Additional file 1

Private healthcare facilities' participation in Uganda's viral hemorrhagic fever surveillance program: contributions, selective case capture, and underutilized early-warning potential

Supplementary analyses, aggregate data and reporting checklists

Contents

Table S1. Characteristics of suspected VHF specimen submissions by facility ownership 2
Table S2. Association between private facility ownership and each outcome: primary and sensitivity analyses 3
Statistical methods and reproducibility 4
Figure S1. Record selection for the principal analyses 5
Table S3. Full coefficients of the primary GLMMs 6
Table S4. Random effects, fit and numerical checks 6
Table S5. Recorded symptoms by ownership 8
Table S6. Primary and sensitivity analyses 9
Table S7. Effect modification by Kampala 11
Table S8. Private ownership subgroups versus public 11
Table S9. Districts with at least 20 submissions 12
Table S10. All 44 calendar months 13
Table S11. Calendar-month outbreak groupings 13
Table S12. Aggregate dataset 14
STROBE reporting checklist 19
RECORD extension reporting checklist 21

Table S1. Characteristics of suspected VHF specimen submissions by facility ownership

Uganda, 1 January 2023 to 14 August 2026. Data are n (%). Percentages are column percentages within each ownership group unless otherwise stated. The analytic unit is a single specimen submission. NA, not applicable.

	Public (n = 7,425)	Private (n = 504)	Total (n = 7,929)
Ownership category			
Private not-for-profit	NA	245 (48.6%)	245 (3.1%)
Private for-profit	NA	259 (51.4%)	259 (3.3%)
Year of report[a]			
2023	1,969 (26.7%)	45 (9.1%)	2,014 (25.6%)
2024	570 (7.7%)	52 (10.5%)	622 (7.9%)
2025	3,218 (43.6%)	130 (26.2%)	3,348 (42.5%)
2026 (to 14 August)	1,617 (21.9%)	269 (54.2%)	1,886 (24.0%)
Geographical stratum			
Kampala	4,683 (63.1%)	376 (74.6%)	5,059 (63.8%)
All other districts	2,742 (36.9%)	128 (25.4%)	2,870 (36.2%)
Patient status at reporting			
Alive	1,768 (23.8%)	237 (47.0%)	2,005 (25.3%)
Dead	4,462 (60.1%)	122 (24.2%)	4,584 (57.8%)
Unknown	1,195 (16.1%)	145 (28.8%)	1,340 (16.9%)
Clinical reporting			
No symptom recorded on form	2,789 (37.6%)	86 (17.1%)	2,875 (36.3%)
At least one symptom recorded	4,636 (62.4%)	418 (82.9%)	5,054 (63.7%)
Recorded bleeding	859 (11.6%)	148 (29.4%)	1,007 (12.7%)
Laboratory result			
Positive for any VHF pathogen	128 (1.7%)	21 (4.2%)	149 (1.9%)
Pathogen among positive submissions[b]			
Ebola virus	22 (68.8%)	10 (31.2%)	32
Crimean–Congo haemorrhagic fever virus	24 (85.7%)	4 (14.3%)	28
Rift Valley fever virus	82 (92.1%)	7 (7.9%)	89

[a] The year block excludes the 59 submissions without a parsable case-report date (denominators: public 7,374; private 496; total 7,870). All other rows use the full analytic population of 7,929.

[b] Pathogen rows are row percentages of positive submissions for that pathogen. VHF, viral haemorrhagic fever.

Table S2. Association between private facility ownership and each outcome: primary and sensitivity analyses

