

Identifying Factors that Affect Barriers to Lymphoma Treatment during the COVID-19 Pandemic.

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INTRODUCTION

- Lymphoma Coalition (LC) supports over 80 patient organizations across more than 50 countries. LC's overarching goal is to facilitate a community of patient organisations supporting efforts to help patients with lymphoma receive care and support.
- Barriers to accessing treatment therapy for patients with lymphoma are an essential topic across the globe.
- LC's biennial Global Patient Survey (GPS) aims to understand the barriers faced by patients with lymphoma in seeking medical attention or accessing treatment. With the added challenge posed by the COVID-19 pandemic, this study aimed to rank the influence of core demographic variables in their ability to predict barriers to lymphoma treatment in 2020 and 2022.

METHODS

Study design

- This study reports on sub-analysis of the LC 2022 and 2020 GPS, which is an online global survey distributed to patients with lymphoma and CLL, carried out every two years.
- The electronic survey link was distributed to all our participating member organisations across the globe which was then given out to patients and caregivers who participate with these organizations.
- Individuals who chose to complete the survey filled it out on a third-party portal.

Table 1. Description of core demographic variables

Core Demographic Variables	Description
Age	Treated as a continuous variable from 18 – 97 years old
COVID Delay	Represents a deliberate delay in seeking lymphoma treatment due to fear of contracting COVID-19
Education	Education was a binary variable wit the cut point between secondary and post-secondary
Household Status	Refers to those who are either single or with a partner
Indolent/Aggressive	Refers to the typical behaviour of the lymphoma subtype a patient has
Local Area	Refers to whether a respondent lives in an urban, suburban, or rural setting
Sex/Gender	Refers to biological sex in the absence of gender

