

Anthrax Surveillance Data analysis: (2020-23)

Key Findings:

Geographical distribution of suspected human cutaneous anthrax cases from 2020-2023 in Bangladesh

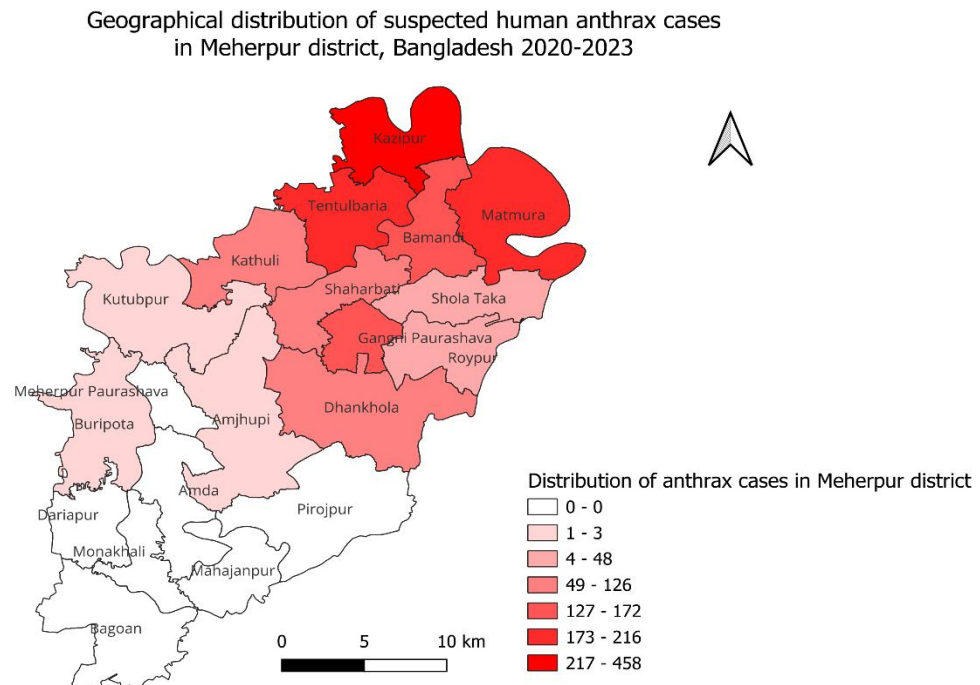


Fig 3: The union-wise geographical distribution of suspected human cutaneous anthrax cases in Meherpur district from 2020-2023 in Bangladesh

Figure 3 reveals Kazipur Union reported the highest number of cases over the four years, with a total of 458 cases. The yearly breakdown shows an increasing trend, with 101 cases in 2020, and peaking at 160 cases in 2023, Matmura and Gangni Paurashava also had high frequencies, with 216 and 172 cases respectively. Bamandi recorded 167 cases, with an increasing trend over the years, reaching 80 cases in 2023. Kathuli and Tentulbaria also had moderate case counts, with 117 and 199 cases respectively.

Several unions, including Amda, Bagoan, Dariapur, Mahajanpur, Meherpur Paurashava, Monakhali, and Pirojpur, reported zero cases across all four years. Unions such as Amjhupi, Buripota, and Kutubpur reported only isolated cases, with frequencies remaining at or below three cases over the entire period.

The seasonal variation of suspected cases of human cutaneous anthrax according to year from 2020-2023

