Race and ethnicity sub-groups of alopecia areata patients have differing clinical characteristics: TARGET-DERM AA

Maria K Hordinsky MD[1]; Claire Bristow PhD MPH, MSc[2]; Sven Richter MD[2]; Ahmed M Soliman PhD MS[2]; Keith D Knapp PhD[3]; Breda Munoz PhD[3]; Julie M Crawford MD[3]; Amy S Paller MD[4]; M. Shane Chapman MD, MBA[5]; Lara Wine Lee MD[6]; Natasha A Mesinkovska MD, PhD[7]; Benjamin N Ungar MD[8]

[1]University of Minnesota Medical School, Minnesota; [2]AbbVie Inc. Illinois; [3]Target RWE, North Carolina; [4]Northwestern University - The Feinberg School of Medicine, Illinois; [5]Dartmouth-Hitchcock Medical Center – Geisel School of Medicine at Dartmouth, New Hampshire; [6]Medical University of South Carolina, South Carolina; [7]University of California School of Medicine, Irvine, California; [8]Icahn School of Medicine at Mount Sinai, New York

TARGET RWE — BETTER EVIDENCE • BETTER HEALTH

Introduction
- Alopecia areata (AA) is a chronic, autoimmune disease that disproportionately impacts select subgroups.[1]
- Specifically, patients with skin of color seem have a higher prevalence of AA.[2]

Objective
- To assess clinical characteristics of AA patients by race and ethnicity subgroup.

Methods
- United States and Canadian clinics enrolled participants in the TARGET-DERM AA registry (December 2021 - June 2024, data collection ongoing).
- Inclusion criteria:
  - Enrolled in TARGET-DERM AA
  - Completed a patient questionnaire at enrollment
  - Had at least one clinician reported outcome at enrollment
- The patient questionnaire invites responses regarding comorbidities and the Patient Global Impression of Severity-AA (PGIS-AA).
- Clinician-reported outcomes collected: the Clinician's Global Impression of AA (CGI-AA), Severity of Alopecia Tool (SALT), Measure for Eyebrow and Eyelash Hair Loss.
- Patients were summarized using descriptive statistics and compared using the Fisher-Exact, Chi-square, or Kruskal-Wallis tests as appropriate.

Results
- Of the 267 AA patients, 61.4% were female; 53.2% were adults. (Table 1)

- 52.1% identified as Non-Hispanic (NH) White, 28.5% identified as Hispanic, 8.6% NH Black and 6.4% as NH Asian. (Figure 1)

- Of all subgroups the NH Asian patients had the highest proportion (47.1%) with severe disease (SALT>50) followed by (Figure 2):
  - 34.8% of NH Black patients
  - 31.7% of NH White patients
  - 19.7% of Hispanic AA patients

- Across the subgroups HS Asian patients also had the highest proportion (47.1%) of patient-reported severe/very severe disease (PGIS-AA) followed by (Figure 2):
  - 41.9% of NH White patients
  - 39.1% of NH Black patients
  - 27.6% of Hispanic AA patients