Respondents

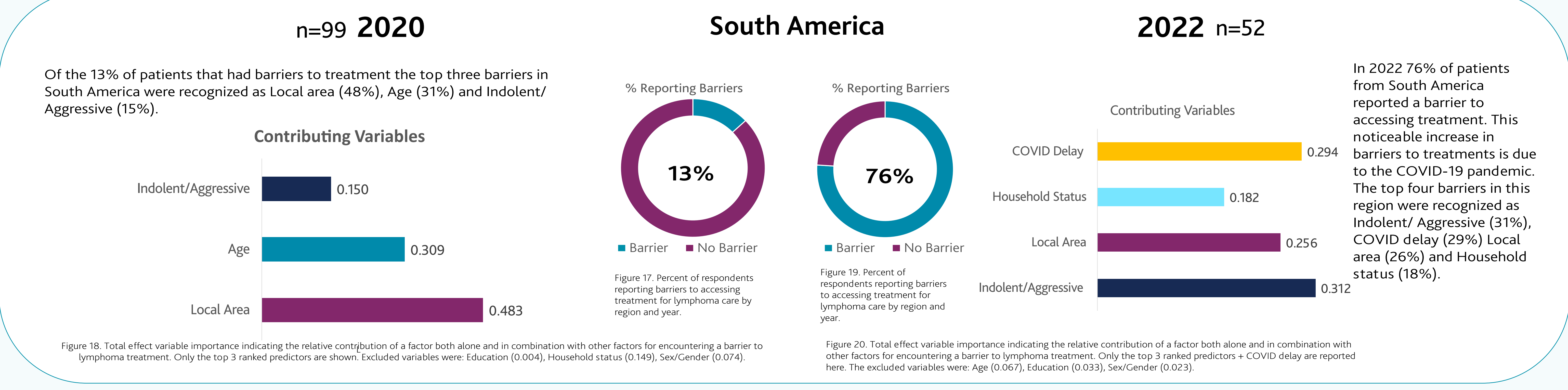
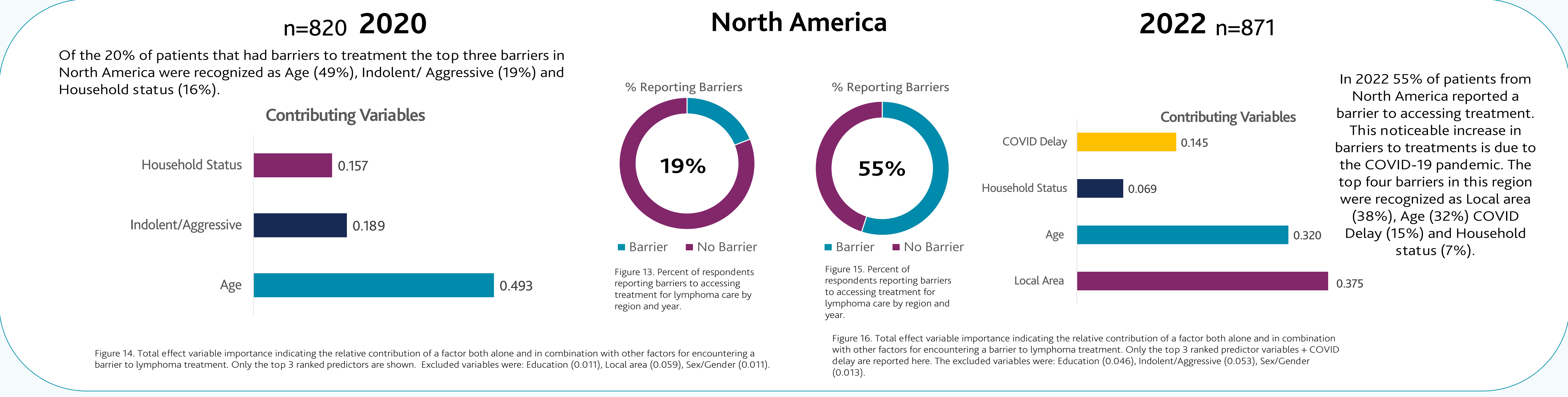
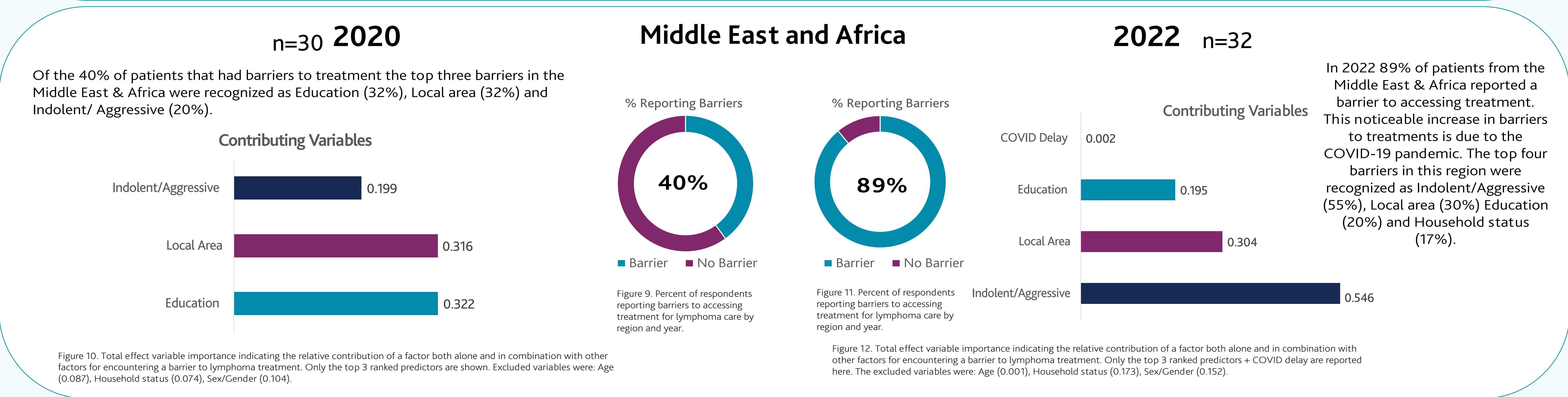
