Exploratory analysis: Comparing (10 phenotypes of AAM) x (4 ML models) (A) X = sMRI features at age 22 (FU3)(B) X = sMRI features at age 19 (FU2)ML models Onset LR SVM-lin Frequency SVM-rbf GB **AUDIT** chance AAM phenotypes AUDIT\_growth Combined ours Amount AUDIT\_quick Binge\_growth Combined\_seo Binge 0 20 40 60 80 100 0 20 40 60 80 100 balanced accuracy (%) balanced accuracy (%) (C) X = sMRI features at age 14 (BL)(D) Summary of all scores from (A), (B) and (C) ML models Onset LR SVM-lin Frequency SVM-rbf GB AUDIT non-significant interval **AAM** phenotypes AUDIT\_growth Combined\_ours Amount AUDIT\_quick Binge growth Combined seo Binge 0 20 40 80 100 0 20 40 60 80 100

balanced accuracy (%)

balanced accuracy (%)