

Evaluating a symptom tracking mobile app for use in people with dementia

Alzheimer Europe 2020

Taylor Dunn, Justin Stanley, Sanja Stanojevic, Tomasz Rudka, Susan Howlett, Kenneth Rockwood



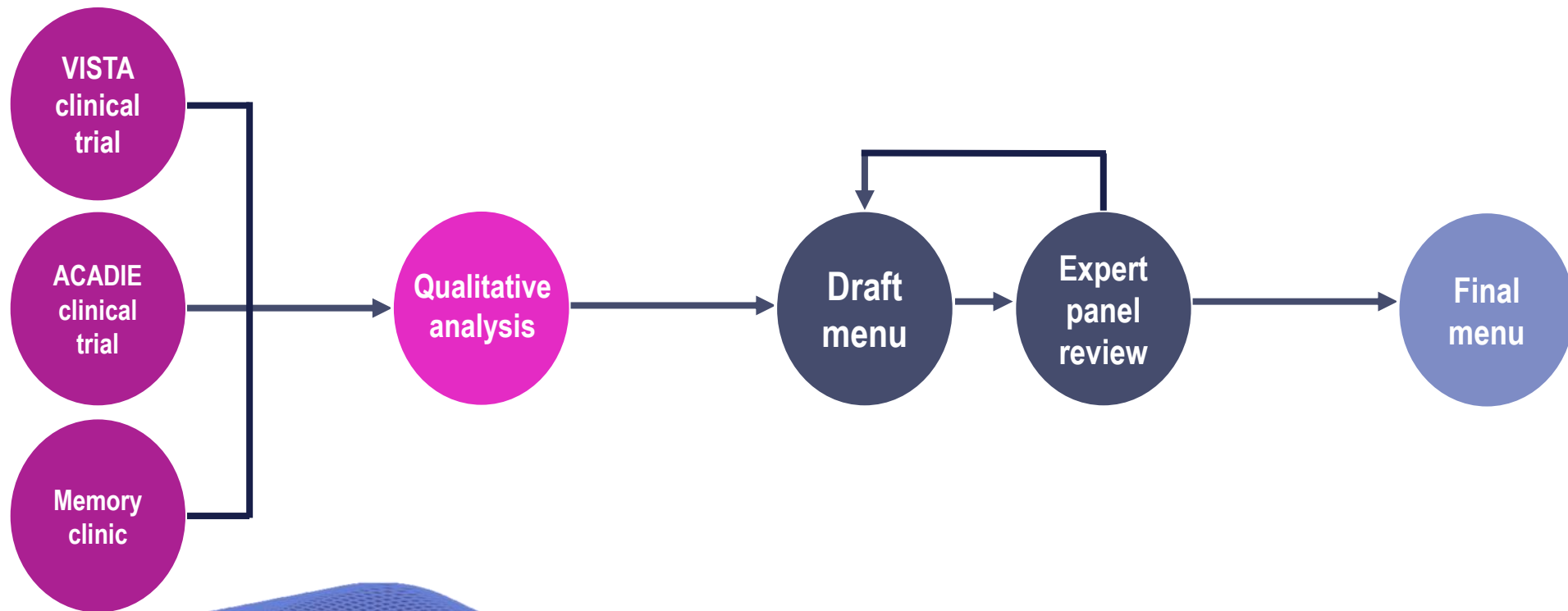
Objectives

- To introduce the **myGoalNav™ Dementia** platform and give an overview of our users.
- To compare users from a **memory clinic** in Halifax, NS, Canada to **online-only** users.
- To investigate the most important symptoms reported by our users using two metrics: **frequency** and **potency**.

*Note: the platform was renamed from **SymptomGuide Dementia** recently.

Background

- myGoalNav™ is a mobile application that allows **caregivers of people with dementia and mild cognitive impairment (MCI)** to track their most important **symptoms and treatment goals** from a menu.
- This menu was developed from qualitative analysis of treatment goals set by patients, caregivers and clinicians in **two dementia clinical trials** and a **memory clinic** in Halifax, Nova Scotia.



