

# Researchers outline risk factors for facial gangrene

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Noma, a rare disease found predominantly in underserved areas, causes progressive destruction, or gangrene, of the tissues of the face and jaw within just the span of one week. Now, researchers reporting in *PLOS Neglected Tropical Diseases* have analyzed 74 cases of noma in northwest Nigeria to pinpoint the risk factors for developing the disease.

Noma mostly affects children under the age of 5 years old, and it is estimated that up to 90% of noma cases die. Those who survive have severe facial disfigurements and multiple health problems related to eating, breathing, and social isolation. Noma is most prevalent along the "noma belt" stretching from Senegal to Ethiopia, but cases have been reported elsewhere. The World Health Organization estimates that 140,000 [children](#) contract noma each year.

Elise Farley of Medicins Sans Frontieres in Nigeria, and colleagues studied 74 cases of noma, all admitted to the Noma Children's Hospital in Sokoto between May 2015 and June 2016. Patients were all under the age of 15 at the time of onset. 222 controls were matched to cases by village of residence, current age, and sex. Each participant's parents or caretakers were asked to answer questions about household sociodemographics, living conditions, vaccination history, breastfeeding, and other nutrition-related practices.

While many factors were similar between [cases](#) and controls—including low vaccination rates—some stood out as [risk factors](#) for noma. Children who were fed pap, a corn porridge, every day were at a higher risk of

contracting noma—the researchers hypothesize that eating pap is a proxy for overall poor variation in diet. Children whose mother was their primary caretaker, whose caretaker was married, and who were fed colostrum, the earliest breastmilk after birth, were less likely to get noma.

"Noma is a neglected disease, and current risk factors suggest that intervention efforts could be more effective by focusing on access to health care, the benefits of breastfeeding and a varied diet," the researchers say. "However, more research is needed to better understand the pathogenesis of this [disease](#) in order to improve prevention, early detection and treatment."

**More information:** Farley E, Lenglet A, Ariti C, Jiya NM, Adetunji AS, et al. (2018) Risk factors for diagnosed noma in northwest Nigeria: A case-control study, 2017. *PLOS Neglected Tropical Diseases* 12(8): e0006631. [doi.org/10.1371/journal.pntd.0006631](https://doi.org/10.1371/journal.pntd.0006631)

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