Analysis	n	aOR (95% CI)	p value
Test positivity			
Primary GLMM, year-adjusted	7,848	3.44 (1.95–6.05)	< 0.0001
Fixed-effect logistic, district-clustered SE	7,848	3.40 (1.41–8.25)	0.0066
Additionally adjusted for testing laboratory	7,848	3.52 (1.99–6.24)	< 0.0001
Additionally adjusted for patient status at reporting	7,848	2.40 (1.34–4.28)	0.0031
Restricted to patients alive at reporting	1,972	1.47 (0.78–2.77)	0.24
Excluding 2026	5,984	2.12 (0.86–5.23)	0.10
Firth-penalised logistic (Wald interval)	7,848	3.38 (2.06–5.57)	< 0.0001
Disaggregated: PNFP vs public	7,848	4.19 (2.03–8.62)	0.0001
Disaggregated: PFP vs public	7,848	2.82 (1.32–6.05)	0.0076
Recorded bleeding			
Primary GLMM, year-adjusted	7,848	4.97 (3.86–6.41)	< 0.0001
Fixed-effect logistic, district-clustered SE	7,848	4.99 (2.30–10.86)	< 0.0001
Additionally adjusted for testing laboratory	7,848	4.76 (3.69–6.14)	< 0.0001
Additionally adjusted for any symptom recorded	7,848	3.85 (2.98–4.97)	< 0.0001
Restricted to forms with at least one symptom recorded	5,015	3.33 (2.55–4.34)	< 0.0001
Disaggregated: PNFP vs public	7,848	5.87 (4.24–8.13)	< 0.0001
Disaggregated: PFP vs public	7,848	4.14 (2.92–5.87)	< 0.0001
Alive at reporting			
Primary GLMM, year and laboratory adjusted	6,520	5.43 (4.09–7.21)	< 0.0001
Fixed-effect logistic, district-clustered SE	6,520	5.39 (3.78–7.67)	< 0.0001
Bounding: all missing assumed dead	7,848	3.74 (3.01–4.66)	< 0.0001
Bounding: all missing assumed alive	7,848	4.00 (3.03–5.27)	< 0.0001
Bounding: private missing dead, public missing alive	7,848	0.53 (0.42–0.67)	< 0.0001
Bounding: private missing alive, public missing dead	7,848	15.74 (12.42–19.95)	< 0.0001
Disaggregated: PNFP vs public	6,520	5.65 (3.83–8.34)	< 0.0001
Disaggregated: PFP vs public	6,520	5.22 (3.53–7.72)	< 0.0001

aOR, adjusted odds ratio; CI, confidence interval; GLMM, generalized linear mixed model; PFP, private for-profit; PNFP, private not-for-profit; SE, standard error. Primary models are generalized linear mixed models with a district-level random intercept, fitted by maximum likelihood with adaptive Gauss–Hermite quadrature (nAGQ = 10) and adjusted for calendar year. District-level random-effect variances and intraclass correlation coefficients were: test positivity 3.50, ICC 0.52; recorded bleeding 1.92, ICC 0.37; alive at reporting 4.40, ICC 0.57. Records with an unassigned district (n = 22) are excluded from all models containing the district random intercept. Clustered logistic inference uses HC0 with $G/(G-1)$. Firth limits and p values in this table are Wald-based; profile penalised-likelihood results appear in Table S6. Bounding rows are deterministic scenarios, not imputed results. Full model coefficients are in Table S3.

Statistical methods and reproducibility

Descriptive comparisons use counts, proportions, Wilson 95% confidence intervals (CIs) and two-sided Fisher exact tests. Symptom-count comparisons use the Mann–Whitney test; SDs are sample SDs. Benjamini–Hochberg q values are computed jointly across all 25 symptoms plus the composite bleeding variable. Statistical significance is $p < 0.05$ for unadjusted tests and $q < 0.05$ for this exploratory family. All 16 initially significant comparisons retain $q < 0.05$.

Primary models are logit-link generalized linear mixed models (GLMMs), with a district random intercept and calendar year as a factor (reference 2023). Alive-at-reporting models additionally adjust for testing laboratory (reference CERSL). Estimation uses maximum likelihood and 10-node adaptive Gauss–Hermite quadrature. CIs and tests use observed-Hessian Wald inference. The latent-scale ICC is district variance / (district variance + $\pi^2/3$). Table S4 gives convergence diagnostics and AIC; AIC values are fitted-model criteria, not comparisons with a separately fitted null model.