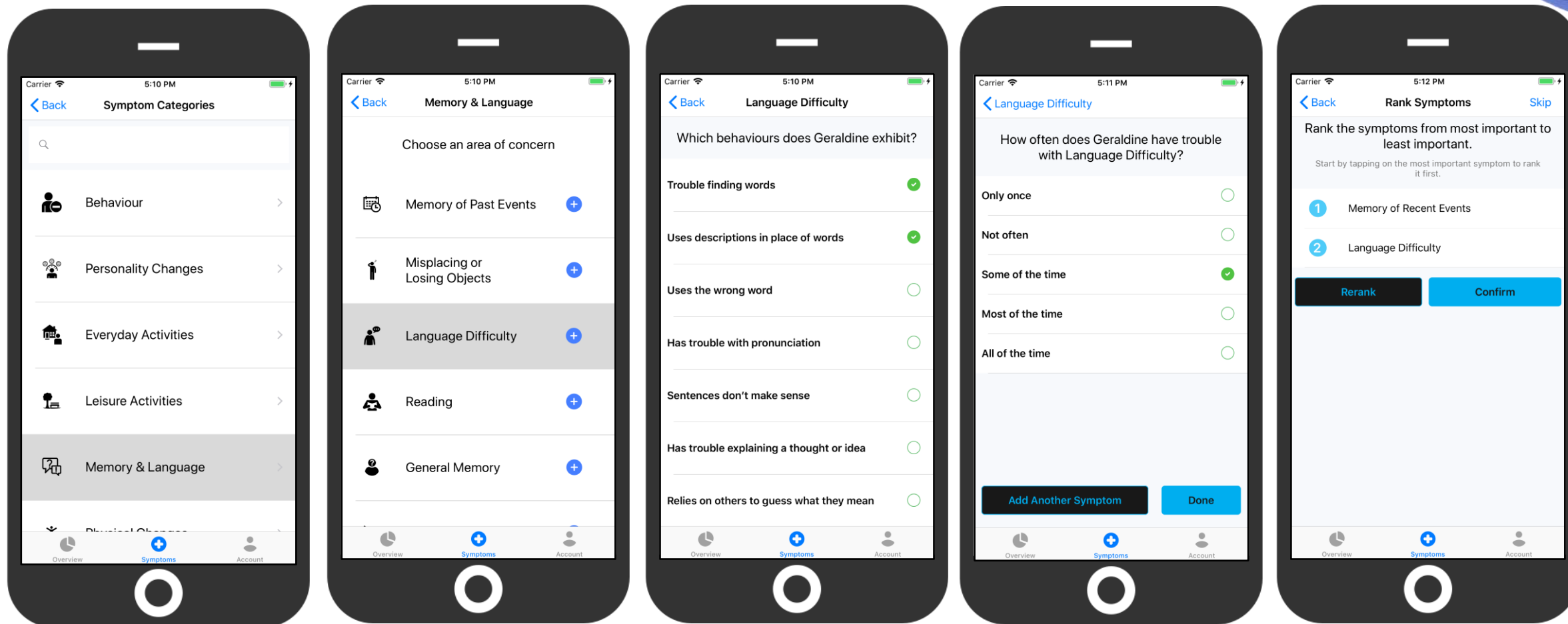
myGoalNav™

2006-2018

The screenshot shows the 'SymptomGuide' section of the DementiaGuide website. The header includes the DementiaGuide logo and navigation links: HOME, SYMPTOMGUIDE™, PROFILE, JOURNAL, SYMPTOM LIBRARY, COMMUNITY, SUPPORT, ACCOUNT, and LOGOUT. The main heading is 'SymptomGuide™ Creating 's Symptom Profile'. Below this, a subheading states: 'This section allows you to record and track the progress of symptoms. You will be prompted to categorize and rank the symptoms at each step. If you have any technical difficulties while completing this section, please contact us.' A progress bar shows three steps: '1 Describe Symptoms' (active), '2 Rank Symptoms', and '3 Save Profile'. The main content area is titled 'Choose Symptoms to add to 's Profile'. It includes instructions: 'To start, please select a Category from the column on the left. By selecting a Category, you will see a range of associated symptoms in the middle column. When you select one of the symptoms, a description will appear to the right. If this description fits the symptom you are trying to record, click on Select this Symptom and Continue. Or, alternately, add a symptom in the space marked 'Other', and then click Select this Symptom and Continue.' The interface is divided into three columns: 'Category' with options like 'Everyday Activities', 'Memory & Language', 'Thinking & Judgment', 'Behaviour', 'Leisure Activities', 'Personality Changes', and 'Physical Changes'; 'Symptoms' with a list including 'Judgment', 'Comprehension/ Understanding', 'Attention/Concentration (lack of)', 'Following Instructions', 'Decision Making (problems with)', 'Insensitivity', 'Inappropriate Language and Beh', and 'Unsafe Actions'; and 'Definition' with the text 'Inability to remain focused or alert.' and a 'Select & Continue' button. An 'Other:' field is also present at the bottom.

2018-Present

The screenshot shows the 'Memory & Language' section of the myGoalNav mobile app. The status bar at the top shows 'Carrier', signal strength, '5:10 PM', and battery level. The app has a 'Back' button and the title 'Memory & Language'. The main heading is 'Choose an area of concern'. Below this, there are five options, each with an icon and a blue plus button: 'Memory of Past Events', 'Misplacing or Losing Objects', 'Language Difficulty' (which is highlighted with a grey background), 'Reading', and 'General Memory'. At the bottom, there is a navigation bar with three icons: 'Overview', 'Symptoms' (which is active and highlighted with a blue plus icon), and 'Account'.



