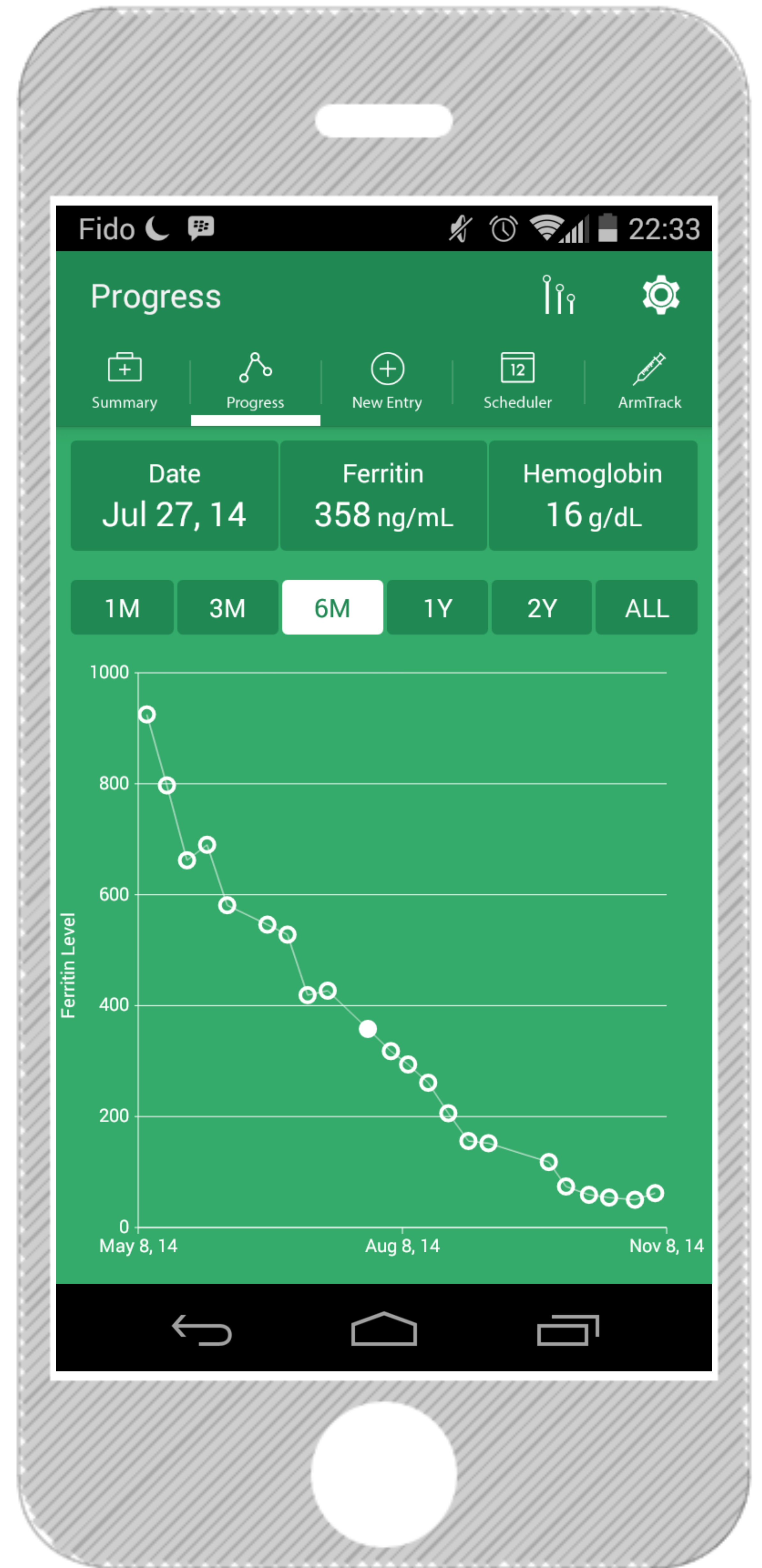
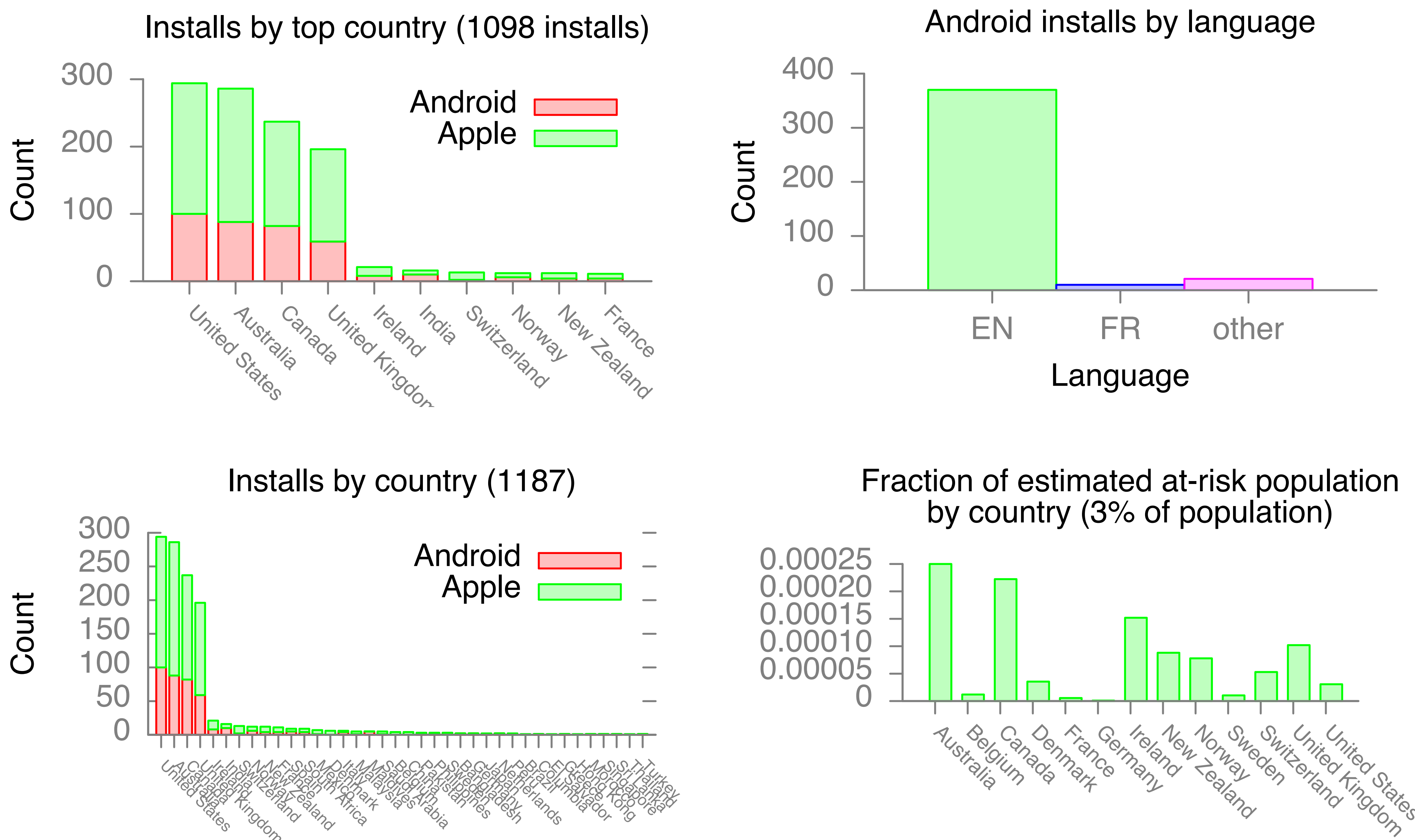