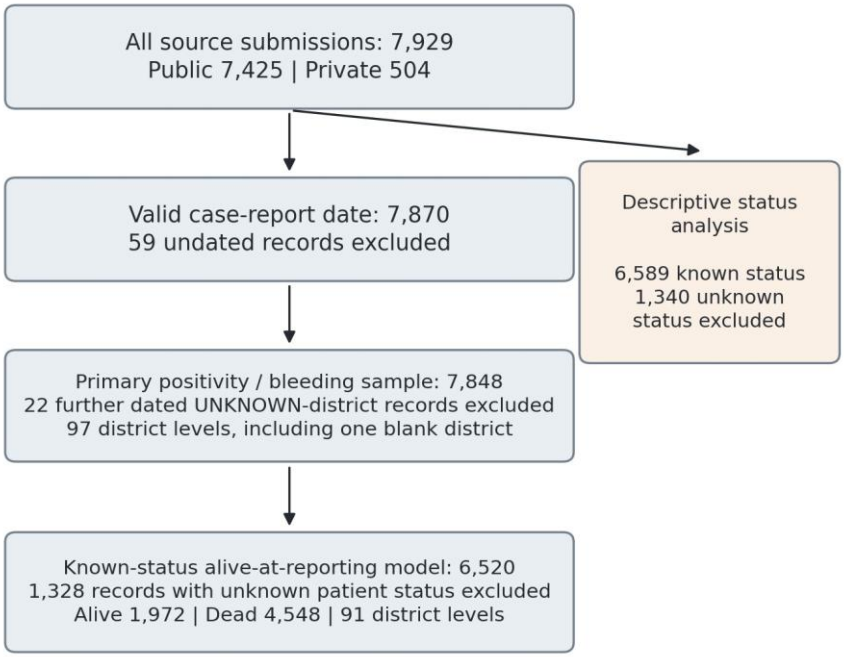
District fixed-effect logistic models use district-clustered HC0 covariance with $G/(G - 1)$, where G is the number of clusters. Positivity sensitivity analyses include laboratory and reporting-status adjustment (unknown status retained as a category), alive-only restriction, exclusion of 2026, and Firth penalisation. The Firth model adjusts for calendar year and Kampala and has no district random intercept. Its main interval/test is Wald-based; profile penalised-likelihood results are reported separately. Bleeding sensitivity analyses adjust for any affirmative symptom and restrict to submissions with at least one affirmative symptom.

Geographic interaction models are logistic models with year, ownership, Kampala and the ownership-by-Kampala term; alive models additionally adjust for laboratory. Interaction inference is clustered by district. Separately fitted Kampala strata use model-based SEs because Kampala is one cluster; the remaining stratum uses clustered SEs. Crude remaining-district groups include UNKNOWN and blank records; adjusted models follow the above exclusions and retain the one blank record in the non-Kampala indicator group.

Four deterministic status scenarios assign unknowns to dead in both sectors, alive in both, private dead/public alive, or private alive/public dead. The additional fractional sensitivity sets every unknown public status to an expected alive outcome of 1 and varies a common expected death fraction for unknown private records. Thresholds are conditional point estimates, with no uncertainty intervals; this is neither multiple imputation nor a model of actual missing outcomes.

The May–June 2026 Ebola-specific contrast is post-hoc. Additional verification checks comprise exclusion of the blank-district record, 20-node quadrature, profile Firth inference and the explicitly specified fractional tipping curve. Twenty-node verification changes primary ownership ORs by less than 0.001%. Software: Python 3.12.14, NumPy 2.3.5, pandas 2.2.3 and SciPy 1.17.0.

Figure S1. Record selection for the principal analyses



One UNKNOWN-district record is among the 59 undated records; the full extract therefore contains 23 UNKNOWN-district records, of which 22 are dated. The single blank-district record is retained as a separate primary model level; excluding it yields 7,847 positivity/bleeding records and 6,519 known-status records. No rows were removed as duplicates because unique patient and specimen identifiers were unavailable.

Table S3. Full coefficients of the primary GLMMs

Reference categories: public ownership; year 2023; and, for the alive-at-reporting model, CERSL. Estimates and SEs are on the log-odds scale. Exponentiated intercepts are baseline conditional odds, rather than exposure odds ratios.