Category

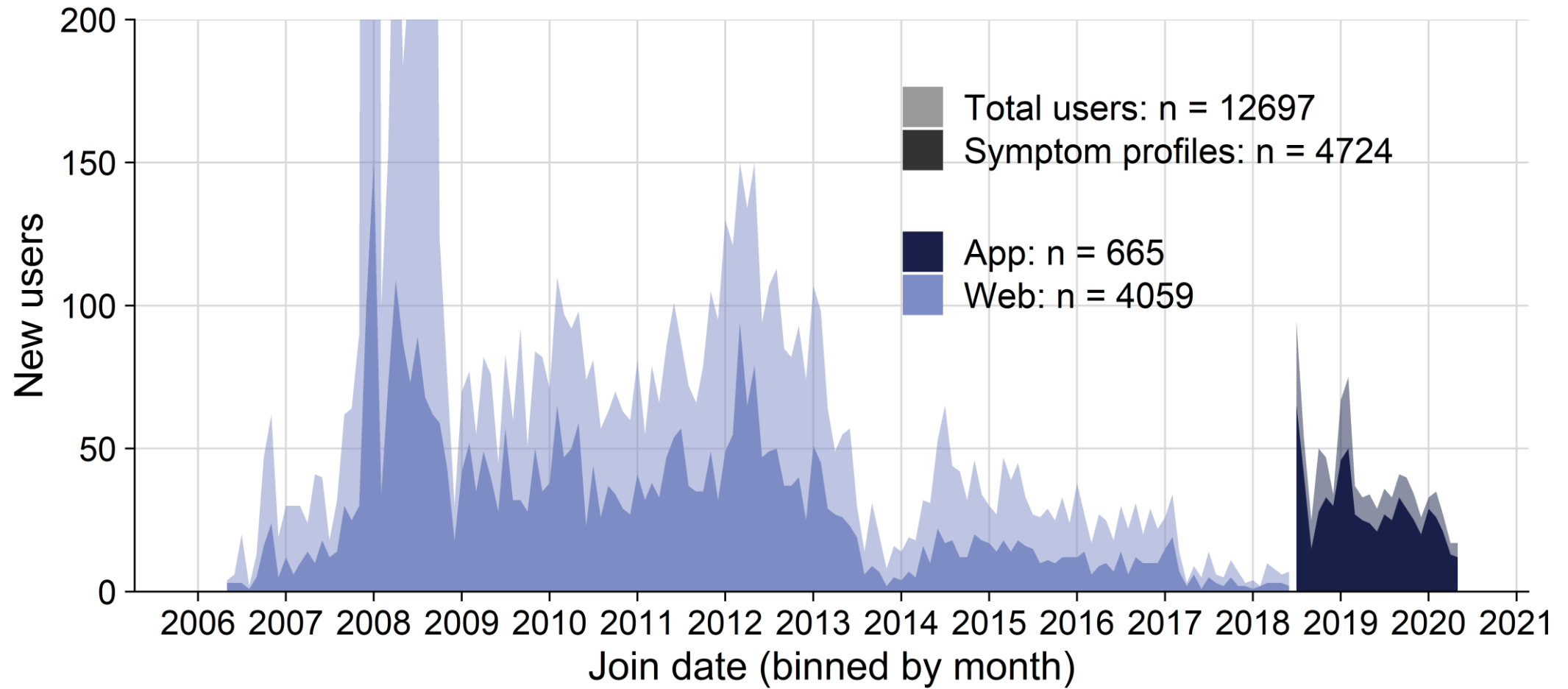
Symptom

Descriptors

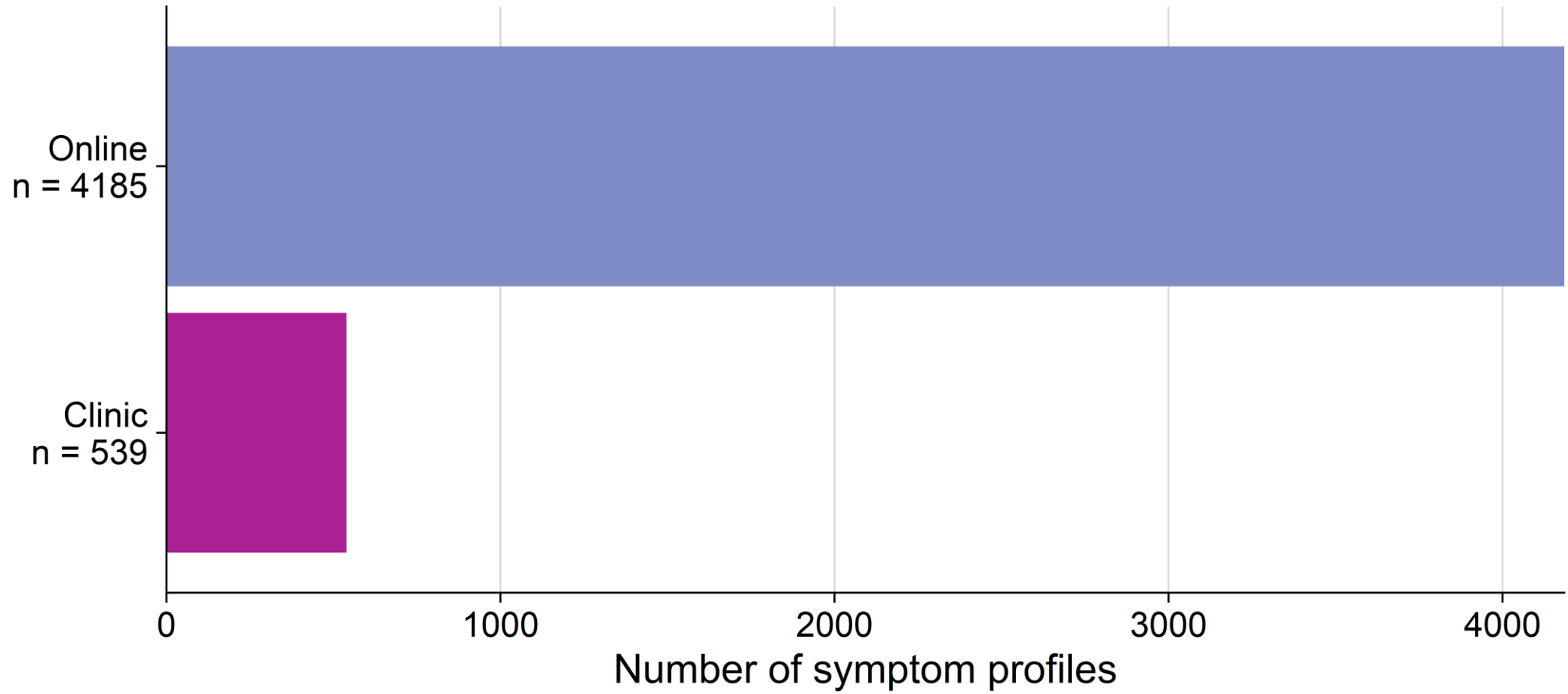
Frequency

Ranking

