



Variations in catheter rates are poorly explained by differences in patient characteristics

Tommy Blanchard, PhD, Len Usvyat, PhD, Jeffery Hymes, MD, Frank Maddux, MD, FAC



Clinical expected catheter rate

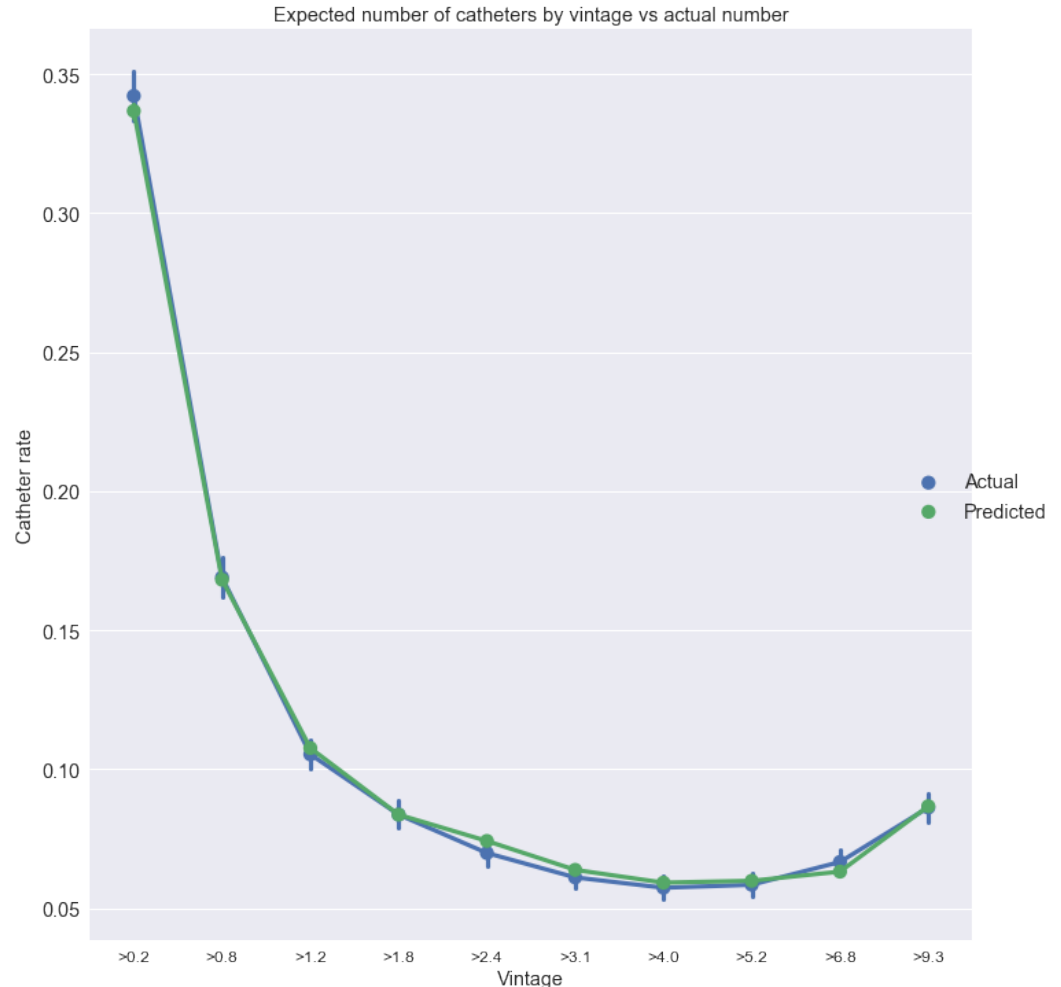


- **Every population is different**
- **Create an expected catheter rate for clinics based on patient population**
 - Age, vintage, and number of comorbidities are taken into account
- **Population/Data: Patients in Fresenius clinic, vintage > 90 days**

