

## Comparing skin research funding with skin disease burden

Distributing funding dollars to research is an important and daunting task. While many factors influence research-funding decisions, establishing a transparent, priority-setting system is paramount. This is particularly important for the National Institutes of Health, which invests over \$30 billion for medical research each year. Diseases that have the greatest impact on our population should receive the highest amounts of federal research dollars to most effectively reduce the disease burden of the population. The Global Burden of Disease Study (GBD) is an epidemiological effort to quantify the global burden of disease in a universal metric called disability-adjusted life years (DALYs). A DALY is basically a summation of years of life lost due to disability from a disease and years of life lost to an early death from a disease.

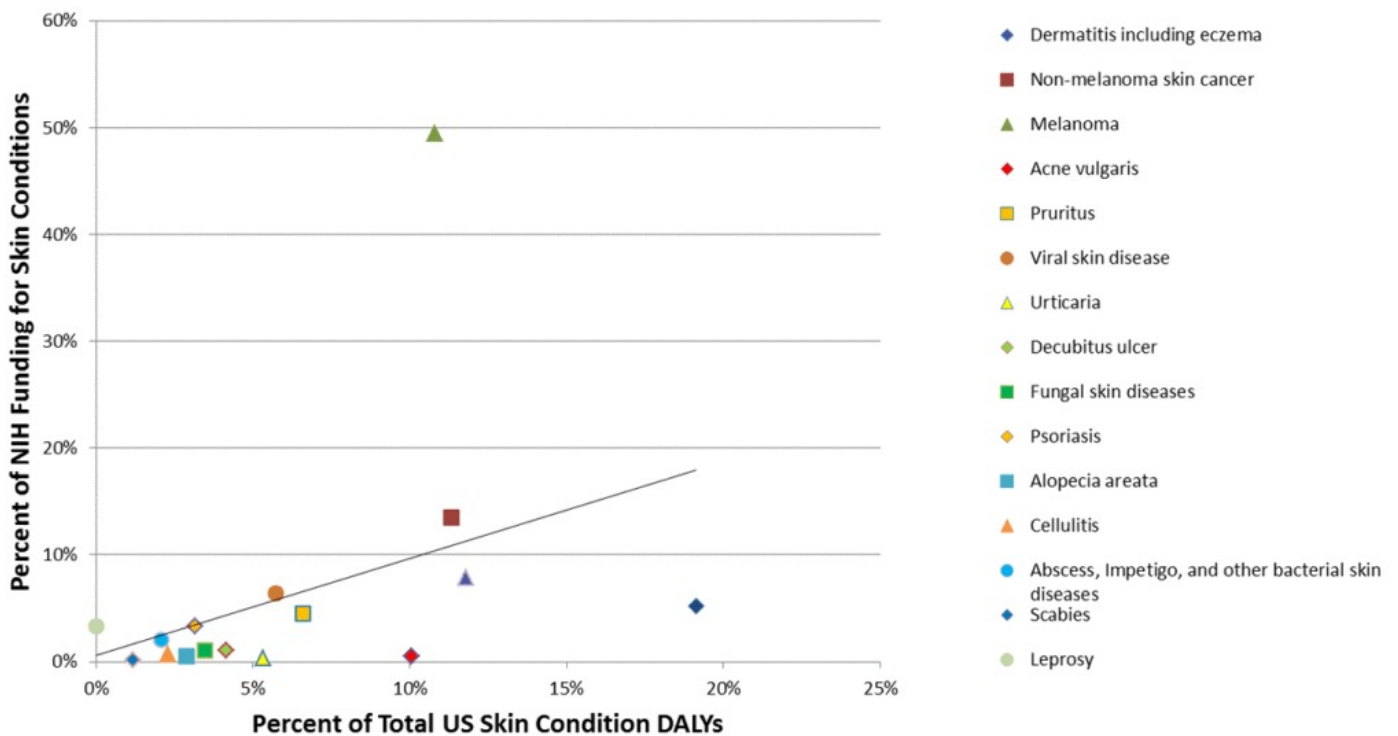


Fig. 1. Percentages of Total US Skin Condition DALY compared with percent of NIH funding for 15 skin conditions in the GBD Study

Focusing on our particular interest of dermatology, we investigated the 2012-2013 NIH funding for 15 skin diseases and matched these to their corresponding DALY score (Fig.1). Our results showed that melanoma, non-melanoma skin cancer, and leprosy were presumably over-funded by the NIH based on their DALY score and relative burden. In contrast, dermatitis, acne vulgaris, pruritus, urticaria, decubitus ulcer, fungal skin diseases, alopecia areata, cellulitis, and scabies

appeared under-funded. Three skin diseases, bacterial skin diseases, viral skin diseases, and psoriasis, were well-matched in terms of NIH funding and disease burden. Disease burden, especially as measured by the DALY score, is one of many factors that impact funding priorities. We hope that our investigation demonstrates the usefulness of high-quality disease burden metrics to inform priority-setting decisions for any funding center.

## **Publication**

[Comparing cutaneous research funded by the US National Institutes of Health \(NIH\) with the US skin disease burden.](#)

Hagstrom EL, Patel S, Karimkhani C, Boyers LN, Williams HC, Hay RJ, Weinstock MA, Armstrong AW, Dunnick CA, Margolis DJ, Dellavalle RP  
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