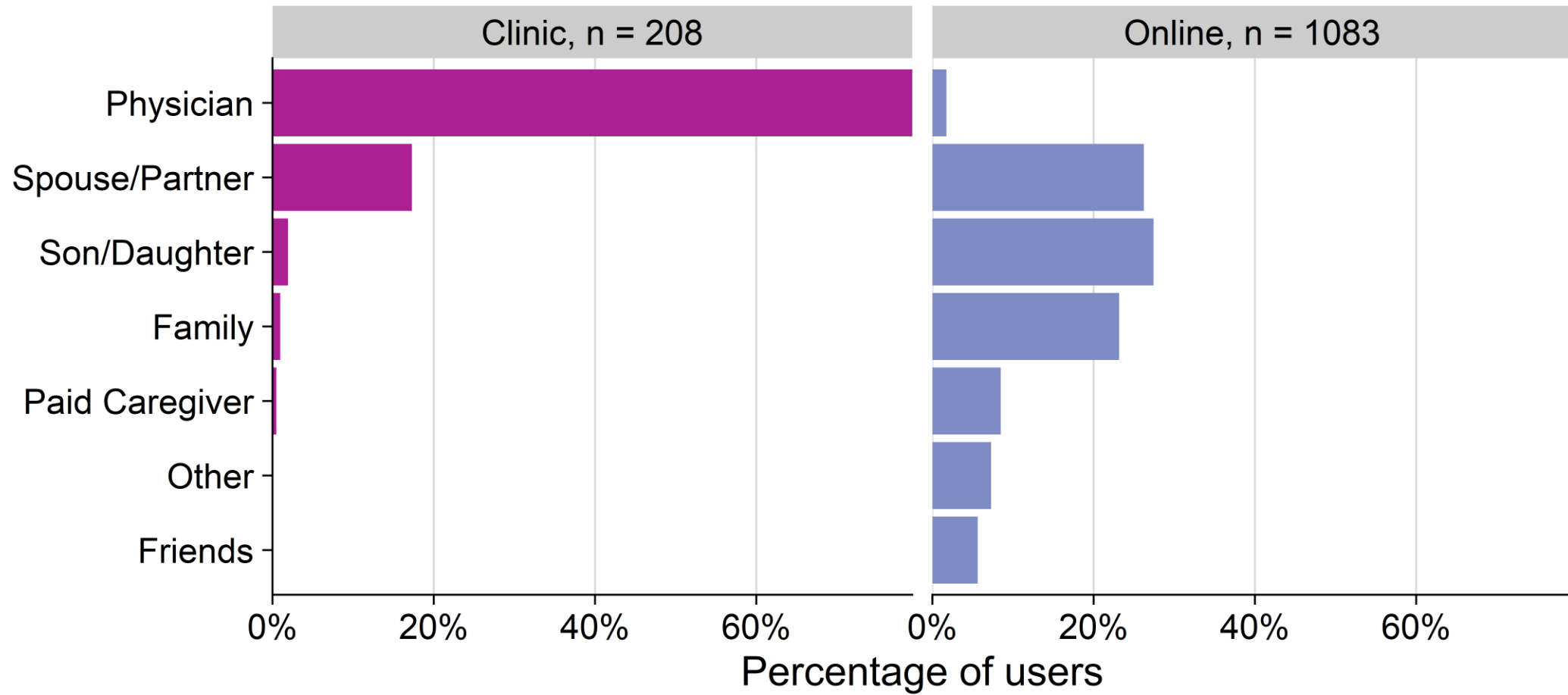
Platform growth



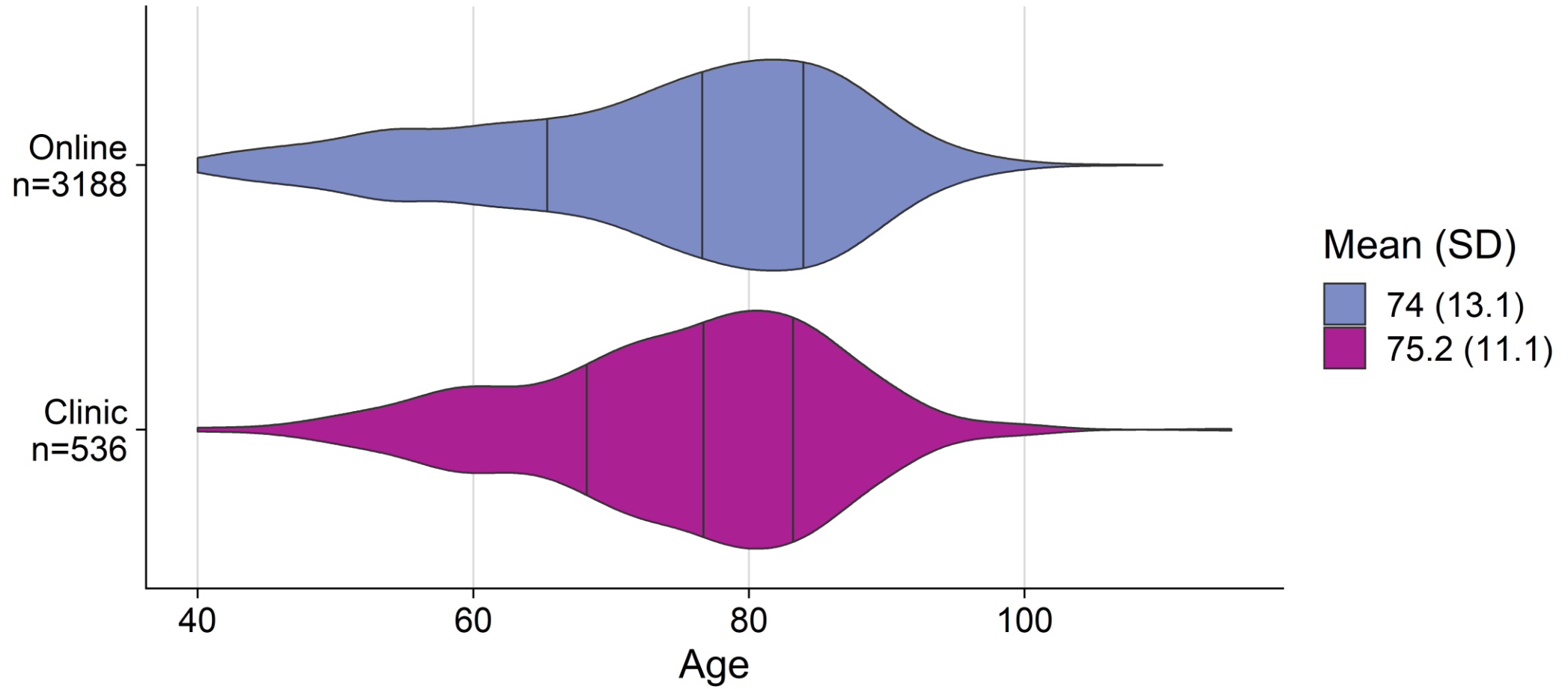
Profiles by setting



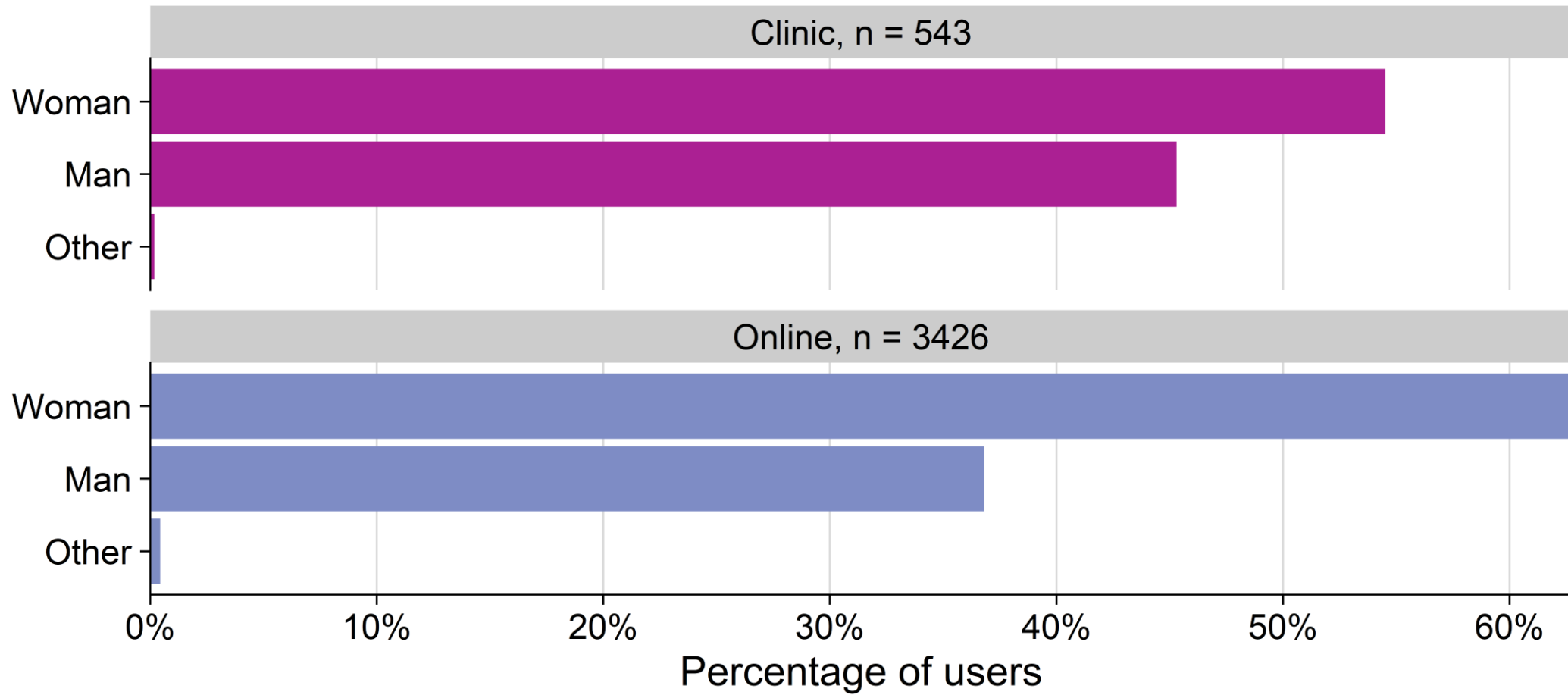
