, a common experience of large-scale skin campaigns or skin camps to target any particular skin NTD was that the vast majority of skin problems identified were for other, common, general skin diseases – a reflection of the vast, unmet skin disease burden in the community. Also, although treatment for the targeted skin NTD was usually free, patients with any other identified general skin condition often had to pay for treatment or remain untreated.

The WHO’s collaboration with dermatologists and researchers in skin diseases included a position paper in 2017,<sup>28</sup> which culminated in a WHO hand-manual for frontline healthcare workers “Recognizing Neglected Tropical Diseases through Changes in the Skin”.<sup>29</sup>

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<sup>23</sup>National Clinical Programme for Dermatology: a model of care for Ireland.

[www.hse.ie/eng/about/who/cspd/ncps/dermatology/resources/national-clinical-programme-for-dermatology-a-model-of-care-for-ireland.pdf](http://www.hse.ie/eng/about/who/cspd/ncps/dermatology/resources/national-clinical-programme-for-dermatology-a-model-of-care-for-ireland.pdf). Ireland’s National Model of Care (Dermatology). (Last accessed 19 February 2024).

<sup>24</sup>La dermatologie est au bord du precipice. [La Monde](#) (Last accessed 19 February 2024)

<sup>25</sup>Acosta Felquer ML, Logiudice L, Galimberti ML *et al.* Treating the skin with biologics in patients with psoriasis decreases the incidence of psoriatic arthritis. *Ann Rheum Dis* 2022; **81**:74–9.

<sup>26</sup>Gisondi P, Bellinato F, Targher G *et al.* Biological disease-modifying antirheumatic drugs may mitigate the risk of psoriatic arthritis in patients with chronic plaque psoriasis. *Ann Rheum Dis* 2022; **81**:68–73. doi:10.1136/annrheumdis-2021-219961.

<sup>27</sup>European Academy of Dermatology and Venerology. Call to Action on Chronic Inflammatory Skin Disease. 2023. <https://eadv.org/advocacy/call-to-action-chronic-inflammatory-skin-disease>. (Last accessed 19 February 2024)

<sup>28</sup>Mitja O, Marks M, Bertran L *et al.* Integrated control and management of neglected tropical skin diseases. *PLoS Negl Trop Dis* 2017. 11(1):e0005136. doi:10.1371/journal.pntd.0005136.

<sup>29</sup>World Health Organization. Recognizing Neglected Tropical Diseases through changes in the skin: a training guide for front-line health workers. (Asiedu K, ed). Geneva, Switzerland. 2018. CC BY-NC-SA 3.0 IGO. <https://www.who.int/publications/i/item/9789241513531>. (Last accessed 19 Feb 2024).

Subsequently this was developed into a diagnostic tool, the Skin NTD diagnostic phone app, which, critically, also includes 24 common general skin diseases.<sup>30</sup>

In 2020, the WHO published its road map for neglected tropical diseases 2021-2030,<sup>31</sup> setting out global targets to control, eliminate or eradicate NTDs as well as cross-cutting targets aligned with the Sustainable Development Goals. Two years later the WHO published a companion document on the strategic framework for integrated control and management of skin-related NTDs.<sup>32</sup> The strategic framework identified multiple potential areas for integration across several skin NTDs, including training and capacity-building, clinical and laboratory diagnosis, wound and lymphoedema management and self-care. **Both the NTD 2021 -2030 roadmap and its novel sister framework for skin NTDs have helped to shine a spotlight on a wide global public health problem – the extensive, unmet burden of *all* skin diseases in communities.**

A landmark occasion was the bringing together of all interested parties and agencies in a wide-ranging skin NTD meeting held in March 2023 in Geneva.<sup>33</sup> At the end of the meeting WHO Director-General Dr. Tedros Adhanom Ghebreyesus committed to ensuring that skin NTDs were better supported by WHO in terms of resources, policy and advocacy.

More recently, World Health Assembly Side Events and Briefing Meetings to address the challenges and opportunities relating to **all** skin diseases were held in May 2023 and March 2024 in anticipation of the **77<sup>th</sup> World Health Assembly Side Meeting on “Skin Diseases as a Global Public Health Priority: No UHC Without Skin Health” on 29<sup>th</sup> May 2024.** The need to be more cost-effective has accelerated a drive towards **integration of skin services right across the board.** Particularly in NTD-endemic countries, this now entails not only searching for opportunities for synergy between different skin NTD programmes, but also promoting incorporation of skin NTD care into routine health services’ provision for general skin diseases (where such services even exist). The policy will be more efficient and, it is hoped, will ultimately reduce stigma. This development now **requires strengthening of primary and higher levels of health care to accommodate previous unmet need, expand access and develop actionable resolutions to achieve “Skin Health for All” in order to achieve the target to deliver on UHC.**

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<sup>30</sup>Skin-related neglected tropical diseases: WHO launches new version of the WHO Skin NTDs mobile application. <https://www.who.int/news/item/09-10-2023-skin-related-neglected-tropical-diseases--who-launches-new-version-of-the-who-skin-ntds-mobile-application>. (last accessed 23 May 2024).