Table 1. Demographic characteristics at enrollment by race/ethnicity subgroup

	NH White (N=139)	NH Black (N=23)	NH Asian (N=17)	Hispanic (N=76)	NH White or NH Black or NH Asian or Hispanic (N=255)	p-value compares NH White, NH Black, NH Asian and Hispanic	Other/Not Reported (N=12)	All participants (N=267)
Adult Age						0.0019		
Mean (SD)	46.3 (16.2)	34.0 (11.9)	37.0 (10.9)	32.7 (12.6)	42.5 (16.0)		38.9 (17.8)	42.3 (16.0)
Median (n)	48.0 (93)	38.0 (11)	34.0 (11)	29.5 (20)	43.0 (135)		39.0 (7)	42.5 (142)
Min - Max	18.0 - 77.0	19.0 - 54.0	23.0 - 54.0	19.0 - 52.0	18.0 - 77.0		19.0 - 71.0	18.0 - 77.0
Sex, n (%)						0.8361		
Female	87 (62.6%)	13 (56.5%)	10 (58.8%)	45 (59.2%)	155 (60.8%)		9 (75.0%)	164 (61.4%)
Insurance, n (%)						<.0001		
n	139	23	17	76	255		12	267
Commercial/Private	120 (86.3%)	18 (78.3%)	15 (88.2%)	38 (50.0%)	191 (74.9%)		5 (41.7%)	196 (73.4%)
Medicaid	8 (5.8%)	5 (21.7%)	2 (11.8%)	37 (48.7%)	52 (20.4%)		6 (50.0%)	58 (21.7%)
Medicare	9 (6.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (3.5%)		1 (8.3%)	10 (3.7%)
Uninsured	2 (1.4%)	0 (0.0%)	0 (0.0%)	1 (1.3%)	3 (1.2%)		0 (0.0%)	3 (1.1%)

Figure 1. Distribution by Race/Ethnicity subgroup

NH-White 52.1%; Hispanic 28.5%; NH-Black 8.6%; NH-Asian 6.4%; Other 1.5%; Not-Reported 3.0%
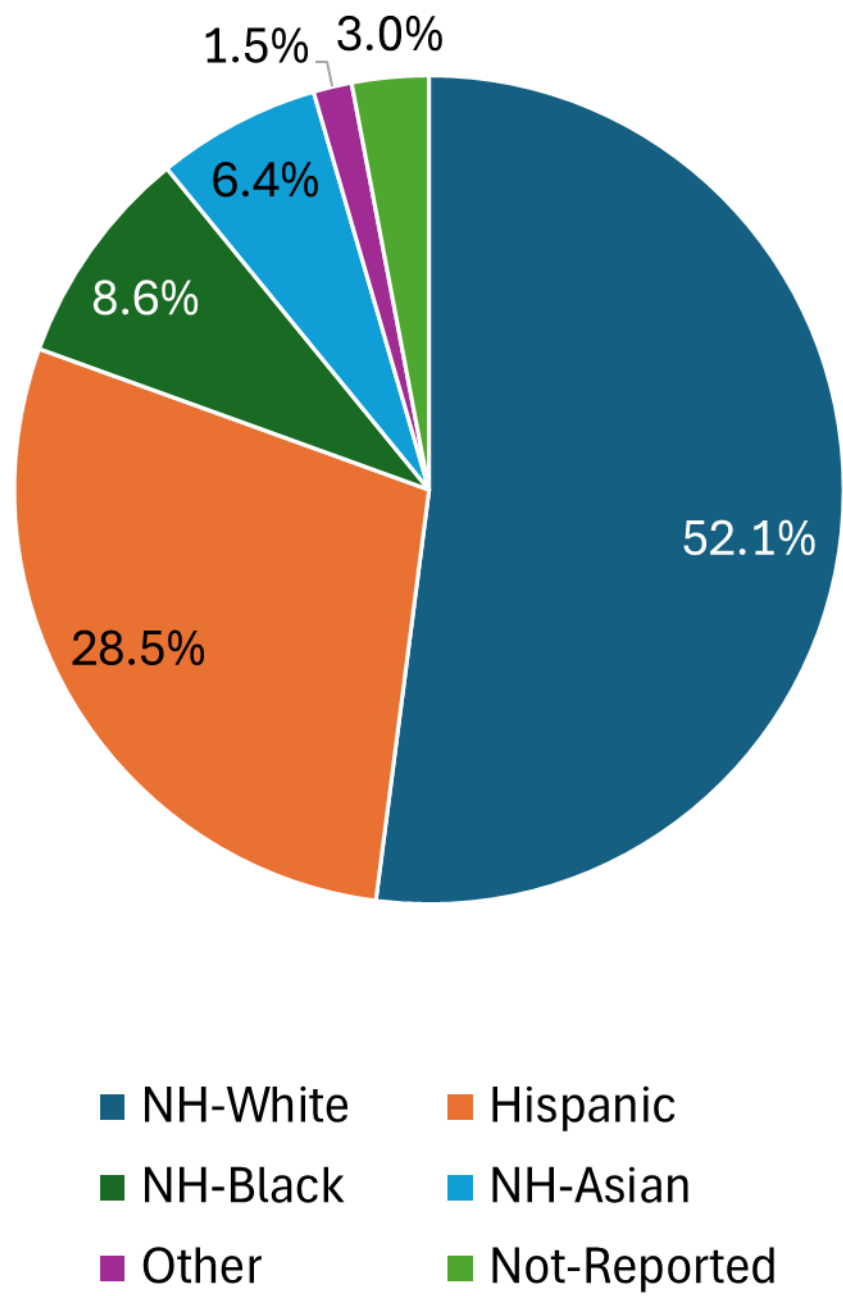
Figure 2. Proportion of patients in each subgroup with the named outcomes