Caregiver relationship distribution



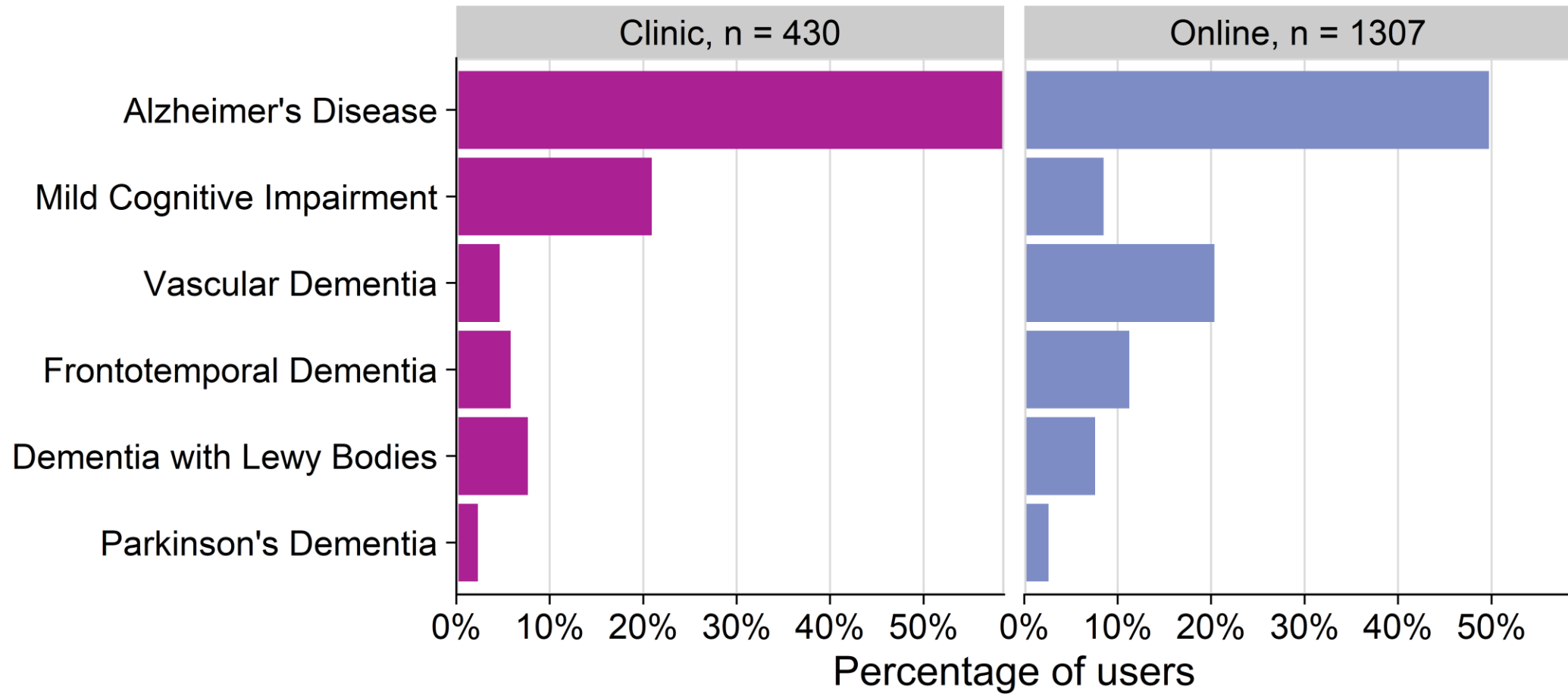
Age distribution



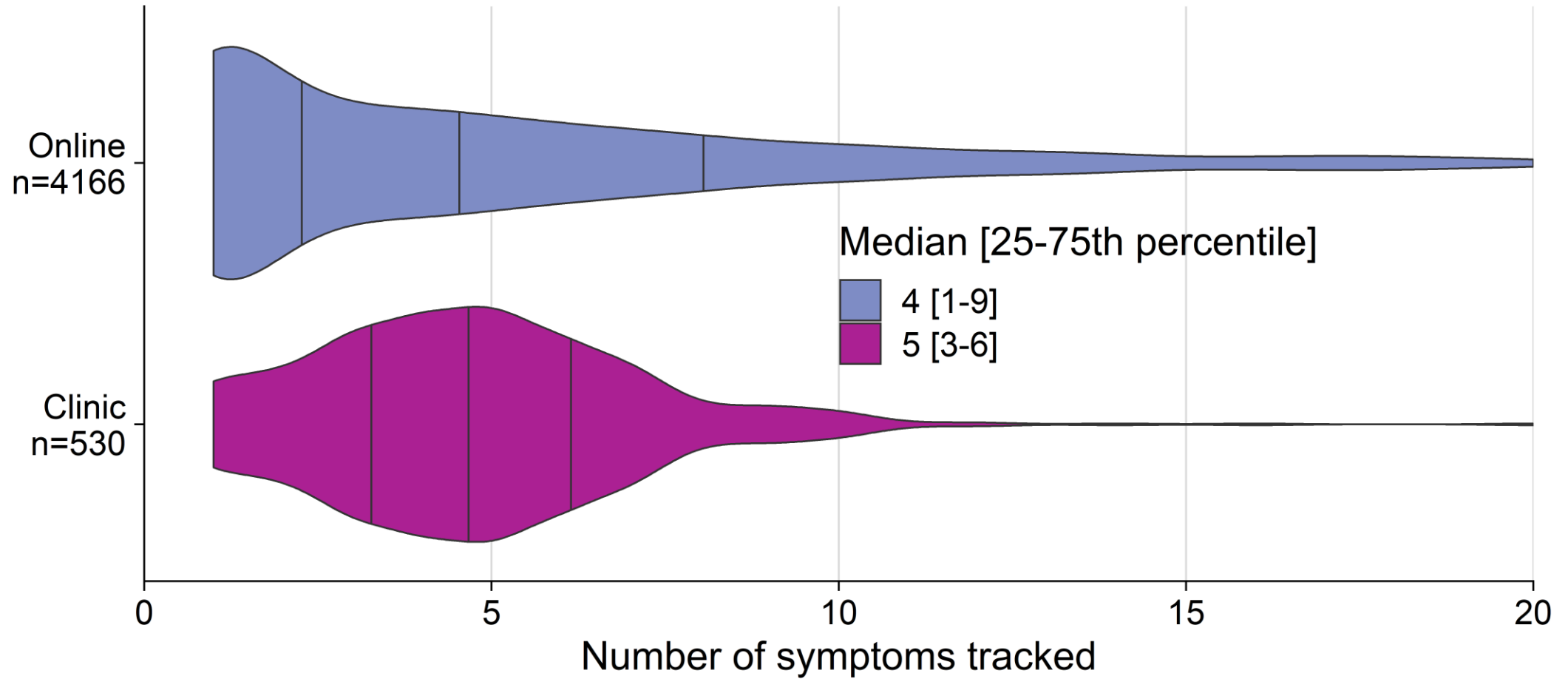
