An analysis of data from eight health care systems confirmed that many physical health conditions are associated with risk of suicide death. A comparison of individuals who died by suicide with randomly selected, matched controls revealed that traumatic brain injury (TBI) increased suicide risk nearly ninefold, and HIV/AIDS and sleep disorders more than doubled it. While hypertension and back pain were associated with smaller increases in risk, they were the most common conditions among those who died by suicide.

After controlling for age, sex, and the presence of mental health and substance use disorders, nine physical conditions were linked to risk of death by suicide: back pain, brain injury, cancer, congestive heart failure, chronic obstructive pulmonary disease, epilepsy, HIV/AIDS, migraine, and sleep disorders. Risk increased substantially for people with two or more conditions.

According to the authors, these findings provide evidence that suicide prevention efforts should target patients with chronic physical health conditions in addition to patients with more well-known risk factors for suicide, such as mental health and substance use disorders and suicidal ideation. They suggested using this information to develop electronic medical record algorithms to improve detection of suicide risk in health care settings.