Researchers from Johns Hopkins Bloomberg School of Public Health studied primary care patients at the Geisinger Clinic via questionnaire to survey nasal and sinus, migraine, and fatigue symptoms in Pennsylvania patients. Geisinger clinics are located throughout central and northern Pennsylvania, both in areas of heavy unconventional natural gas development (UNGD) and areas with none. They discovered that patients who lived in areas with the most UNGD activity (in this case exposure was estimated considering proximity to wells, density of wells, and production levels in wells), were more likely to report these symptoms than those who lived in areas of little to no UNGD activity. Associations were strongest between those living with the most UNGD activity and reporting of these symptoms in combinations of two or more.

To learn more about the study, check out these links:

John Hopkins news release: Study: Fracking associated with migraines, fatigue, chronic nasal and sinus symptoms