Severe SALT: NH-Asian 47.1%, NH-Black 34.8%, NH-White 31.7%, Hispanic 19.7%
PGIS-AA Severe/Very Severe: NH-Asian 47.1%, NH-Black 39.1%, NH-White 41.9%, Hispanic 27.6%
Eyebrow Involvement: NH-Asian 41.2%, NH-Black 34.8%, NH-White 44.6%, Hispanic 26.3%
Eyelash Involvement: NH-Asian 35.3%, NH-Black 39.1%, NH-White 34.7%, Hispanic 17.1%
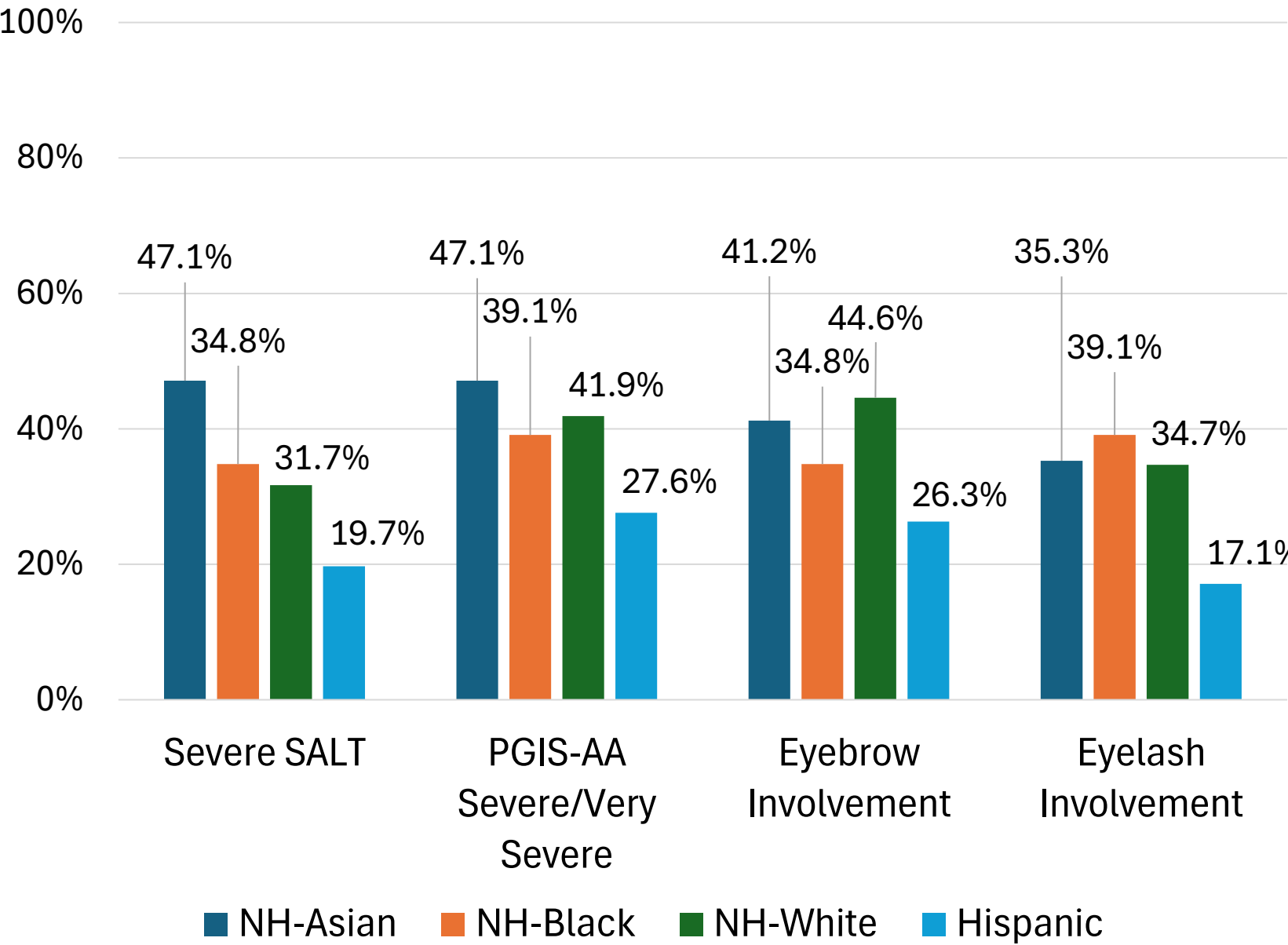
Table 2. Systemic therapy use at enrollment by race/ethnicity subgroup