Gender distribution



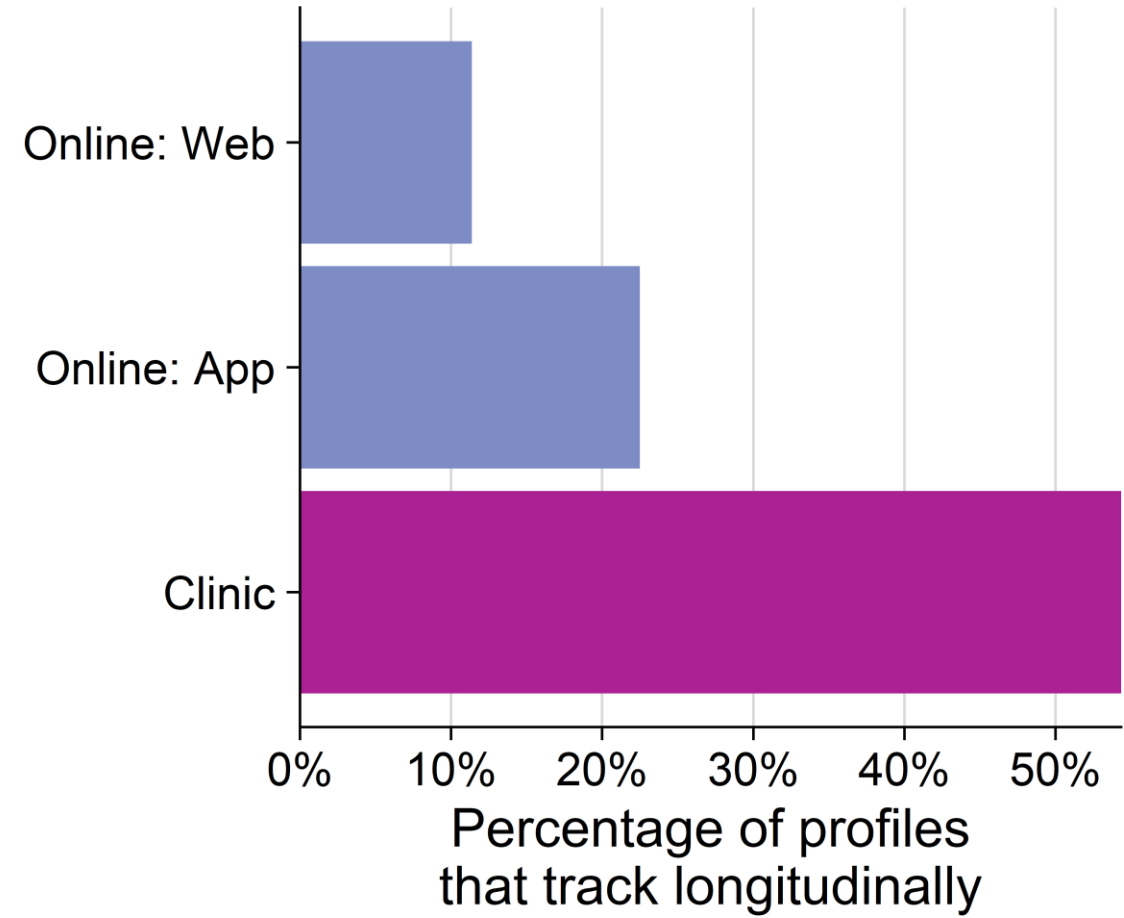
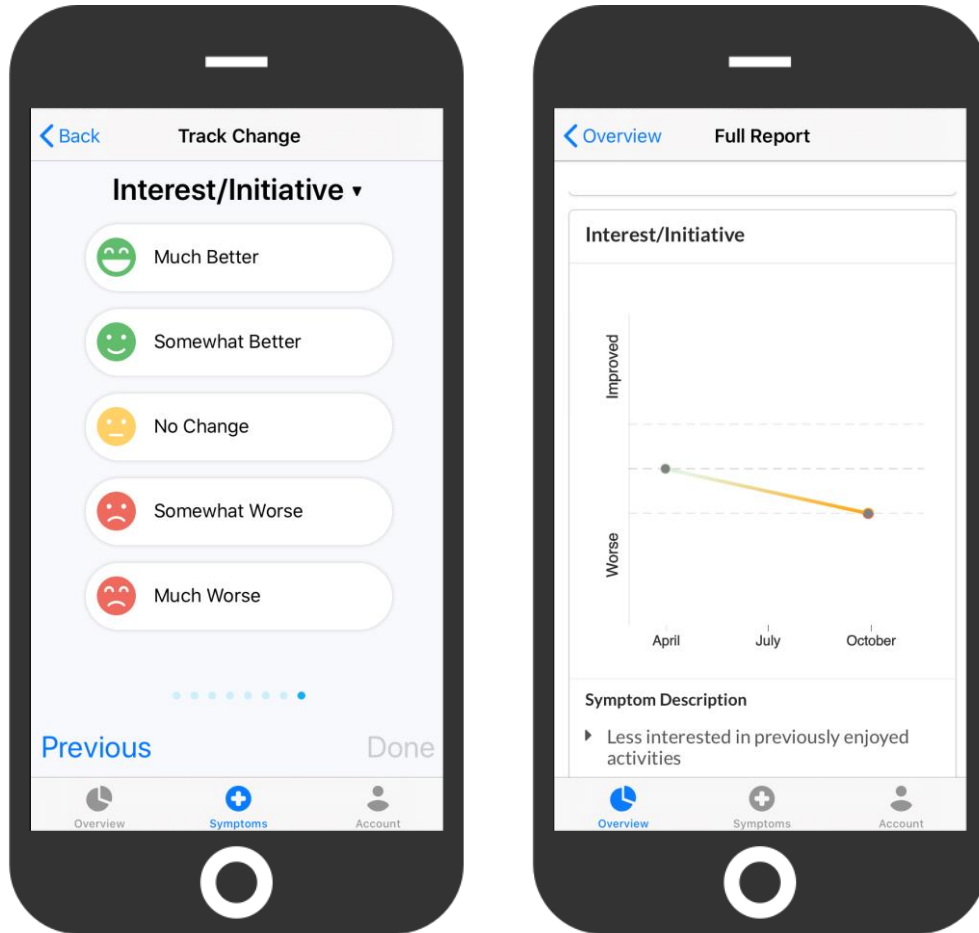
Diagnosis distribution



