Evaluating Readmission Prediction Models (C-Statistic)
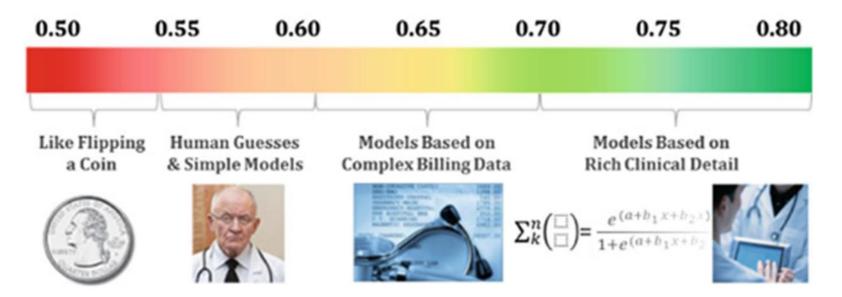
| 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 |

Like Flipping a Coin

Human Guesses & Simple Models

Models Based on Complex Billing Data

Models Based on Rich Clinical Detail

$$\sum_{k}^{n}\left(\frac{\square}{\square}\right) = \frac{e^{(a+b_1 x + b_2 x)}}{1 + e^{(a+b_1 x + b_2)}}$$

Figure 2: Research shows that, when faced with a complex multidimensional predictive decision, such as which patients will be readmitted, even skilled clinicians, case managers and simple models on average do little better than a coin flip. Models based on rich variety of clinical data often do much better. (Courtesy John D'Amore, Diameter Health, All Rights Reserved)