Abstract: Despite considerable advances in the last decade in understanding the nature of addiction at a neural level, behavioral treatments for addictive behaviors have advanced relatively little. Neuroimaging and behavioral research has implicated self-regulation and reward processes as potential mechanisms in addiction and health behavior change. Health neuroscience is an emerging field of study that examines how the brain influences health behaviors and how the brain can be changed by changing health behaviors. This approach will be described along with examples of regulation and reward processing neuroimaging studies to provide an overview of how health neuroscience approaches can be applied to studies of addictive behaviors.