	NH White (N=139)	NH Black (N=23)	NH Asian (N=17)	Hispanic (N=76)	NH White or NH Black or NH Asian or Hispanic (N=255)	p-value compares NH White, NH Black, NH Asian and Hispanic	Other/Not Reported (N=12)	All participants (N=267)
Topical Corticosteroids								
Fluocinolone, n (%)	4 (2.9%)	3 (13.0%)	1 (5.9%)	3 (3.9%)	11 (4.3%)		1 (8.3%)	12 (4.5%)
Betamethasone, n (%)	6 (4.3%)	0 (0.0%)	2 (11.8%)	2 (2.6%)	10 (3.9%)		0 (0.0%)	10 (3.7%)
Clobetasol, n (%)	32 (23.0%)	1 (4.3%)	6 (35.3%)	25 (32.9%)	64 (25.1%)		3 (25.0%)	67 (25.1%)
Topical Minoxidil, n (%)	24 (17.3%)	4 (17.4%)	4 (23.5%)	13 (17.1%)	45 (17.6%)	0.5742	1 (8.3%)	46 (17.2%)
Oral Minoxidil, n (%)	24 (17.3%)	3 (13.0%)	3 (17.6%)	4 (5.3%)	34 (13.3%)	0.3623	2 (16.7%)	36 (13.5%)
Baricitinib, n (%)	20 (14.4%)	1 (4.3%)	2 (11.8%)	2 (2.6%)	25 (9.8%)	0.1325	1 (8.3%)	26 (9.7%)
Tofacitinib, n (%)	7 (5.0%)	1 (4.3%)	2 (11.8%)	1 (1.3%)	11 (4.3%)	0.6617	0 (0.0%)	11 (4.1%)

Results (continued)
- Eyebrow involvement was highest in NH White patients (44.6%), followed by NH Asian (41.2%), NH Black (34.8%), and Hispanic AA patients (26.3%, Figure 2)

- Eyelash involvement was highest in NH Black patients, followed by NH White, NH Asian, and Hispanic patients (39.1%, 34.7%, 35.3%, and 17.1%, respectively, Figure 2).

- Across race/ethnicity subgroups at enrollment, there were no significant differences in the use of topical treatments or in the use of systemic Janus Kinase Inhibitors (Table 2).

