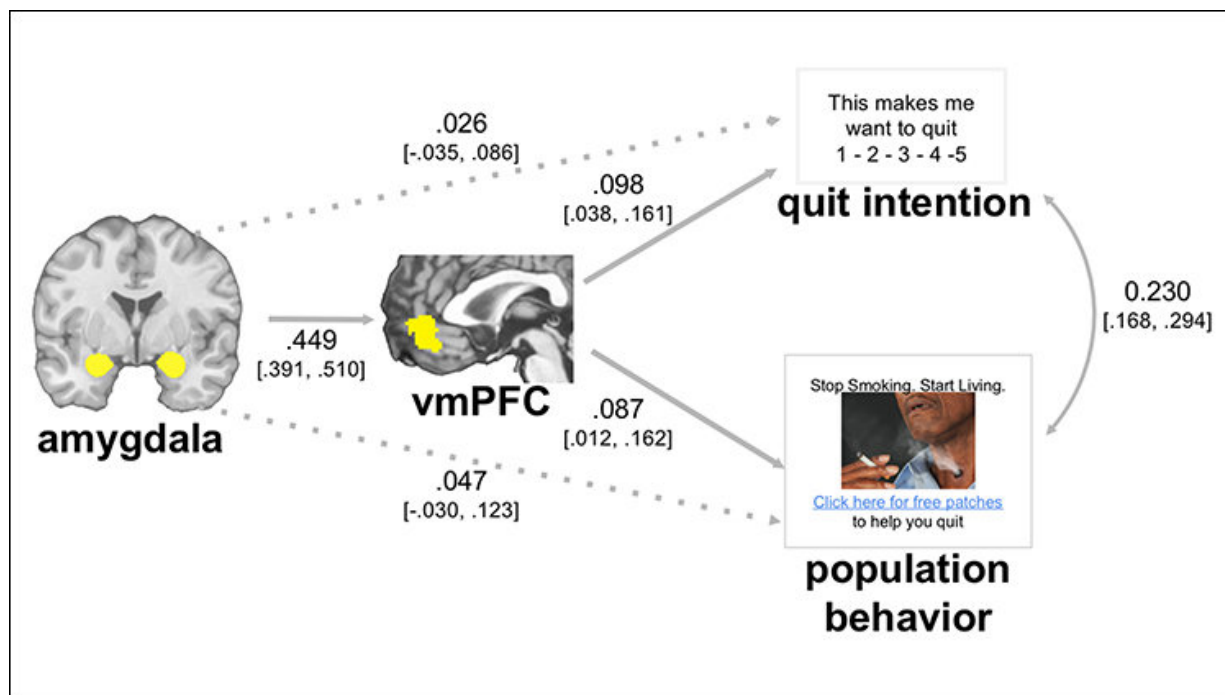


# Brain imaging predicts response to public health campaign

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The relationship between amygdala activity and message impact was mediated by vmPFC activity, for both smoker's own ratings of message-evoked quit intentions within the scanner task and population information seeking behavior (click-through rates) in the New York state email campaign that used the same messages. Credit: Doré et al., *JNeurosci* (2019)

Neuroimaging data obtained from a small group of smokers predicts the influence of a large anti-smoking media campaign targeting likely

smokers, shows a new study published in *JNeurosci*. This approach could help improve informational materials designed to change people's attitudes and behaviors.

Bruce Dore, Emily Falk and colleagues identified a neural pathway between the amygdala—which is sensitive to [emotional content](#)—and the [ventromedial prefrontal cortex](#) that predicted the efficacy of graphic anti-smoking messages. The images that smokers said made them want to quit were the same ones that encouraged likely smokers to click through for more information in a New York State Smokers' Quit Line email campaign.

Further, images that elicited higher amygdala and vmPFC activity were also more successful in the email campaign—a relationship that was particularly clear when smokers showed low expression of a pattern of brain activity characteristic of emotion regulation.

Together these results suggest neuroimaging can be used to predict individual- and population-level responses to persuasive health messages.

**More information:** Neural mechanisms of emotion regulation moderate the predictive value of affective and value-related brain responses to persuasive messages, *JNeurosci* (2019). [DOI: 10.1523/JNEUROSCI.1651-18.2018](#)

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