

Classical Hodgkin Lymphoma: Real-World Observations from Physicians, Patients, and Caregivers on the Disease and Its Treatment (CONNECT)—A Cross-Sectional Survey of Patients with Stage III or IV Classical Hodgkin Lymphoma Compared by Age

Darcy R. Flora,¹ Susan K. Parsons,² Nicholas Liu,³ Kristina S. Yu,³ Katie Holmes,⁴ Carlos Flores,⁵ Michelle Fanale,³ Supriya Kumar,⁴ Andy Surinach,⁵ Rachel Byrd,¹ Andrew M. Evens⁶

¹GRYT Health, Rochester, NY, USA; ²Tufts Medical Center, Boston, MA, USA; ³Seagen Inc., Bothell, WA, USA; ⁴Ipsos Healthcare, New York, NY, USA; ⁵Genesis Research, Hoboken, NJ, USA; ⁶Rutgers Cancer Institute of New Jersey, New Brunswick, NJ, USA

Background

- Hodgkin lymphoma (HL) represents approximately 10% of all lymphomas diagnosed in the United States (US)¹
 - ~40% are diagnosed with stage III or IV disease^{2,3}
- Classical Hodgkin lymphoma (cHL) comprises 95% of all HL cases⁴
- HL incidence follows a bimodal age distribution, with peaks in adolescents and young adults (aged 15–34 years) and in older adults (aged >60 years)⁴⁻⁷
 - HL in older adults is characterized by aggressive disease and unfavorable prognostic features such as B symptoms, and predominance of advanced stages⁸
 - Survival outcomes are markedly inferior for older vs adolescents and young adults (AYA) patients with HL (5-year failure-free survival: 48% vs 74%; 5-year overall survival: 58% vs 90%)⁹
 - The societal burden of HL, per death, is the second highest of all malignancies due to the relatively young age of many patients and years of productive life lost due to premature mortality^{10,11}
- Multi-agent chemotherapy regimens that contain bleomycin are a mainstay therapy in the treatment of patients with advanced HL^{3,12}
 - However, the treatment burden is substantial with bleomycin-containing regimens such as ABVD (doxorubicin, bleomycin, vinblastine, dacarbazine) or escalated BEACOPP (escalated doses of bleomycin, etoposide, doxorubicin, cyclophosphamide, vincristine, procarbazine, prednisone)^{13,14}
 - Bleomycin-induced toxicity (eg, cardiotoxicity, pulmonary toxicity, infertility, and secondary malignancies¹⁴⁻²⁰) is seen in ~10% of HL patients^{17,21}
 - Among AYA,^{14,22,23} therapy-associated late effects are of particular concern due to their potential impact on important life events, such as education and fertility, and risk of secondary malignancies^{14,22}
 - For older adults diagnosed with HL, outcomes with ABVD are inferior to those reported for younger adults²⁴
- Results from the ECHELON-1 trial suggest that A+AVD (brentuximab vedotin in combination with doxorubicin, vinblastine, and dacarbazine) should be considered for the frontline treatment of patients with classical HL including those 18-39 years of age
 - Results from the 5-year update showed a robust and durable progression-free survival benefit as well as a manageable long-term safety profile in the intent-to-treat (ITT) population²⁵
 - Results from a subgroup analysis of AYA (18 to 39 years of age; median follow-up of 60.7 [95% CI, 60.4-61.0] months) showed²⁶
 - A 36% reduction in the risk of progression or death (hazard ratio, 0.64; 95% CI, 0.45-0.92; $P = 0.013$) with A+AVD vs ABVD
 - Five-year progression-free survival of 86.3% with A+AVD vs 79.4% with ABVD
 - No impact on the rate of secondary malignancies with A+AVD and a numerically greater number of pregnancies with A+AVD vs ABVD

Objective

- As part of the CONNECT study, the first real-world survey in cHL to include patients, physicians, and caregivers, patient preferences for treatments used in stage III or IV cHL were explored and differences in these preferences between younger (<40 years) and older (≥40 years) age groups were evaluated

Methods

Study Design

- The CONNECT patient survey was an online survey administered from December 30, 2020, to March 1, 2021
- Participants were
 - Aged ≥18 years at time of survey participation
 - Aged ≥12 years at cHL diagnosis
 - Diagnosed with cHL within the past 10 years
 - Previously treated or currently being treated for cHL in the US
 - Able to speak, read, and write in English
 - Willing and able to participate in the survey
 - Recruited through social networks such as support groups, referrals, social media, and the GRYT Health Cancer Community via email invitations
- Patient data were collected via a secure online data collection platform and anonymized; the survey was estimated to take 25 minutes to complete
- The CONNECT survey was reviewed and approved by the New England Institutional Review Board