# Determining the utility of mobile applications for managing blood-iron in hemochromatosis treatment

G. Grewal ♦ A. Hamilton-Wright ♦ R. Rogers ✕ J. Carter ♦ A. D'Angelo ♦ J. Liu ♦ S. van der Laan ♦ T. Alexander ♦  
 ♦ University of Guelph   ♦ Mount Allison University   ✕ Canadian Hemochromatosis Society

**Hemochromatosis** is one of the most common, yet understudied, genetic disorders. Affecting millions of people world-wide, hemochromatosis causes dangerous dietary iron buildup within the body, potentially leading to diabetes, liver disease, heart disease, and often premature death.

**Treatment** involves regular phlebotomies to remove iron from the organs. However, currently there is insufficient data to model the likely time before a patient will return to good health after treatment begins. In addition, patients have no easy way of personally monitoring their de-ironing progress or for managing their treatment appointments.



**Iron Tracker** is the first mobile app developed for patients with hemochromatosis. Developed in collaboration with the Canadian Hemochromatosis Society, the app has been downloaded in 38 countries, and allows patients to record and graph their ferritin and hemoglobin values, track the next arm to be used for phlebotomy, and manage their appointments.

Released mid-September, Iron Tracker has over 1000 downloads on Apple and Android. It appears that information about the app is propagating by word of mouth, as indicated by sporadic burst behaviour in downloads. Australia currently has the largest number of downloads, indicating saturation of the interested participant pool has not yet occurred, based on relative population.

The international response to this project has uncovered further complexity in the modelling problem, as different jurisdictions (e.g.; Australia) are using different blood protein based methods to track iron levels.

Overall, this indicates that availability of a group of significant size is available from whom it may be possible to obtain data samples in order to model treatment outcomes.

For additional information: <http://www.irontracker.ca>

