

Heterogeneity and Determinants of Ebola Transmission: insights from the 10th DRC outbreak

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The 10th Ebola outbreak in the DRC (2018–2020) was one of the deadliest on record — and one of the most disrupted, plagued by violence, mistrust, and incomplete contact tracing. This presentation digs into its reconstructed chains of transmissions to see what they tell us on our response.

The data tell a striking story: a small minority of cases — around 18% — were responsible for 80% of all infections. Yet this superspreading pattern held steady even during the most violent periods, suggesting the outbreak wasn't driven by biology gone wrong, but by our inability to reach and isolate cases in time. Isolation, contact follow-up, and ring vaccination all demonstrably cut transmission when they could be applied.

As a new Ebola outbreak emerges, the lesson is clear: the tools work. The challenge — now as then — is protecting the people and systems needed to deploy them under pressure.