Table 3. Clinician-reported outcomes at enrollment by race/ethnicity subgroup

Outcome	NH White (N=139)	NH Black (N=23)	NH Asian (N=17)	Hispanic (N=76)	NH White, NH Black, NH Asian and Hispanic (N=255)	p-value compares NH White, NH Black, NH Asian and Hispanic	Other/Not reported (N=12)	All participants (N=267)
SALT						0.0284		
Mean (SD)	41.3 (37.3)	41.3 (43.7)	41.5 (43.2)	26.7 (32.3)	37.0 (37.3)		22.6 (30.3)	36.3 (37.1)
Median (n)	28.0 (139)	19.3 (23)	10.0 (17)	11.9 (76)	21.0 (255)		8.3 (12)	19.8 (267)
Min - Max	1.0 - 100	1.8 - 100	1.2 - 100	1.2 - 100	1.0 - 100		1.2 - 100	1.0 - 100
CGI-AA						0.0610		
Mean (SD)	2.4 (1.1)	2.3 (1.3)	2.3 (1.3)	1.9 (1.0)	2.2 (1.1)		1.9 (1.0)	2.2 (1.1)
Median (n)	2.0 (139)	2.0 (23)	2.0 (17)	2.0 (76)	2.0 (255)		2.0 (12)	2.0 (267)
Min - Max	1.0 - 4.0	1.0 - 4.0	1.0 - 4.0	1.0 - 4.0	1.0 - 4.0		1.0 - 4.0	1.0 - 4.0
Percent Hair loss						0.0120		
Mean (SD)	43.2 (35.9)	44.0 (42.3)	44.8 (41.9)	27.6 (31.6)	38.7 (36.3)		26.1 (28.7)	38.1 (36.0)
Median (n)	30.0 (138)	23.0 (23)	25.0 (17)	15.0 (76)	25.0 (254)		17.5 (12)	24.0 (266)
Min - Max	1.0 - 100	2.0 - 100	1.0 - 100	1.0 - 100	1.0 - 100		2.0 - 100	1.0 - 100
Eyebrow						0.0375		
Mean (SD)	1.0 (1.3)	0.6 (0.9)	1.1 (1.4)	0.5 (0.9)	0.8 (1.2)		0.9 (1.2)	0.8 (1.2)
Median (n)	0.0 (139)	0.0 (23)	0.0 (17)	0.0 (76)	0.0 (255)		0.0 (12)	0.0 (267)
Min - Max	0.0 - 3.0	0.0 - 3.0	0.0 - 3.0	0.0 - 3.0	0.0 - 3.0		0.0 - 3.0	0.0 - 3.0
Eyelash						0.0146		
Mean (SD)	0.9 (1.3)	0.8 (1.1)	0.9 (1.3)	0.4 (0.9)	0.7 (1.2)		0.3 (0.9)	0.7 (1.2)
Median (n)	0.0 (139)	0.0 (23)	0.0 (17)	0.0 (76)	0.0 (255)		0.0 (12)	0.0 (267)
Min - Max	0.0 - 3.0	0.0 - 3.0	0.0 - 3.0	0.0 - 3.0	0.0 - 3.0		0.0 - 3.0	0.0 - 3.0

Conclusion:
- In this large real-world cohort, we identified differences in clinician reported measures by race/ethnicity subgroup.
- NH-Asian patients represented the largest proportion of patients with patient and clinician-reported severe disease.
- Clinician-reported eyebrow hair loss was most prevalent in NH White patients, while eyelash hair loss was most prevalent in NH Black patients.
- Hispanic patients had the smallest proportion with severe SALT, eyebrow and eyelash involvement.
- Additional research is required to better characterize AA and health-related quality of life burden in non-White AA patients.

References
1. Lee H, Jung SJ, Patel AB, Thompson JM, Qureshi A , Cho E. Racial characteristics of alopecia areata in the United States. Journal of the American A of Dermatology 2020;83:1064-70.
2. Moseley, I. H., et al. (2023). "Alopecia areata in underrepresented groups: preliminary analysis of the all of us research program." Archives of Dermatological Research 315(6): 1631-1637.