

# Researchers involved in first-of-its-kind global study on prevalence of coma

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Graphical abstract. Credit: *Brain Communications* (2022). DOI: 10.1093/braincomms/fcac188

A newly-published study conducted jointly by eighteen neuroscientists from the United States and Europe—including two researchers from The Ohio State University College of Nursing and Wexner Medical Center—and using crowdsourcing as an information-gathering method reveals the first epidemiologic data on coma in the United Kingdom and the U.S.

"In contrast to neurological conditions for which epidemiological data are available, coma results from many different brain injuries or medical diseases," said Daniel Kondziella, a neurologist from Rigshospitalet, Copenhagen (Denmark) University Hospital and a lead author of the study. "Coma is not readily identifiable with conventional methods that utilize [electronic medical records](#), insurance billing codes or clinical surveyance data."

"Crowdsourcing allows us to achieve a representative sampling of participants based on official census data," said Molly McNett, Ph.D., clinical professor at The Ohio State University College of Nursing and a co-author of the study.

"Family members are acutely aware of the impact of coma on their loved ones and can share information with high confidence when a relative has been in a coma recently."

The survey of nearly 2,000 people—994 from the U.K. and 977 from the U.S.—provided data on more than 30,000 first- and second-degree [family members](#) and identified 714 plausible cases of common coma. Among the findings:

- The annual incidence of coma was nearly twice as high in the United States (258 per 100,000 population) as in the U.K. (135 per 100,000).
- The five most common causes of coma in family members were identified as stroke, medically-induced coma, COVID-19, [traumatic brain injury](#) and cardiac arrest.
- The incidence of coma (2 in 1,000 people per year) appears high when compared with commonly encountered conditions such as sepsis.

"Having this data at our disposal is critical not only in our understanding of the incidence of coma, but also in how we approach the condition at the bedside," said Thomas Lawson, MS, lead advanced practice provider in the Neurocritical Care Unit at The Ohio State University Wexner Medical Center who is also a co-author and a Ph.D. candidate at the College of Nursing. "The seriousness of [coma](#) requires us to gain a deeper understanding that can broaden our perspective for this and other disorders of consciousness."

The full article on the study is published in the peer-reviewed journal *Brain Communications*.

**More information:** Daniel Kondziella et al, Incidence and prevalence of coma in the UK and the USA, *Brain Communications* (2022). DOI: [10.1093/braincomms/fcac188](https://doi.org/10.1093/braincomms/fcac188)

Provided by Ohio State University Medical Center

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