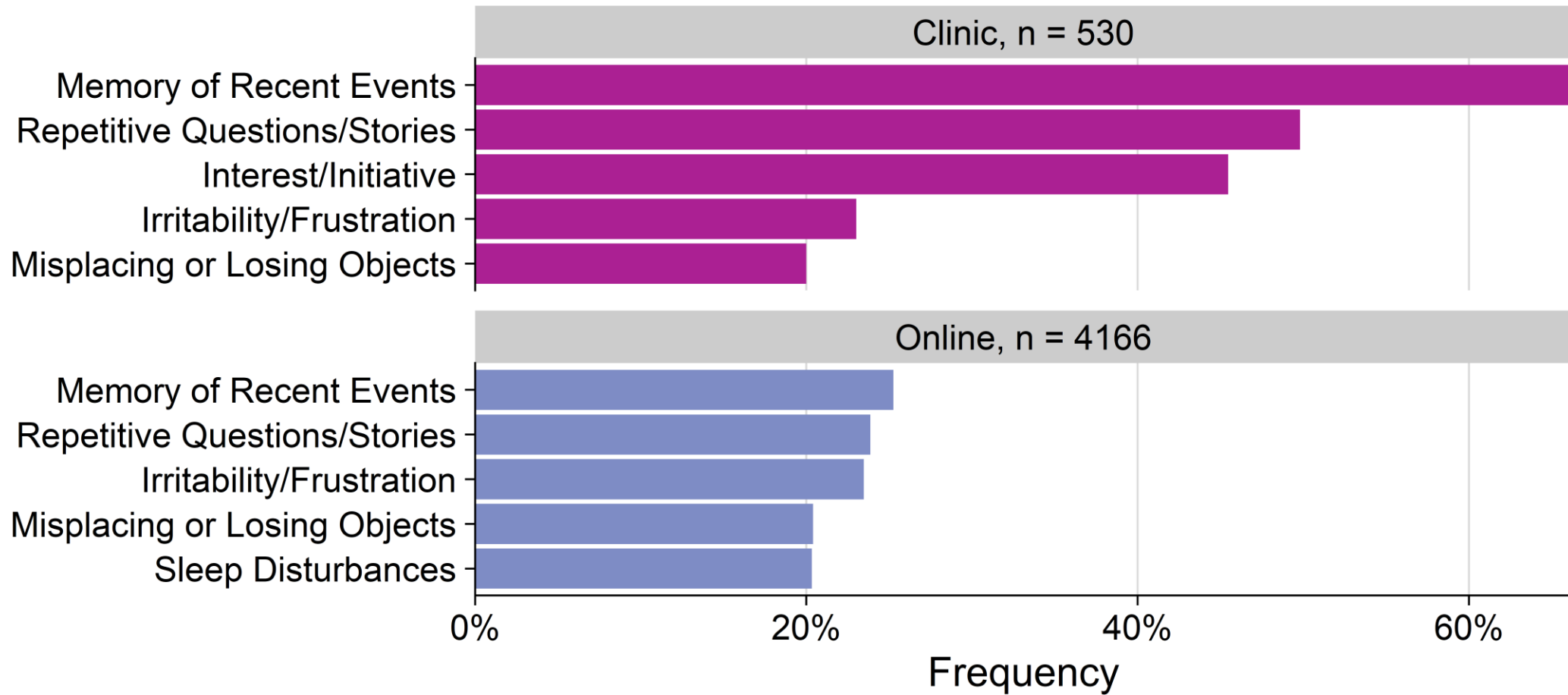
Number of symptoms tracked



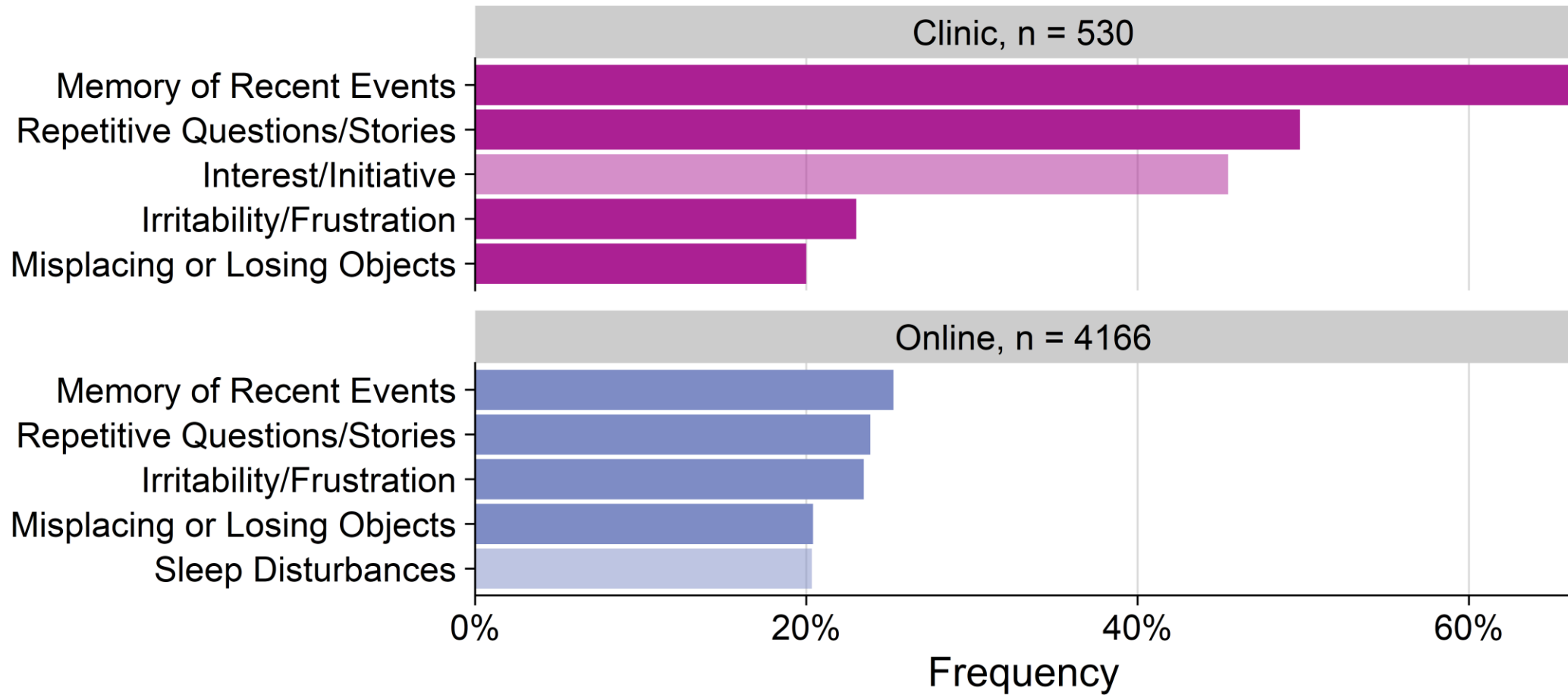
Longitudinal tracking



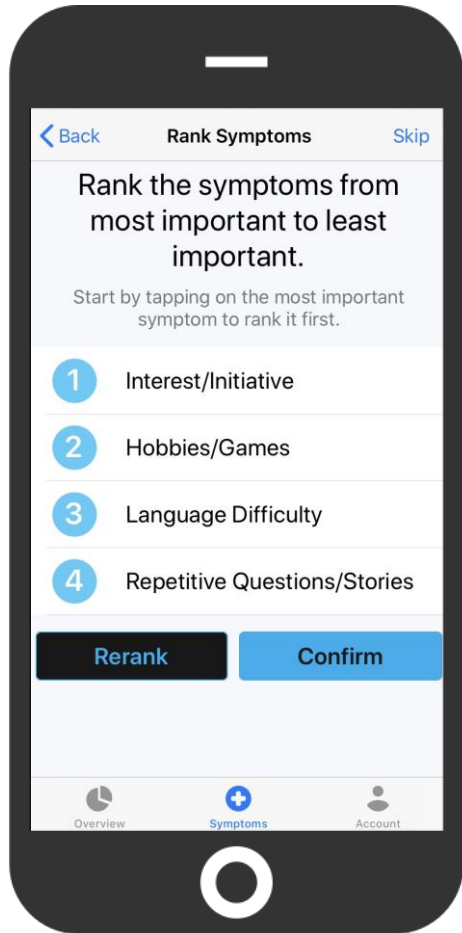
Top 5 most frequent symptoms



Top 5 most frequent symptoms



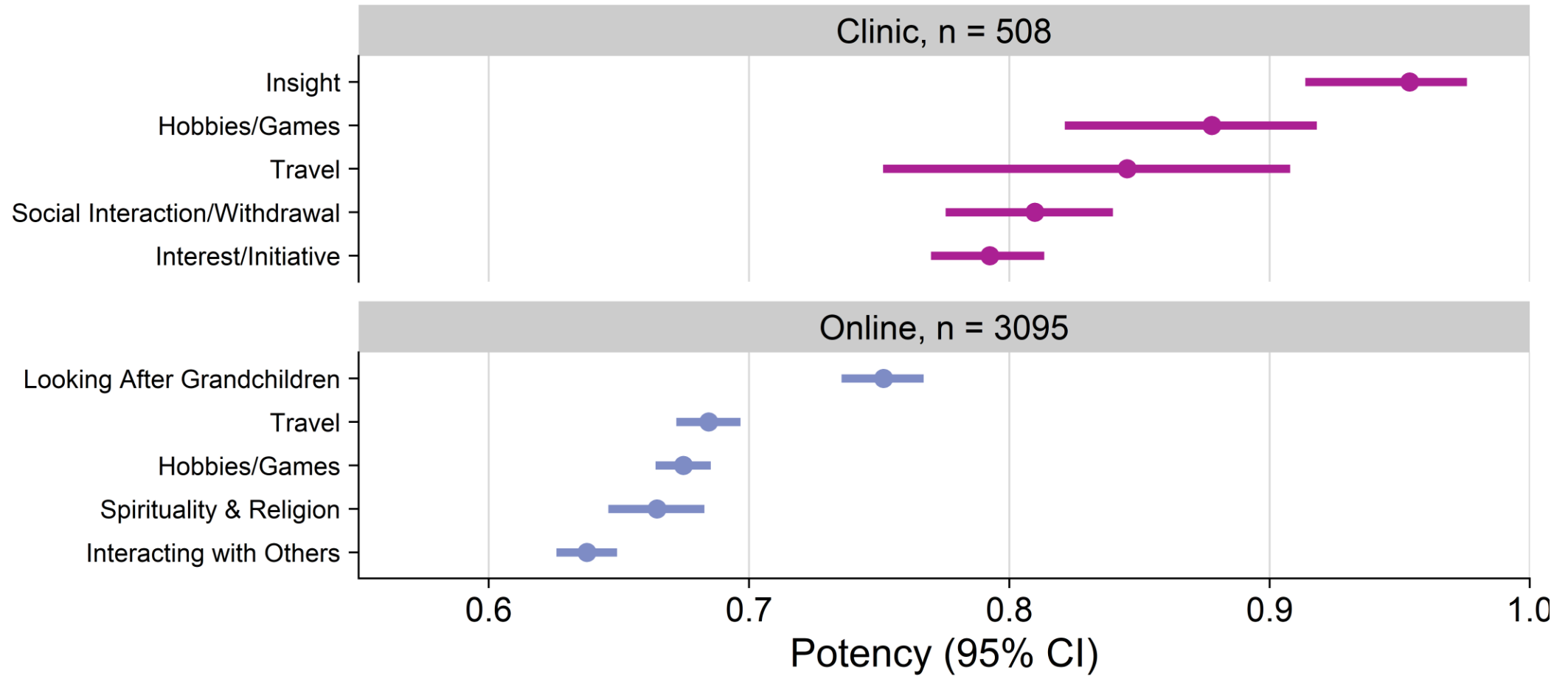
Symptom potency



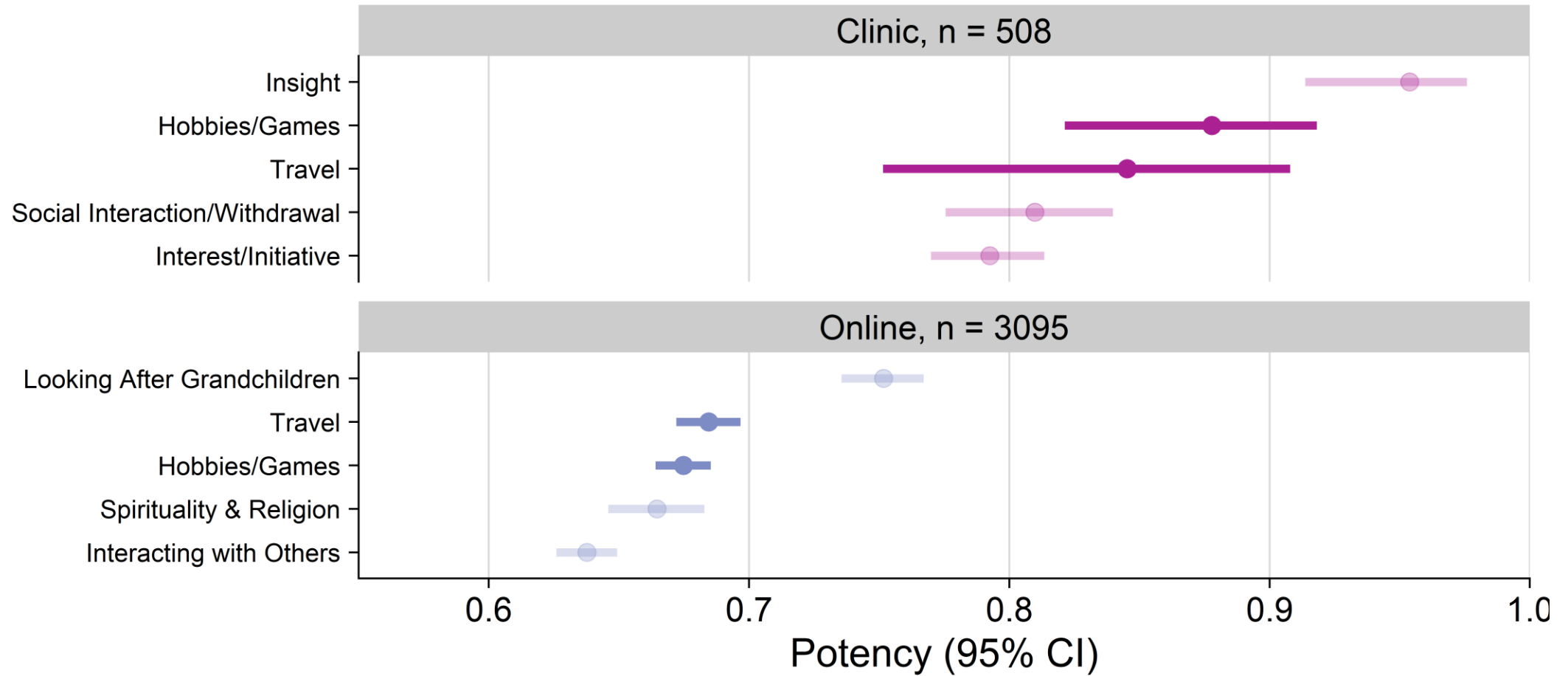
We define **symptom potency** as **relative importance** of a symptom on the individual level.

Symptom	Rank	Weight	Potency
Interest/Initiative	1	4	$4/4 = 1.00$
Hobbies/Games	2	3	$3/4 = 0.75$
Language Difficulty	3	2	$2/4 = 0.50$
Repetitive Questions/Stories	4	1	$1/4 = 0.25$

Top 5 most potent symptoms



Top 5 most potent symptoms



Conclusions

- Tracking tendencies tend to differ by setting (**memory clinic** vs **online-only**), such as:
 - The number of symptoms tracked
 - The likelihood of tracking longitudinally
 - However, the most frequently tracked symptoms were similar between the groups
- An online symptom tracking tool allowed us to understand which symptoms are the most important to people with cognitive impairment and their caregivers.
 - Translating symptom frequency into potency further clarified their impact on peoples' everyday lives.
- These insights are being used to design a **Real World Evidence** study with Nutricia to help people with **Mild Cognitive Impairment** better manage their symptoms and communicate with their doctors.