

# Social Determinants of Health and Quality of Life in Hidradenitis Suppurativa

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## INTRODUCTION

- Hidradenitis suppurativa (HS) is a chronic, painful inflammatory skin condition characterized by recurrent nodules, abscesses, and sinus tracts arising in intertriginous areas.
- HS imposes a profound and multidimensional burden encompassing persistent pain, social stigma, occupational disruption, and severely diminished quality of life (QoL).
- The mechanisms by which social determinants of health (SDOH) shape disease experience remain critically understudied.

## Objectives

- Evaluate the impact of HS on patient-reported physical and mental QoL vs. matched controls.
- Assess the influence of SDOH factors on QoL outcomes among HS patients.
- Characterize racial disparities in QoL within the HS population.

## METHODS

- Source:** All of Us Research Program — a diverse, nationwide longitudinal cohort.
- Matching:** 1:2 propensity score matching on age, sex, race, BMI, smoking status.
- QoL measure:** PROMIS Global Health v1.2 → T-scores (higher = better).
- Analysis:** Multivariable linear regression (full matched cohort + HS-only subset).
- SDOH examined:** Education, employment, income, insurance type, housing security.

## RESULTS

### Study population

1,748 HS patients	3,496 matched controls
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HS VS. MATCHED CONTROLS (β - COEFFICIENTS)

### HS independently lowers both QoL domains

$\beta = -2.76$   $p < 0.001$   
Physical Health T-score — HS vs. controls

$\beta = -2.11$   $p < 0.001$   
Mental Health T-score — HS vs. controls

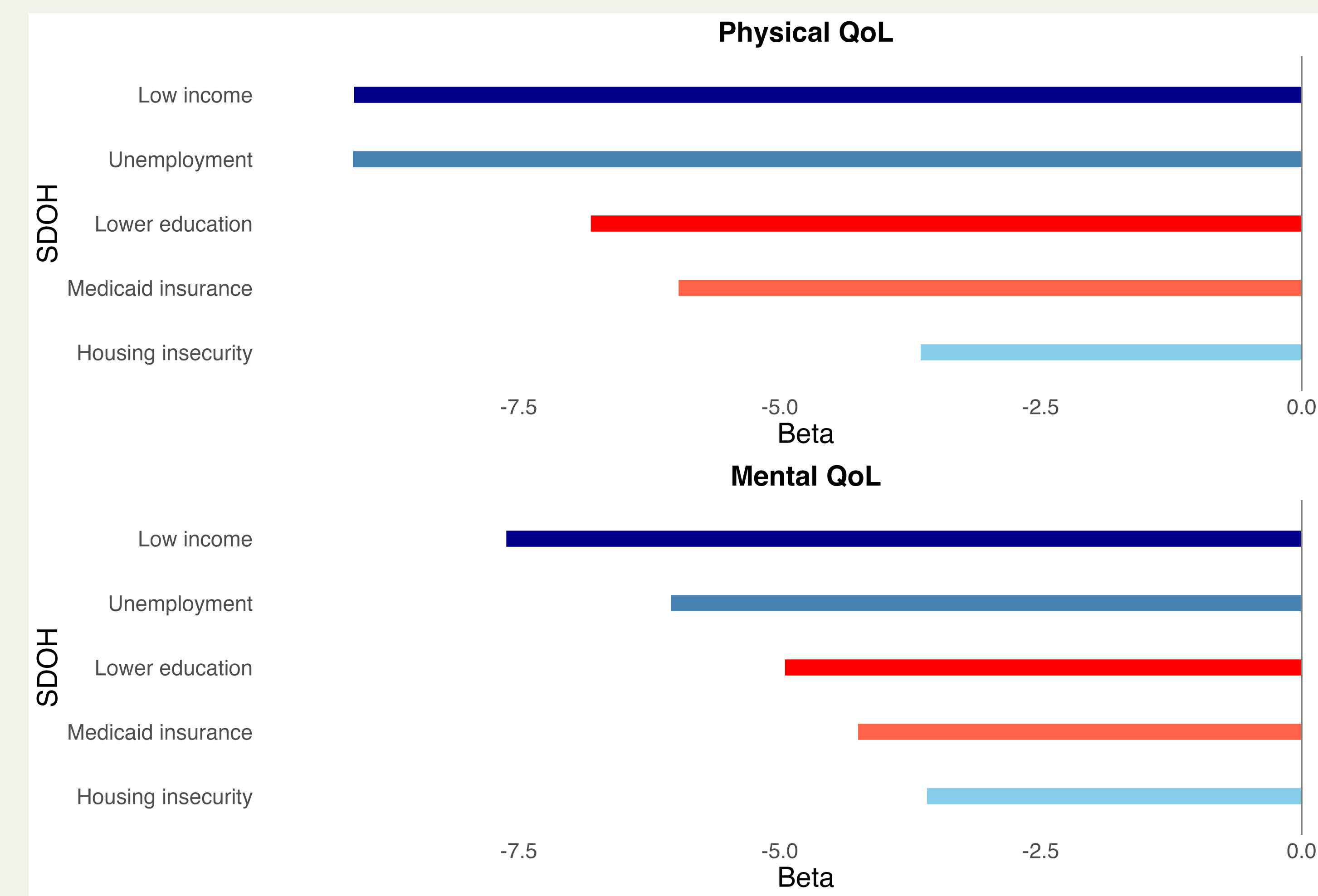
### Racial disparities in QoL (HS patients)

Relative to European Americans, Hispanic and African American patients had lower physical QoL.

$\beta = -2.59$ Hispanic patients	$\beta = -1.36$ African American
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Both comparisons significant at  $p < 0.01$ . Results were non-significant for mental QoL.

**Key takeaway:** HS is associated with substantial reductions in quality of life, with disproportionately greater burden among racial minority and socioeconomically disadvantaged patients.



**Figure 1.** Association of social determinants of health (SDOH) with physical and mental quality of life (QoL). Negative beta coefficients indicate poor QoL; all  $p < 0.001$ .

## CONCLUSIONS

- HS is associated with significant, independent impairments in both physical and mental QoL.
- Socioeconomic disadvantage amplifies QoL burden. Unemployment and low income carry the largest effects.
- The magnitude of QoL impairments identify SDOH as a strong driver in HS outcome disparities.
- Racial disparities highlight persistent inequities in the lived experience of HS across racial groups.
- Holistic, equity-centered care models are needed to reduce the compound burden of HS.

Addressing SDOH is not peripheral, it is central to improving outcomes and promoting health equity in HS management.