Any VHF positivity

Term	Estimate	SE	exp(estimate) (95% CI)	p value
Intercept	−4.8238	0.4503	0.008 (0.003–0.019)	< 0.0001
Private vs public	1.2341	0.2888	3.44 (1.95–6.05)	< 0.0001
2024 vs 2023	1.0869	0.2634	2.97 (1.77–4.97)	< 0.0001
2025 vs 2023	−1.1862	0.3060	0.31 (0.17–0.56)	0.0001
2026 vs 2023	−0.0932	0.2781	0.91 (0.53–1.57)	0.7375

Recorded bleeding

Term	Estimate	SE	exp(estimate) (95% CI)	p value
Intercept	−1.1788	0.1914	0.31 (0.21–0.45)	< 0.0001
Private vs public	1.6043	0.1292	4.97 (3.86–6.41)	< 0.0001
2024 vs 2023	1.7670	0.1409	5.85 (4.44–7.72)	< 0.0001
2025 vs 2023	0.0430	0.1179	1.04 (0.83–1.32)	0.7150
2026 vs 2023	0.0106	0.1291	1.01 (0.78–1.30)	0.9345

Alive at reporting

Term	Estimate	SE	exp(estimate) (95% CI)	p value
Intercept	1.9416	0.3239	6.97 (3.69–13.15)	< 0.0001
Private vs public	1.6927	0.1446	5.43 (4.09–7.21)	< 0.0001
2024 vs 2023	1.8151	0.1926	6.14 (4.21–8.96)	< 0.0001
2025 vs 2023	−0.9002	0.1243	0.41 (0.32–0.52)	< 0.0001
2026 vs 2023	1.3056	0.1480	3.69 (2.76–4.93)	< 0.0001
CPHL mobile vs CERSL	−1.7024	0.2811	0.18 (0.11–0.32)	< 0.0001
UVRI vs CERSL	−1.2693	0.1371	0.28 (0.21–0.37)	< 0.0001

Models use district random intercepts and 10-node adaptive quadrature. Primary ownership coefficients were independently reproduced. Positivity and bleeding N = 7,848; known-status alive-at-reporting N = 6,520.

Table S4. Random effects, fit and numerical checks

Outcome	N	Events	District levels	Variance	SD	ICC	AIC
Any VHF positivity	7,848	145	97	3.4974	1.8701	0.5153	1147.9
Recorded bleeding	7,848	996	97	1.9170	1.3846	0.3682	4700.7
Alive at reporting	6,520	1,972	91	4.3958	2.0966	0.5719	4749.0

Events are positive submissions (145), recorded bleeding (996), or alive at reporting (1,972), as appropriate. The one blank-district record is included in the positivity/bleeding samples and the known-status alive sample. AIC counts the fixed-effect parameters and one variance parameter.

Numerical diagnostics at 10 quadrature nodes

Outcome	Maximum absolute score	Smallest Hessian eigenvalue	Variance	Optimizer message
Any VHF positivity	3.1e-06	4.0446	Positive	Standard stop
Recorded bleeding	1.4e-05	21.0281	Positive	Precision-loss warning
Alive at reporting	3.3e-05	7.8118	Positive	Precision-loss warning

Bleeding and alive fits produced optimizer precision-loss messages, but final scores were below 0.00004, the Hessians were positive definite, and the estimated variances were positive.

Primary ownership estimates at 10 and 20 nodes

Outcome	OR, 10 nodes	OR, 20 nodes	Relative change
Any VHF positivity	3.435195	3.435167	−0.000821%
Recorded bleeding	4.974361	4.974364	+0.000047%
Alive at reporting	5.434374	5.434421	+0.000861%

Table S5. Recorded symptoms by ownership

Private N = 504; public N = 7,425. Percentages and 95% Wilson CIs use the full sector denominator. Difference is private minus public in percentage points (pp). Fisher tests are two-sided; BH q values use all 26 comparisons.

