

Using genetic risk and math, scientists predict which teen drinkers will develop problem

Scientists have pinpointed lots of factors that increase the risk of alcohol misuse — a bit.

Adolescents who are anxious or impulsive, for example, tend to be at higher risk. Same for those who carry certain genetic variants (dubbed ‘SNPs’) in their genome, and for kids who are abused or neglected. But most studies haven’t looked at enough factors, or at enough kids, to make predictions with much oomph. “It’s hard to look at all of it, but we have this luxury,” Garavan says.

In Nature, Garavan and his colleagues present a new predictive model based on an enormous amount of data—brain scans, genetic screens, personality trait tests, and family and medical histories—from 2,400 teenagers in Europe. The model isn’t by any means a crystal ball, but it can guess which 14-year-olds will become binge drinkers by age 16 with odds far better than chance.

To me, what’s most interesting about the study is that the variables most difficult and expensive to obtain — the genetic markers and brain signatures — are far less important to the model’s predictive power than things like personal history and personality traits. Garavan says his team created a version of the model with only the history and personality measures, and “on their own they do a pretty good job.” That’s good news because it means that doctors, parents or educators might be able to spot high-risk teens without much more than a survey or two.

Read the full, original story: [Why do some teens become binge drinkers? Algorithms answer](#)