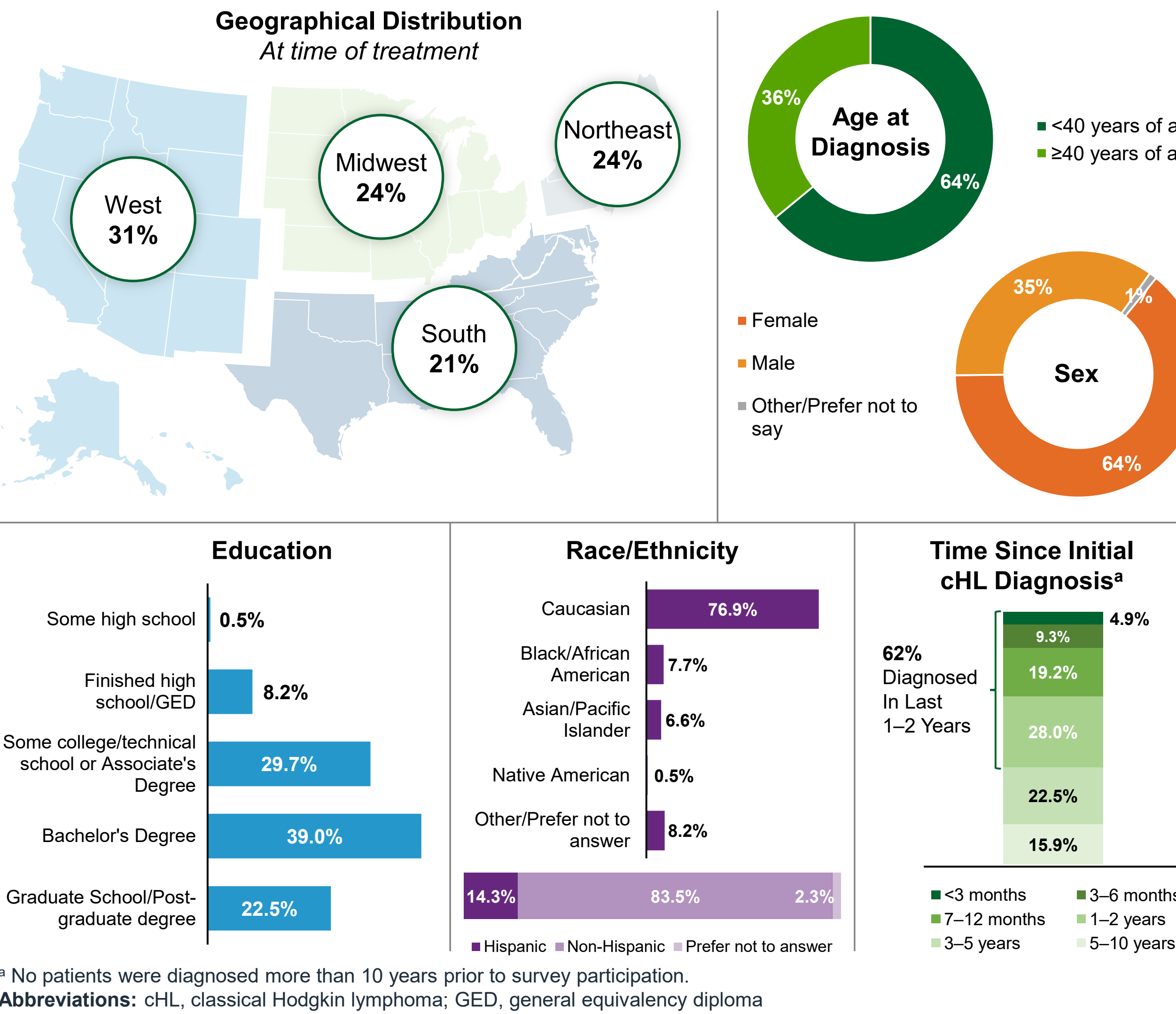
Statistical Analysis

- Quantitative variables were summarized using mean, standard deviation (SD), median, and range
- Categorical variables were summarized as individual totals and percentages
- Non-mutually exclusive categorical variables were summarized as individual totals and a respective percentage out of the total sample size
- Responses across participants aged <40 years and ≥40 years at cHL diagnosis were analyzed and compared statistically at a 95% confidence level