Symptom	Private, n; % (95% CI)	Public, n; % (95% CI)	Difference (pp)	Fisher p	BH q
Vomiting	186; 36.9% (32.8–41.2)	1,251; 16.8% (16.0–17.7)	+20.1	< 0.0001	< 0.0001
Composite bleeding	148; 29.4% (25.6–33.5)	859; 11.6% (10.9–12.3)	+17.8	< 0.0001	< 0.0001
Fever	232; 46.0% (41.7–50.4)	2,118; 28.5% (27.5–29.6)	+17.5	< 0.0001	< 0.0001
Diarrhoea	140; 27.8% (24.0–31.8)	879; 11.8% (11.1–12.6)	+15.9	< 0.0001	< 0.0001
Fatigue	189; 37.5% (33.4–41.8)	2,188; 29.5% (28.4–30.5)	+8.0	0.0002	0.0007
Anorexia	151; 30.0% (26.1–34.1)	1,705; 23.0% (22.0–23.9)	+7.0	0.0005	0.0016
Abdominal pain	159; 31.5% (27.6–35.7)	1,838; 24.8% (23.8–25.7)	+6.8	0.0010	0.0029
Headache	165; 32.7% (28.8–37.0)	1,979; 26.7% (25.7–27.7)	+6.1	0.0037	0.0079
Cough	111; 22.0% (18.6–25.8)	1,329; 17.9% (17.0–18.8)	+4.1	0.0232	0.0376
Bloody stool	21; 4.2% (2.7–6.3)	61; 0.8% (0.6–1.1)	+3.3	< 0.0001	< 0.0001
Sore throat	26; 5.2% (3.5–7.5)	150; 2.0% (1.7–2.4)	+3.1	< 0.0001	0.0002
Conjunctivitis	23; 4.6% (3.1–6.8)	158; 2.1% (1.8–2.5)	+2.4	0.0016	0.0039
General weakness	32; 6.3% (4.5–8.8)	300; 4.0% (3.6–4.5)	+2.3	0.0157	0.0274
Nosebleed or epistaxis	9; 1.8% (0.9–3.4)	35; 0.5% (0.3–0.7)	+1.3	0.0015	0.0039
Jaundice	31; 6.2% (4.4–8.6)	374; 5.0% (4.6–5.6)	+1.1	0.2945	0.4031
Sensitivity to light	8; 1.6% (0.8–3.1)	43; 0.6% (0.4–0.8)	+1.0	0.0143	0.0274
Confusion	36; 7.1% (5.2–9.7)	457; 6.2% (5.6–6.7)	+1.0	0.3901	0.4830
Skin rash	8; 1.6% (0.8–3.1)	51; 0.7% (0.5–0.9)	+0.9	0.0525	0.0802
Joint pain	85; 16.9% (13.8–20.4)	1,195; 16.1% (15.3–16.9)	+0.8	0.6614	0.7816
Hiccups	5; 1.0% (0.4–2.3)	19; 0.3% (0.2–0.4)	+0.7	0.0158	0.0274
Difficulty swallowing	39; 7.7% (5.7–10.4)	545; 7.3% (6.8–8.0)	+0.4	0.7245	0.7946
Chest pain	73; 14.5% (11.7–17.8)	1,068; 14.4% (13.6–15.2)	+0.1	0.9477	0.9856
Muscle pain	79; 15.7% (12.8–19.1)	1,170; 15.8% (14.9–16.6)	−0.1	1.0000	1.0000
Haematuria	1; 0.2% (0.0–1.1)	44; 0.6% (0.4–0.8)	−0.4	0.3654	0.4750
Difficulty breathing	101; 20.0% (16.8–23.8)	1,540; 20.7% (19.8–21.7)	−0.7	0.7335	0.7946
Coma	31; 6.2% (4.4–8.6)	583; 7.9% (7.3–8.5)	−1.7	0.1958	0.2828

All 16 comparisons with $p < 0.05$ also have $q < 0.05$. Y/YES harmonisation gives 32 private and 300 public general-weakness events ($p = 0.0157$; $q = 0.0274$). A coded negative or a record with no affirmative symptom does not demonstrate full form completion. BH, Benjamini–Hochberg.

Affirmative symptom counts (25 symptom fields)

Sample	Private, mean (SD)	Public, mean (SD)	Mann–Whitney p
All submissions	3.85 (3.11); n = 504	2.84 (3.11); n = 7,425	< 0.0001
At least one symptom	4.64 (2.82); n = 418	4.55 (2.79); n = 4,636	0.4064

At least one affirmative symptom was recorded in 418/504 private and 4,636/7,425 public records. Symptom counts exclude the additional composite bleeding field.