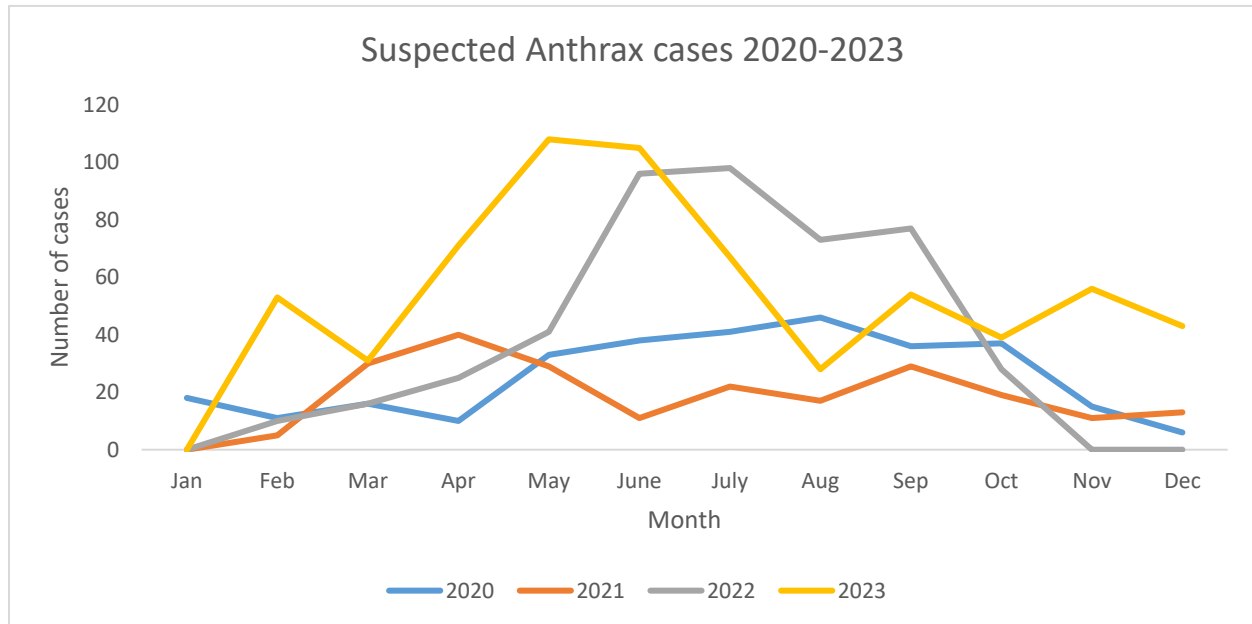


Fig 5: Seasonal variation of suspected human anthrax cases in Bangladesh according to year from 2020-2023

Figure provides data on the monthly distribution of suspected human anthrax cases in Bangladesh from 2020 to 2023, highlighting seasonal and yearly variations:

- The total number of cases increased yearly, from 307 cases in 2020 to 655 cases in 2023.
- Across 2020 to 2023, the highest incidence of suspected anthrax cases generally occurred during the months of May to September. In 2022 and 2023, the highest counts were in May (41 cases in 2022, 108 in 2023) and June (96 in 2022, 105 in 2023).
- The number of cases consistently dropped during the months of November to February. In 2022, no cases were recorded in November or December, while in 2023, cases declined sharply after September but saw an unusual spike in November (56 cases).
- The data also show substantial variation in the monthly case numbers from year to year. For example, In April 10 cases were reported in 2020 but 71 in 2023, and in June there were 11 cases in 2021 to 105 in 2023

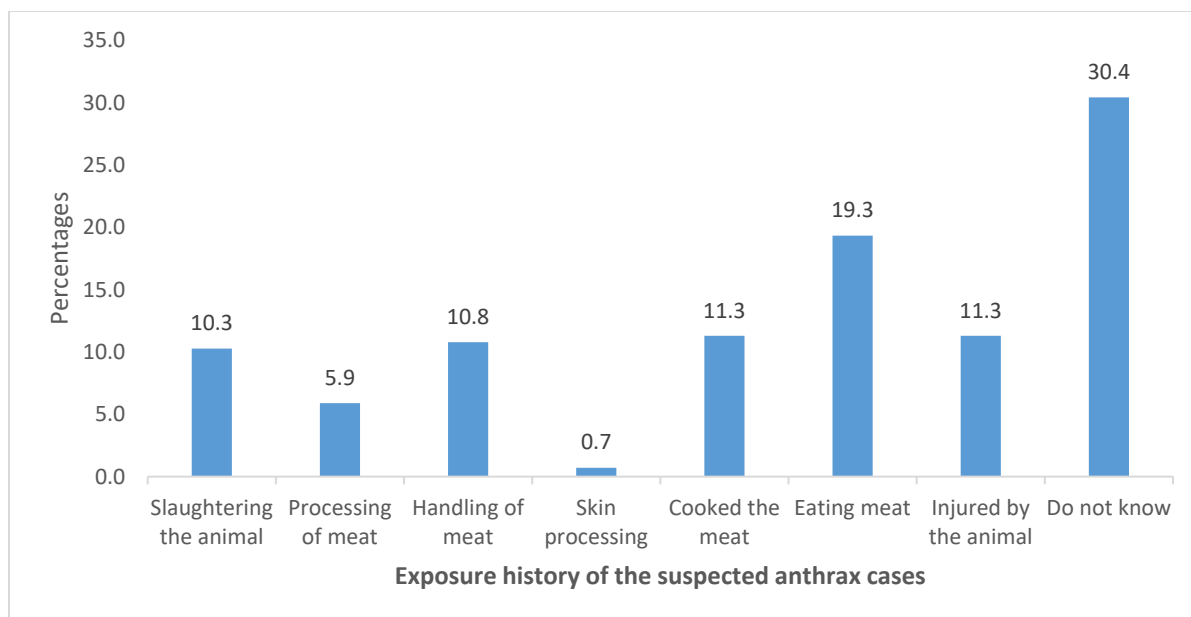


Fig: Exposure characteristics of the suspected human anthrax cases in Bangladesh (2020-2023)

Figure represents various types of exposures to suspected anthrax among individuals, along with their respective frequencies and percentages. The highest reported exposure was from individuals who did not know their exposure source, accounting for 30.4% (299 cases). This uncertainty could indicate gaps in awareness about transmission routes or could result from indirect contact with anthrax sources.

Eating meat was the second-highest reported exposure, accounting for 19.3% (190 cases). Other meat-related exposures included Cooking the meat (11.3%, 111 cases), Handling of meat (10.8%, 106 cases), and Processing of meat (5.9%, 58 cases).

Animal-related injuries were reported by 11.3% (111 cases), indicating exposure through direct physical interaction with potentially infected animals.

Slaughtering animals was also a significant exposure, with 10.3% (101 cases) indicating risk associated with direct handling during slaughter, and Skin processing (0.7%, 7 cases) was the least reported, suggesting that fewer individuals were exposed through activities like handling animal hides or pelts.

Anthrax data 2020-23

Animal exposure	Frequency	Percentage
Cow	335	38.2
Goat	508	58.0
Both	28	3.2
Others	5	0.6