Over the past decade, precision medicine has emerged as a new approach to disease treatment and prevention that aims to maximize effectiveness by accounting for individual variability in biology, environment, and lifestyle. This approach has had notable successes in oncology, cardiology, and other fields including the development of targeted therapies and novel tools for risk stratification and treatment matching. More recently, there has been growing interest in bringing the methods and tools of precision medicine to psychiatry. This presentation will introduce some of the goals of “precision psychiatry”, with a particular focus on leveraging large-scale data resources to address unmet needs in mental healthcare.