Table S6. Primary and sensitivity analyses

A. Any VHF positivity

Specification	N	aOR (95% CI)	p value
Primary GLMM; year adjusted	7,848	3.44 (1.95–6.05)	< 0.0001
District fixed effects; clustered SE	7,848	3.40 (1.41–8.25)	0.0066
Additional laboratory adjustment	7,848	3.52 (1.99–6.24)	< 0.0001
Additional reporting-status adjustment	7,848	2.40 (1.34–4.28)	0.0031
Alive at reporting only	1,972	1.47 (0.78–2.77)	0.2357
Exclude 2026	5,984	2.12 (0.86–5.23)	0.1024
Firth-penalised; year + Kampala; Wald inference	7,848	3.38 (2.06–5.57)	< 0.0001
Exclude blank district (additional)	7,847	3.49 (1.98–6.16)	< 0.0001
20 quadrature nodes (additional)	7,848	3.44 (1.95–6.05)	< 0.0001

Public is the ownership reference. Laboratory and status adjustment are additional to the primary model; status adjustment keeps UNKNOWN as a category. Firth is a penalised fixed-effect logistic model with year and Kampala. Fixed-district analyses use HC0 clustered SEs with G/(G − 1).

Post-hoc Ebola-specific comparison: 1 May to 30 June 2026

Ownership	Ebola positive / all	Positivity (95% Wilson CI)
Public	10 / 1,018	0.98% (0.53–1.80)
Private	10 / 212	4.72% (2.58–8.46)

Crude OR = 4.99; two-sided Fisher p = 0.0007. Private healthcare facilities contributed 212/1,230 submissions (17.2%) and 10/20 Ebola-positive submissions (50.0%); the detection share is 2.9 times the submission share. This is unadjusted and exploratory. It is not the overall VHF endpoint: all-VHF positives in the same period were 14/212 private and 15/1,018 public.

The intervals in alive-only and pre-2026 positivity analyses include 1. They do not establish absence of an association or full explanation by case mix.

B. Recorded bleeding

Specification	N	aOR (95% CI)	p value
Primary GLMM; year adjusted	7,848	4.97 (3.86–6.41)	< 0.0001
District fixed effects; clustered SE	7,848	4.99 (2.30–10.86)	< 0.0001
Additional laboratory adjustment	7,848	4.76 (3.69–6.14)	< 0.0001
Adjust for any affirmative symptom	7,848	3.85 (2.98–4.97)	< 0.0001
At least one affirmative symptom	5,015	3.33 (2.55–4.34)	< 0.0001
Exclude blank district (additional)	7,847	4.97 (3.86–6.40)	< 0.0001
20 quadrature nodes (additional)	7,848	4.97 (3.86–6.41)	< 0.0001

C. Alive at reporting

Specification	N	aOR (95% CI)	p value
Primary GLMM; year + laboratory adjusted	6,520	5.43 (4.09–7.21)	< 0.0001
District fixed effects; clustered SE	6,520	5.39 (3.78–7.67)	< 0.0001
All unknown statuses assigned dead	7,848	3.74 (3.01–4.66)	< 0.0001
All unknown statuses assigned alive	7,848	4.00 (3.03–5.27)	< 0.0001
Unknown private dead / public alive	7,848	0.53 (0.42–0.67)	< 0.0001
Unknown private alive / public dead	7,848	15.74 (12.42–19.95)	< 0.0001
Exclude blank district (additional)	6,519	5.43 (4.09–7.21)	< 0.0001
20 quadrature nodes (additional)	6,520	5.43 (4.09–7.21)	< 0.0001

The known-status primary alive model has 6,520 observations; deterministic assignments use all 7,848 records in the date/district model sample. The two common assignments remain above 1, while private-dead/public-alive reverses the association.

Bleeding adjustments concern affirmative symptom recording, not a validated form-completion or clinical-severity measure. Blank-district exclusion and 20-node checks are additional verification analyses.

D. Firth inference

Method	OR	95% CI	p value
Wald	3.3842	2.0576–5.5660	0.0000016
Profile penalised likelihood / LR test	3.3842	2.0081–5.4783	0.0000172

E. Fractional-outcome sensitivity for unknown reporting status

All unknown public statuses are assigned an expected alive outcome of 1. Each unknown private record is assigned expected alive outcome 1 − d, where d is the common expected death fraction shown below. The year- and laboratory-adjusted district GLMM is refitted at each value. This additional deterministic likelihood calculation is not multiple imputation and does not assign individual deaths.