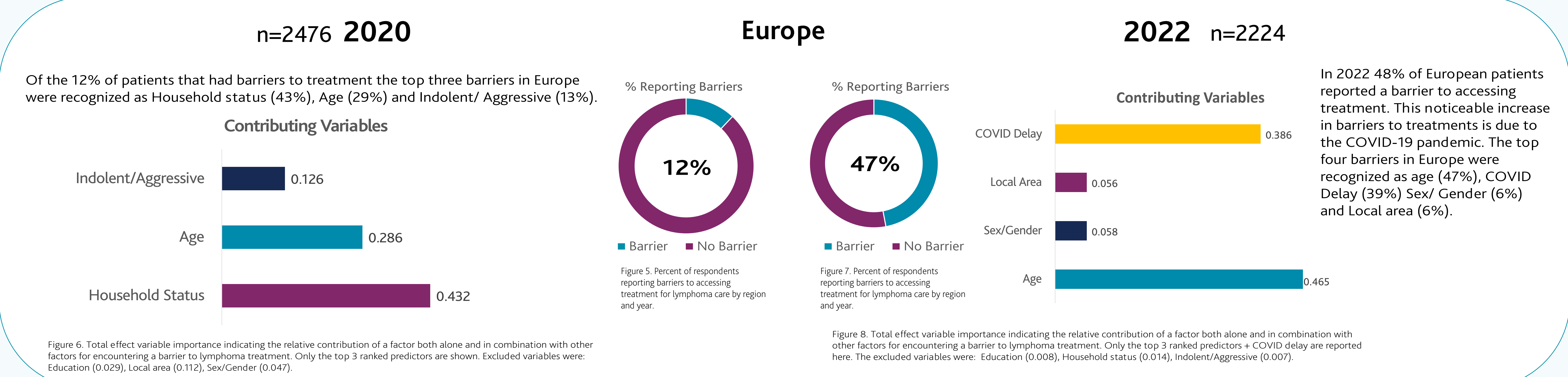
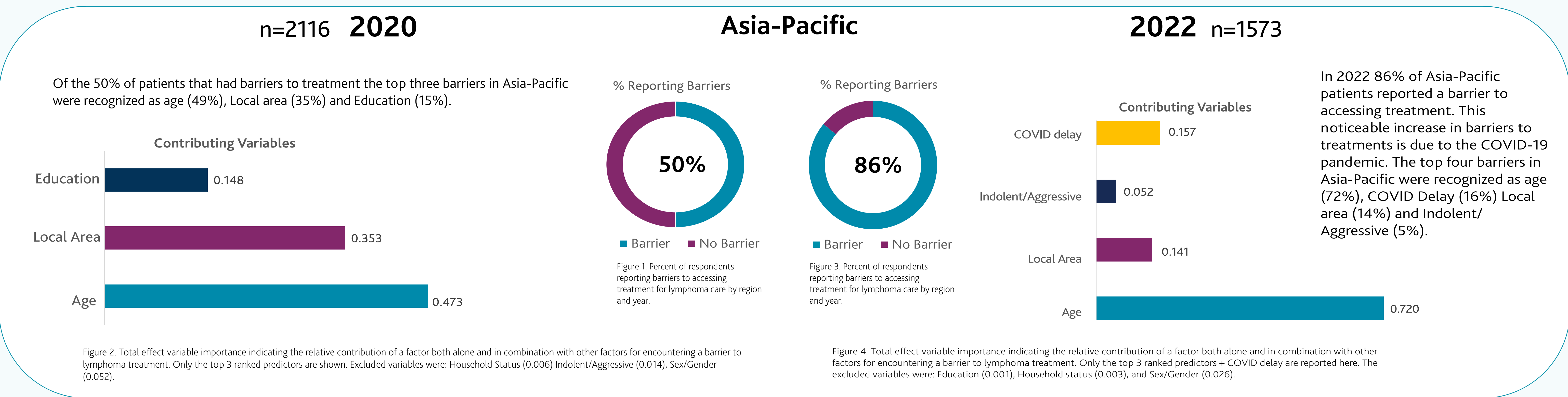
Table 2. Break down of survey respondents by year