Results

- A total of 182 participants with stage III or IV cHL participated in the survey; 64% (n=117) of participants were aged <40 years and 36% (n=65) were aged ≥40 years at cHL diagnosis (**Figure 1**)
 - The median (interquartile range) age at cHL diagnosis was 32 (25-50) years for all patients
 - Diagnosed at <40 years of age: 27 (23-32) years
 - Diagnosed at ≥40 years of age: 57 (49-64) years
 - 27% of participants were receiving treatment at the time of survey participation

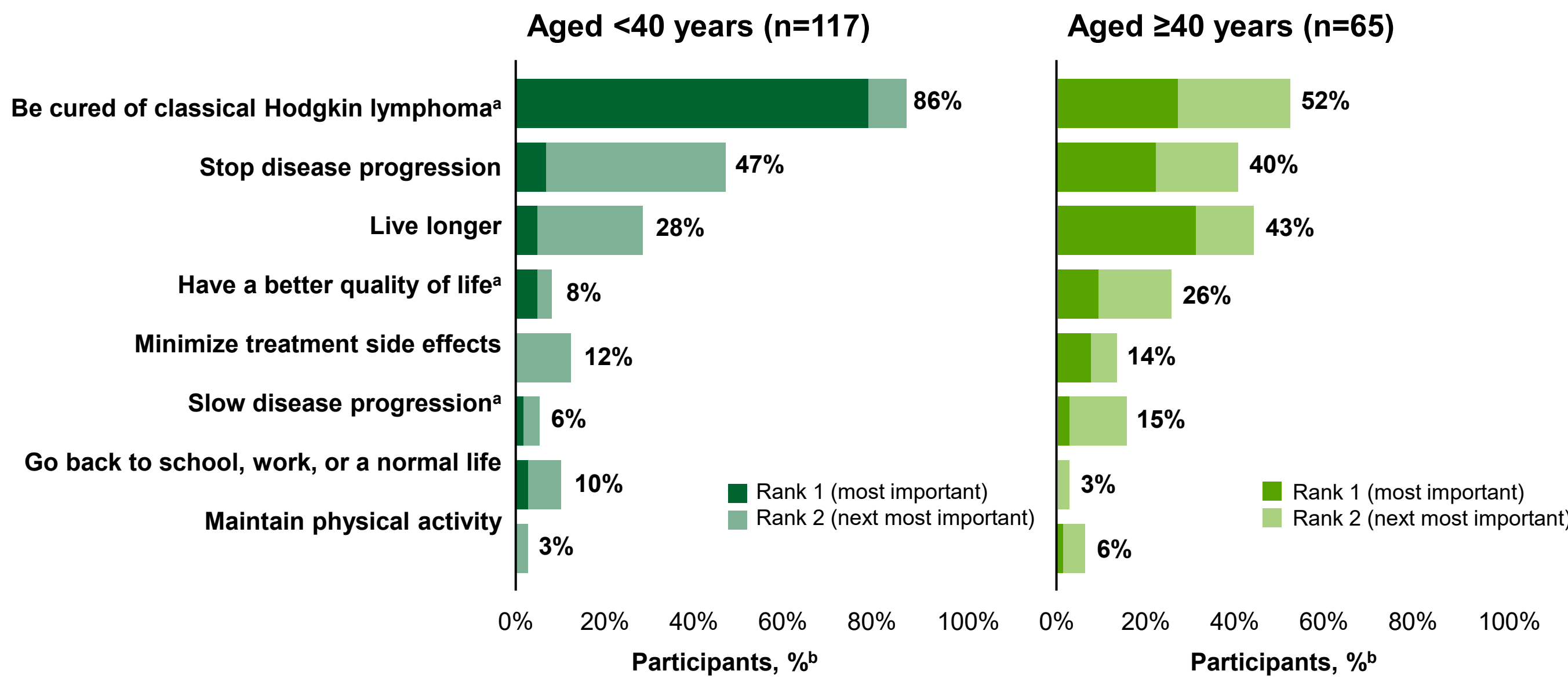
Figure 1. Baseline Characteristics of Survey Participants with Stage III or IV cHL



Results (cont'd)