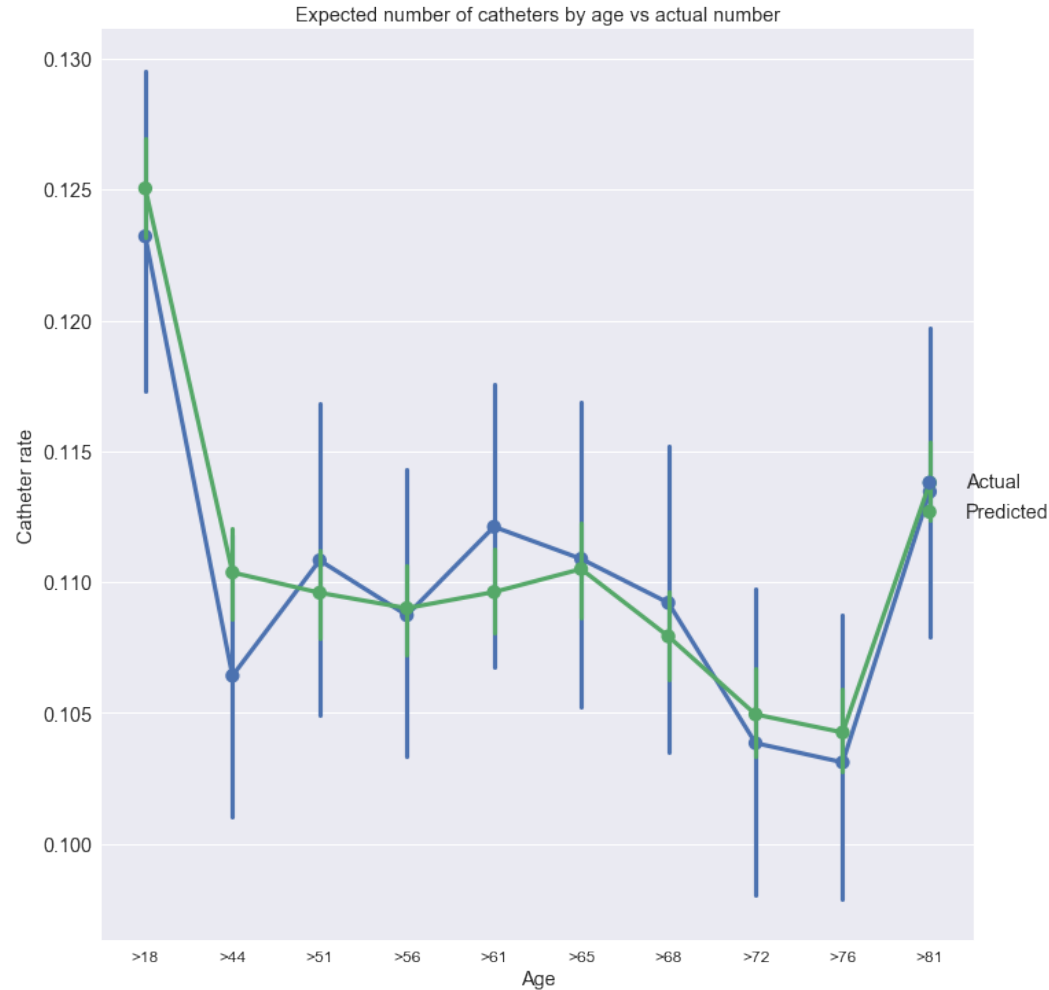
Expected catheters by vintage



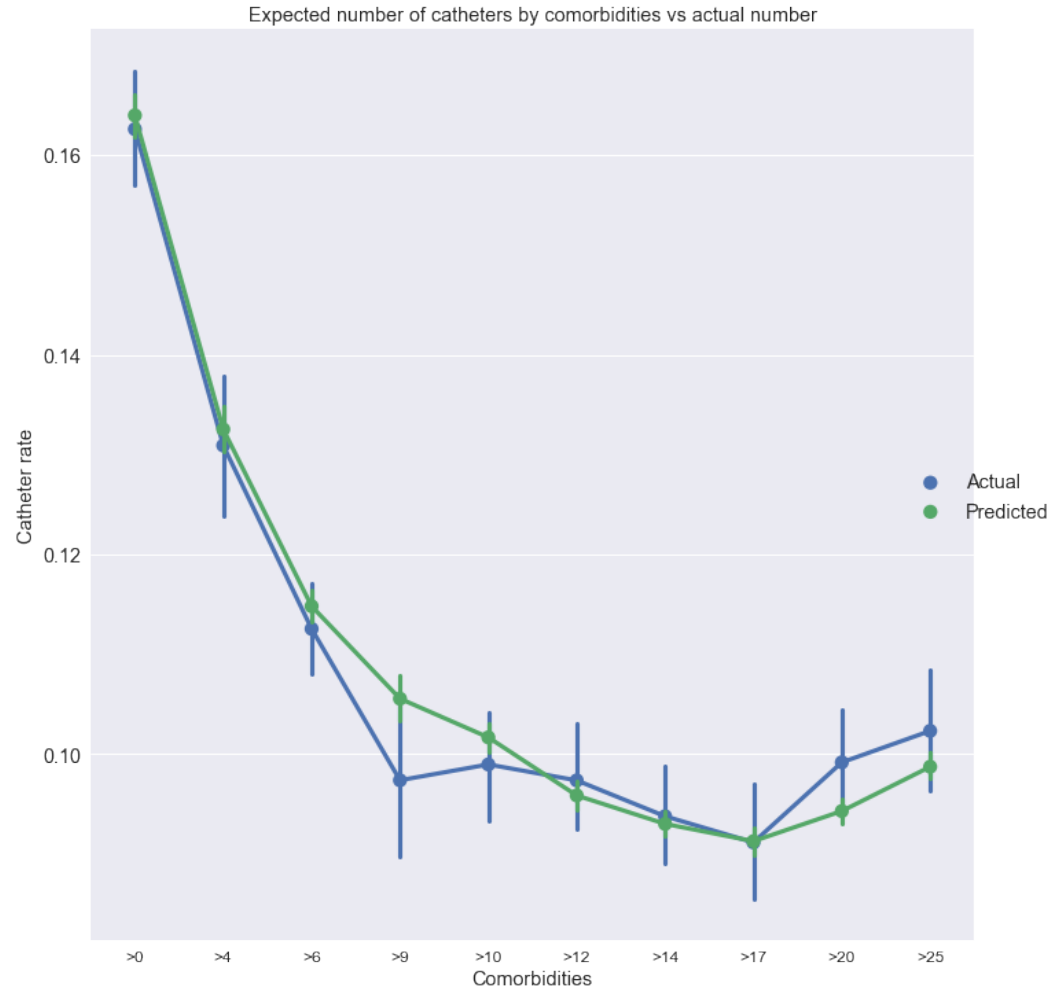
Green is the expected number according to the model, blue is the actual level. The model closely captures the rates of catheters in different vintage buckets.