Year of survey	Dates	Total respondents	Patient respondent	Caregiver respondents
2020	Jan-March	11,878	9,179	2,699
2022	Feb-April	8,637	7,113	1,524

Statistical analysis

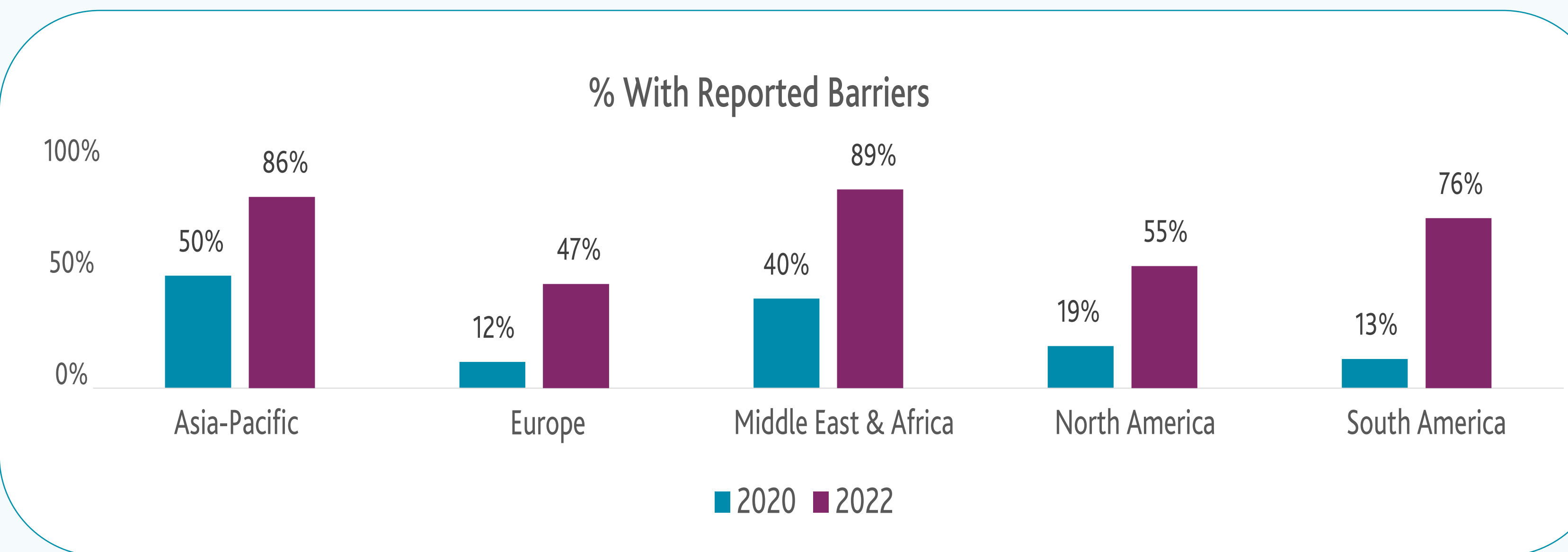
- The data was cleaned and organised, removing partially completed responses to ensure accuracy and completeness. The data sets were grouped into categories using Qualtrics before being exported to MS Excel and IBM Statistical Package of the Social Sciences (SPSS) v27 for further analysis. Frequency tables and charts were used to represent the data and identify patterns and trends visually. Additionally, appropriate statistical tests were performed to determine the significance of any observed differences between groups.
- Survey data was analysed and grouped based on the year the survey was completed and the region the participant was from.
- The outcome variable was the identification of any barrier to receiving lymphoma treatment.
- Logistic regression was used to model the outcome against core demographics. Variable importance was quantified with independent Monte Carlo resampling.

RESULTS



RESULTS (CONTD.)

- This study explored both the percentage of people who reported barriers to accessing care and analyzed the contributing variables.
- Barriers were significantly elevated in all regions in 2022 (p<0.0001). (fig. 21)



- South America had the largest increase (63%) of reported barriers between 2020 and 2022, followed by Middle East and Africa with an increase of 49%.
- In 2022, treatment delay due to concerns over COVID-19 was the second-ranked contributing variable in three regions (South America, Europe, and Asia-Pacific).
- When looking at COVID delay specifically as a contributing variable, Europe reported the highest percentage (39%), followed by South America (29%).
- It should be noted that the Middle East and Africa reported that COVID delay had 0% (reported as 0.002) impact as a contributing variable even though there was a 49% increase of reported barriers to care between years. It is also important to note that the contributing variable of Indolent/Aggressive increased by 35% during the COVID pandemic.
- Those who are of older age were found to have fewer barriers to accessing treatment: Unit OR = 0.965; 95%CI [0.962 - 0.968]. Age was consistently a variable of high importance across most regions in both survey years.

CONCLUSION

- LC advocates equitable access to care for all patients with lymphoma regardless of where they reside.
- As highlighted in the data the experience of patients regarding their barriers to accessing treatment varied widely across regions.
- Over the course of two years, respondents to the GPS reported notable increases in barriers to accessing cancer treatment due to the COVID-19 pandemic, regardless of where in the world patients were located.
- Increased barriers to treatment in those of younger age were an unexpected finding.
- Policymakers and providers should actively rectify access disparities in their respective regions by ensuring they have an emergency plan for the care of cancer patients for future health emergencies.
- It is important to note that there may be other factors outside of the scope of the survey that contributed to patients' challenges accessing care, such as resource shortages, health human resource shortages, or other health crises.

ADDRESSING FUTURE AREAS

- Uncovering the contributing variables that drive an increase in barriers to care may help us better understand the needs of different populations and could provide unique opportunities for improving access to care, communications and health literacy.
- As a next step exploring the interface between patients experiencing high barriers to care and its impact on psychosocial outcomes will be important to further understand.
- The impact of the COVID-19 pandemic on treatment access also highlights the need for continued monitoring and mitigation efforts to address the psychosocial impacts of the pandemic on patient care.

DISCLOSURE AND CONTACT INFORMATION

The study was sponsored by Pfizer Inc, AbbVie Corporation and Takeda Oncology in 2020, and by AbbVie Corporation, Bristol Myers Squibb, Pharmacyclics, and Roche in 2022. None of the authors benefited personally from the research. For further details on the LC, 2020 or 2022 GPS please scan the QR code or visit <https://lymphomacoalition.org/global-patient-survey/>. Please direct any queries to the department of Research & Information at Lymphoma Coalition: amanda@lymphomacoalition.org