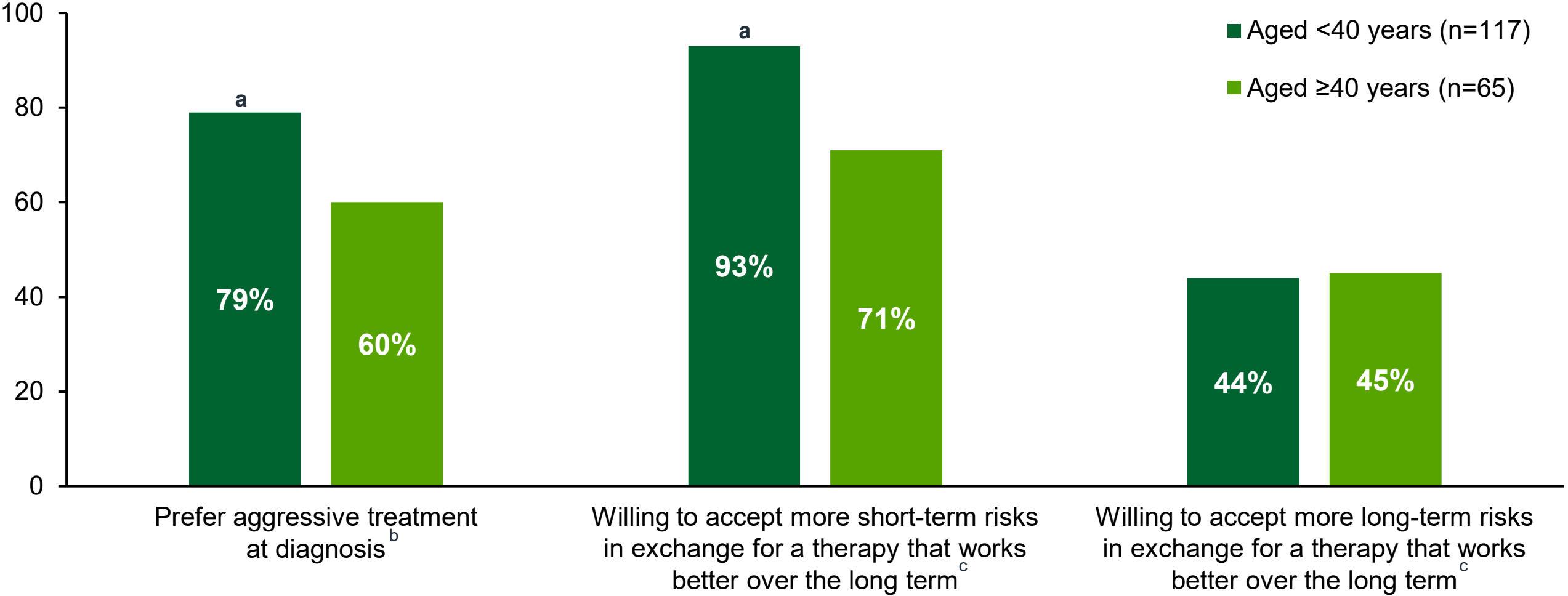
- Treatment goals differed between participants aged <40 and those ≥40 years (**Figure 2**)
 - A significantly higher percentage of participants aged <40 years than ≥40 years ranked cure as their first or second initial cHL treatment goal (86% vs 52%; $P < 0.001$; **Figure 2**)
 - A higher percentage of participants aged ≥40 years than <40 years ranked living longer (43% vs 28%) and having better quality of life (26% vs 8%, $P = 0.001$) as their first or second initial cHL treatment goal
 - Among participants in remission, staying in remission was ranked as the first or second most important survivorship goal by 86% of the 105 participants aged <40 years and 100% of the 11 participants aged ≥40 years in remission