Expected catheters by age

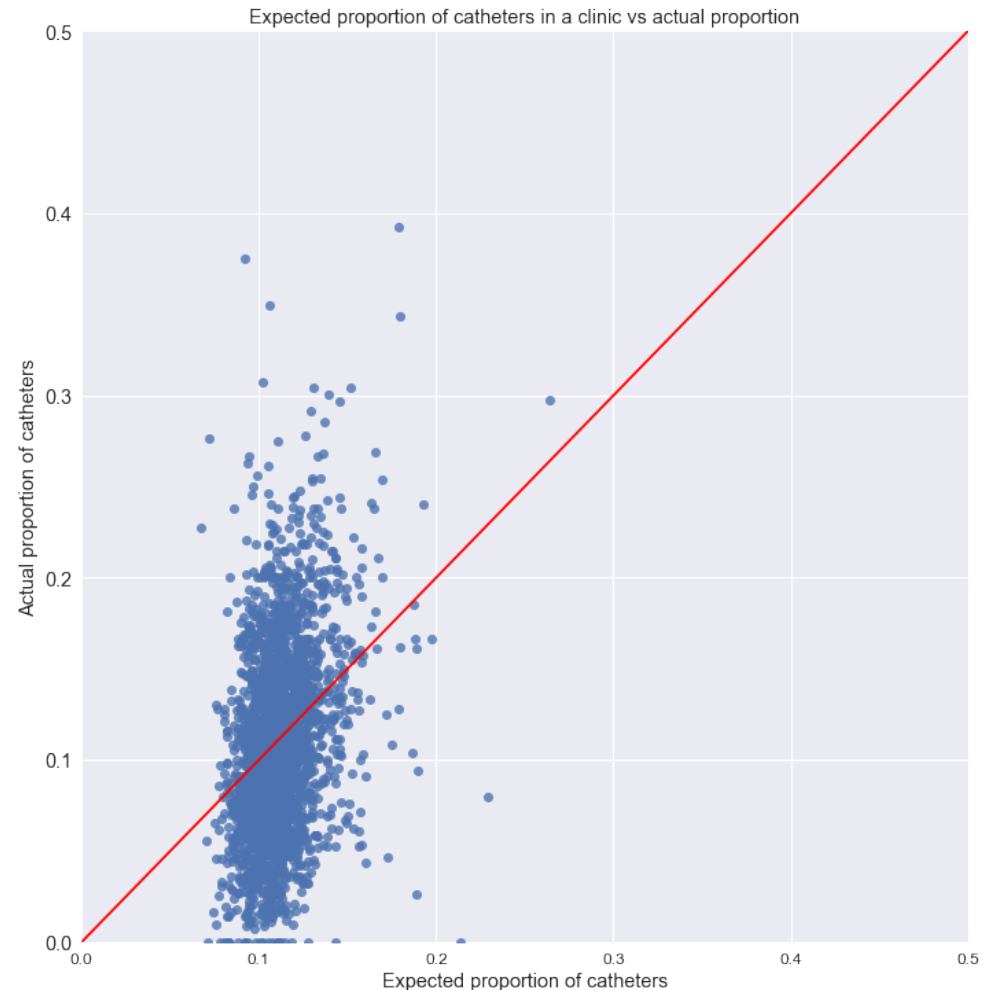


Expected catheters by comorbidities



Proportion of patients with catheters

Not that big a difference in the proportion of patients expected to have catheters, but a huge difference in the actual proportion of catheters





Thank you!