<sup>31</sup>World Health Organization. Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021-2030. Geneva, Switzerland. 2020. CC BY-NC-SA 3.0 IGO. <https://www.who.int/publications/i/item/9789240010352>. (Last accessed 23 May 2024).

<sup>32</sup>World Health Organization. Ending the neglect to attain the sustainable development goals: a strategic framework for integrated control and management of skin-related neglected tropical diseases. Geneva. Switzerland. 2022. CC BY-NC-SA 3.0 IGO. <https://www.who.int/publications/i/item/9789240051423> (Last accessed 23 May 2024).

<sup>33</sup>World Health Organization. WHO’s first global meeting on skin NTDs calls for greater efforts to address the burden. <https://www.who.int/news/item/31-03-2023-who-first-global-meeting-on-skin-ntds-calls-for-greater-efforts-to-address-their-burden>. (Last accessed 23 May 2024).

## Linkages to the WHO's departments

Optimizing WHO's focus on skin health would be far-reaching and include a cross-cutting approach of many of its existing departments including Control of Neglected Tropical Diseases; Non-Communicable Diseases; Maternal, Newborn, Child & Adolescent and Aging; Mental Health & Substance Abuse; Special Programme on Primary Health Care; Health Workforce; Environment, Climate Change and Health; Social Determinants of Health; UHC; Essential Medicines; Health and Migration; Antibiotic Resistance; Access to Medicines and Health Products; Health Promotion; Data and Analytics; Digital Health and Innovation and work on skin diseases of occupations such as skin cancers, ICD11, emerging and resistant infections and last, but not least, disability and rehabilitation.

## Potential Actions for Member States

Global leadership by Ministries of Health to address the public health burden and needs of people living with skin conditions will help to alleviate the unacceptable delays in diagnosis and gaps in available treatment that they experience. This will require the support of the WHO, donors, patient organizations, civil society groups, general health workers, community health workers and specialist dermatologists.

1. Guarantee **access to good quality and affordable care** in order to support a healthy population and **achieve Universal Health Coverage**. Strengthening the capacity of health workers especially at the primary health care level to manage common skin problems and rehabilitation programmes that specifically address **stigma** and **mental health** needs could be transformative. Local production of generic medication and other products for care should be expanded.
2. Develop **focused training for frontline healthcare workers** who so often struggle to diagnose and treat skin diseases like, psoriasis, atopic eczema, skin cancer and neglected tropical skin diseases like scabies, leprosy and Buruli ulcer. This training is central for strong, equitable, and resilient health systems and prevention of long-term poor health outcomes such as chronic inflammatory and infectious diseases, permanent disabilities and morbidity. In addition to traditional in-person training, teledermatology, online training tools and diagnostic mobile phone apps should be used to strengthen capacity.
3. **Strengthen capacity of personnel and improve laboratories**, especially in low-resource countries to build local effective and high-level diagnostic capacities.
4. **Champion empowerment of patients and their communities** by community involvement and role of community health workers, patient groups and former patients in community education to encourage early reporting of symptoms and to enable patients to contribute productively to society and importantly reduce overall cost to governments.
5. Identification of **research gaps** in diagnosis, disability management, wound care and to develop new and cost-effective therapies. This requires donor investment, governments' financial engagement as duty bearers and participation of industrial partners. Research can be delivered through universities, research and health institutions, with civil society and private sector linkages to spur innovation.
6. **Global skin health data repositories** to provide robust information on key diseases for health systems planning.

Focusing on this area of the highest unmet need – skin diseases – provides a clear pathway for the delivery of Universal Health Coverage where investing more and investing wisely will improve outcomes and reduce overall costs to health care systems – and indeed society.

**Call to Action:**

Supporting member states and organizations therefore intend to bring a resolution on skin diseases for the consideration of the 155th session of the Executive Board in January 2025. This will ensure that skin diseases are given more attention by Ministries of Health, the WHO and stakeholders. The proposed resolution calls for:

1. **Dedicated health investment to expand expertise**, particularly among primary health care workers to enable them to effectively diagnose and treat the populations living with skin diseases. Training can be delivered through a combination of expanded front-line health care training programmes bolstered by digital technology, the provision of continuing medical education, patient support, and research initiatives. In the long-term, the training of more specialist dermatologists will be needed to strengthen access to care. With the support of member states and their Ministries of Health and the WHO, as well as donors, private sector, professional dermatological bodies and patient organizations, these goals can be achieved. Of key importance in supporting the call will be capturing the experiences of, and challenges faced by member states in addressing skin diseases in their own national settings.

2. **Advocacy and funding for the expansion of research capacity** to provide innovative diagnostic tools and new treatments for skin diseases.

3. **Expand and strengthen global skin health databases** to inform planning needs and monitor progress.

This proposed resolution will support member states to effectively build capacities in case diagnosis, referral to both skin and mental health care pathways, access to medication and data collection. It will also strengthen the roles of the WHO in boosting coordinated and universal data collection tools, leading and facilitating skin-health research and improving healthcare training with resultant overall improved population economic activity.