Figure 2. Treatment Preferences: Goals for Initial Treatment



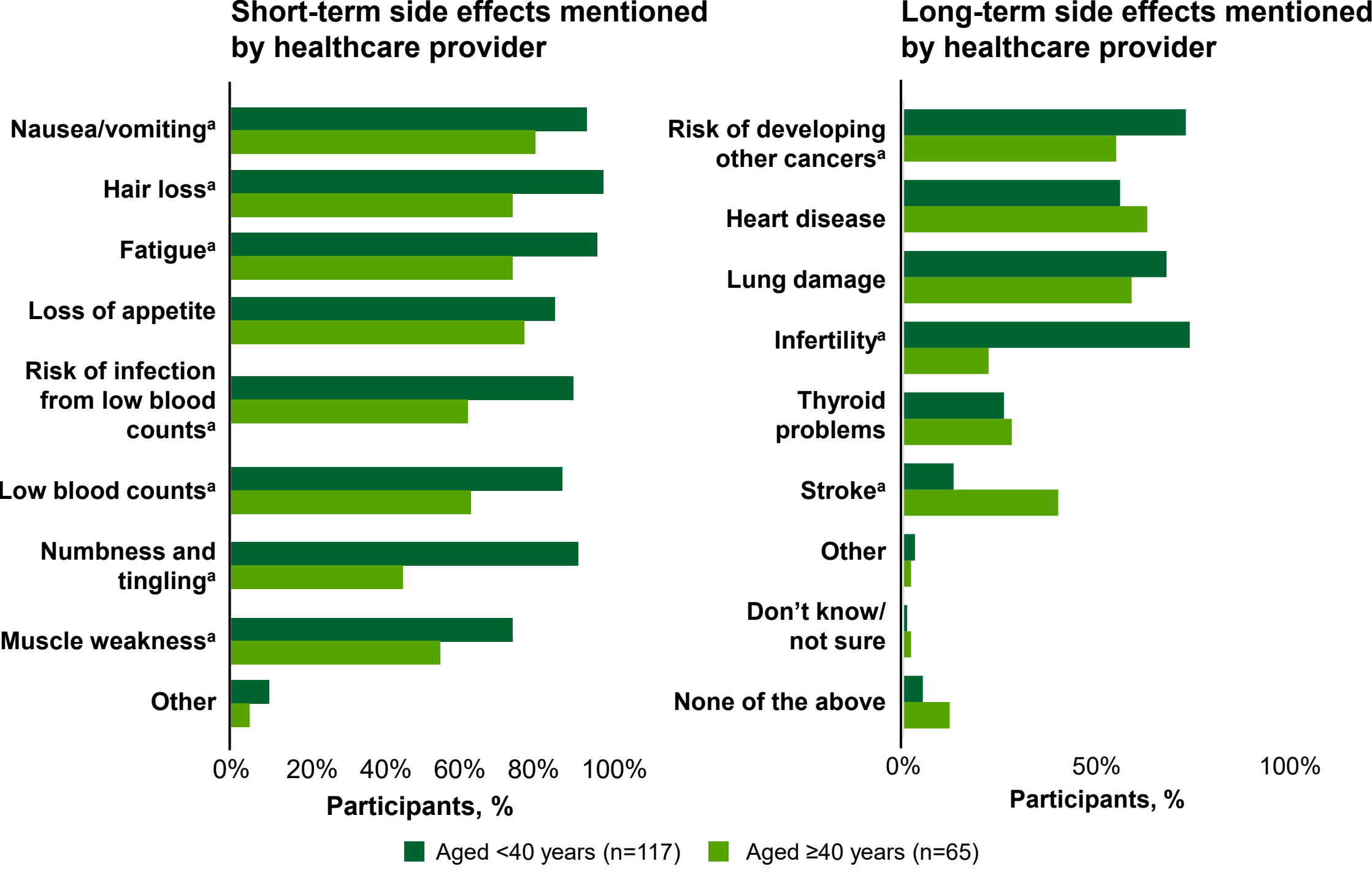
- Similarly, preferences for receipt of aggressive treatment varied by age, with a significantly higher percentage of participants aged <40 years than those aged ≥40 years preferred to treat their cancer aggressively ($P = 0.016$; **Figure 3**)
 - Most participants, regardless of age, were willing to trade off short-term risks in exchange for a therapy that works better over the long term
 - A significantly higher percentage of those aged <40 years than ≥40 years were willing to make this trade off (93% vs 71%; $P < 0.001$)
 - However, fewer participants across both age groups were willing to accept more long-term risks in exchange for a therapy that works better over the long term

Figure 3. Treatment Preferences: Treatment Aggressiveness



- Across both age groups, most participants <40 years and ≥40 years reported being informed about both short-term (85% and 72%) and long-term (75% and 62%) side effects during a discussion on cHL treatment options with their health care provider (**Figure 4**)
 - Overall, fewer participants reported being informed about long-term than short-term risks of cHL treatment
- Participants aged <40 years vs ≥40 years were generally more concerned about the long-term risks of developing other cancers ($P < 0.001$) and infertility ($P = 0.007$)
- Participants aged ≥40 years vs <40 years were generally more concerned about the long-term risks of infections ($P < 0.001$), stroke ($P = 0.046$), and heart disease

Figure 4. Short- and Long-Term Side Effects Mentioned by Health Care Provider



Limitations

- Results may not be generalizable to all patients with cHL due to the method and nature of convenience sampling by way of an opt-in group of survey participants

Conclusions

- Treatment goals differ significantly between people diagnosed with stage III or IV cHL based on age, with those aged <40 years focusing on cure and aggressive treatments and those aged ≥40 years focusing on living longer and obtaining a good quality of life
- Although most participants, regardless of age, were willing to accept short-term risks in exchange for long-term benefits, a significantly higher percentage of participants aged <40 years than ≥40 years were willing to accept short-term risks in exchange for long-term benefits
- Most participants reported discussing both short- and long-term side effects with their health care provider during a conversation on treatment options

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For more information or questions, please contact Nicholas Liu, PharmD, at nliu@seagen.com