Expected private death fraction (%)	Unknown public assigned alive (%)	Ownership aOR
0	100	3.9977
10	100	3.0866
20	100	2.4256
30	100	1.9365
40	100	1.5675
50	100	1.2842
60	100	1.0627
70	100	0.8867
80	100	0.7446
90	100	0.6282
100	100	0.5316

The curve crosses aOR = 1.5 at d = 42.16% and aOR = 1 at d = 63.31%. At d = 50%, aOR = 1.2842. Crossing 1.5 represents attenuation; crossing 1 represents reversal. Thresholds have no uncertainty intervals and depend on the allocation rule.

Table S7. Effect modification by Kampala

Outcome	Term / analysis	N	OR (95% CI)	p value
Any VHF positivity	Ownership × Kampala interaction	7,848	7.58 (1.60–35.82)	0.0106
Any VHF positivity	Kampala: separate ownership estimate	5,017	4.59 (2.27–9.29)	< 0.0001
Any VHF positivity	Remaining model sample: separate estimate	2,831	1.16 (0.31–4.32)	0.8208
Alive at reporting	Ownership × Kampala interaction	6,520	6.40 (2.90–14.14)	< 0.0001
Alive at reporting	Kampala: separate ownership estimate	4,203	6.27 (4.48–8.78)	< 0.0001
Alive at reporting	Remaining model sample: separate estimate	2,317	2.35 (1.28–4.28)	0.0055

Interaction models include ownership, year, Kampala and their interaction; the alive model additionally includes laboratory. CIs for interaction terms use district-clustered HC0 SEs with G/(G − 1). Separately fitted Kampala strata use model-based SEs; remaining strata use district-clustered SEs. The samples exclude UNKNOWN-district records and retain the one blank record in the non-Kampala indicator category.

Interaction ORs compare ownership odds ratios between geographic groups. They are not the ownership effect within Kampala and need not equal the ratio of separately fitted stratum estimates, because the interaction model shares other covariate effects. Kampala is a single district cluster; clustered interaction inference should therefore be interpreted cautiously. Wide intervals outside Kampala do not demonstrate absence of a positivity association.

Crude geographic tabulations used in Fig. 3b

Recorded district group	Public dead / known	Private dead / known	Fisher p
Kampala	3,494 / 3,982 (87.7%)	87 / 258 (33.7%)	< 0.0001
Other or unrecorded district	968 / 2,248 (43.1%)	35 / 101 (34.7%)	0.1005

The crude other/unrecorded group includes 23 UNKNOWN and one blank district. Fractions use known patient status only and do not represent follow-up mortality or case-fatality.

Table S8. Private ownership subgroups versus public

Outcome	Comparison	N	aOR (95% CI)	p value
Any VHF positivity	PNFP vs public	7,848	4.19 (2.03–8.62)	0.0001
Any VHF positivity	PFP vs public	7,848	2.82 (1.32–6.05)	0.0076
Recorded bleeding	PNFP vs public	7,848	5.87 (4.24–8.13)	< 0.0001
Recorded bleeding	PFP vs public	7,848	4.14 (2.92–5.87)	< 0.0001
Alive at reporting	PNFP vs public	6,520	5.65 (3.83–8.34)	< 0.0001
Alive at reporting	PFP vs public	6,520	5.22 (3.53–7.72)	< 0.0001

District random-intercept models adjust for year, with additional adjustment for laboratory status at reporting. PNFP and PFP estimates are directionally consistent, but subgroup similarity was not formally established. These estimates do not test PNFP directly against PFP.

Full-sample descriptive ownership totals

Ownership	Submissions	VHF positive	Bleeding	Alive	Known status
Public	7,425	128	859	1,768	6,230
PNFP	245	11	85	120	185
PFP	259	10	63	117	174

Descriptive totals include undated and unrecorded-district submissions. The descriptive and adjusted denominators consequently differ. PNFP, private not-for-profit; PFP, private for-profit.

Table S9. Districts with at least 20 submissions

Thirty-three named districts had at least 20 submissions; 17 had no private submissions. Rows are ordered by total submissions. This is not a table of counts of participating facilities.

