

Executive summary

Email remains one of the most common sources of HIPAA-reportable breaches. In 2025, healthcare organizations reported 170 email-related incidents to the HHS Office for Civil Rights.

While the total number of incidents declined compared to the year prior, the underlying conditions that enable email breaches remain widespread and largely unchanged.

Our analysis found that most breached organizations shared the same foundational gaps. Nearly three quarters lacked effective DMARC enforcement – the policy that tells receiving servers whether to reject, quarantine, or ignore emails that fail authentication. Over half relied on permissive or missing SPF records, which verify whether an email was actually sent from a server authorized to send on behalf of that domain. None enforced MTA-STS, which requires encrypted connections between mail servers and prevents attackers from intercepting messages in transit. These controls are baseline protections that have been recommended for years.

Microsoft 365 continued to lead the breach landscape. 53% of breached organizations relied on Microsoft 365 as their primary email platform. The presence of multiple security tools did not consistently correlate with stronger authentication posture or reduced breach risk.

Paubox survey research shows healthcare staff are increasingly using AI tools without formal oversight. As workflows evolve, existing email security gaps carry greater potential impact.

The takeaway for healthcare IT and compliance leaders is straightforward. Email risk is driven by incomplete configuration, and security controls that have not kept pace with modern threats.

BY THE NUMBERS

170

email-related breaches occurred in 2025

53%

of email-related healthcare breaches occurred on Microsoft 365

41%

of breached organizations fell into a high-risk category based on their email configuration

74%

lacked effective DMARC enforcement

Stop email phishing attacks with AI security

Surface hidden threats with generative AI email security that learns and evolves.

[Talk to an expert](#)