District	All n	Private n	Private (%)	Positive n	Bleeding n
KAMPALA	5,059	376	7.4	42	277
MUKONO	253	25	9.9	0	29
MBARARA	245	2	0.8	52	68
JINJA	234	8	3.4	0	17
KABAROLE	208	0	0.0	0	12
MUBENDE	202	6	3.0	2	78
MASAKA	135	3	2.2	1	15
KASSANDA	122	3	2.5	0	33
WAKISO	107	15	14.0	7	38
MBALE	91	1	1.1	4	11
KABALE	72	2	2.8	5	25
KASESE	66	0	0.0	2	17
FORTPORTAL	61	5	8.2	2	9
KAZO	56	0	0.0	0	3
HOIMA	55	0	0.0	2	25
LUWEERO	53	14	26.4	0	23
BUKOMANSIMBI	49	0	0.0	0	6
KIKUUBE	47	0	0.0	0	21
KYEGEGWA	46	0	0.0	1	23
NAKASEKE	45	18	40.0	4	19
MITYANA	41	0	0.0	0	11
KAGADI	37	1	2.7	0	16
KIBUKU	34	0	0.0	0	4
BULIISA	33	0	0.0	0	6
KAKUMIRO	32	0	0.0	4	4
BUNDIBUGYO	31	0	0.0	0	5
BUTALEJA	30	0	0.0	0	5
KYANKWANZI	29	0	0.0	0	15
LYANTONDE	26	2	7.7	1	5
KYENJOJO	24	0	0.0	0	7
KIRUHURA	23	2	8.7	3	7
KYOTERA	22	0	0.0	0	6
KAYUNGA	22	0	0.0	0	12

The other 64 named districts contributed 315 submissions. UNKNOWN district (23 submissions) and one blank district are excluded from this named-district threshold table. The full source extract contains 97 named districts.

Table S10. All 44 calendar months

The 44-month span has dated records in 41 months. September, October, and November 2025 contain no dated source records; private shares are undefined, not zero. The absence of records cannot establish the absence of surveillance. August 2026 is partial (1–14 August).

Month	All n	Private n	Private (%)	Month	All n	Private n	Private (%)
2023-01	547	10	1.8	2024-11	43	13	30.2
2023-02	310	0	0.0	2024-12	34	1	2.9
2023-03	180	2	1.1	2025-01	129	3	2.3
2023-04	139	0	0.0	2025-02	56	10	17.9
2023-05	171	0	0.0	2025-03	976	46	4.7
2023-06	146	8	5.5	2025-04	703	32	4.6
2023-07	171	19	11.1	2025-05	377	23	6.1
2023-08	138	0	0.0	2025-06	344	10	2.9
2023-09	46	0	0.0	2025-07	584	5	0.9
2023-10	101	0	0.0	2025-08	177	1	0.6
2023-11	28	5	17.9	2025-09	0	0	Undefined
2023-12	37	1	2.7	2025-10	0	0	Undefined
2024-01	58	11	19.0	2025-11	0	0	Undefined
2024-02	49	1	2.0	2025-12	2	0	0.0
2024-03	87	6	6.9	2026-01	16	4	25.0
2024-04	15	1	6.7	2026-02	11	5	45.5
2024-05	52	6	11.5	2026-03	7	0	0.0
2024-06	105	1	1.0	2026-04	21	3	14.3
2024-07	98	8	8.2	2026-05	422	87	20.6
2024-08	17	1	5.9	2026-06	808	125	15.5
2024-09	34	3	8.8	2026-07	459	36	7.8
2024-10	30	0	0.0	2026-08	142	9	6.3

Monthly denominators sum to 7,870, comprising 7,374 public and 496 private submissions. The overall private share in Fig. 2a is based on all 7,929 records (504/7,929 = 6.4%), including 59 undated records. Open markers in Fig. 2a identify observed months with fewer than 30 submissions.

Table S11. Calendar-month outbreak groupings

Calendar group	Dates	All n	Private n	Private, % (95% CI)	Private / all Ebola positives
2025 baseline / declaration	2024-11-01 to 2025-01-31	206	17	8.3 (5.2–12.8)	0 / 1
2025 main outbreak	2025-02-01 to 2025-04-30	1,735	88	5.1 (4.1–6.2)	0 / 11
2025 post-outbreak	2025-05-01 to 2025-08-31	1,482	39	2.6 (1.9–3.6)	0 / 0
2026 baseline	2026-02-01 to 2026-04-30	39	8	20.5 (10.8–35.5)	0 / 0
2026 acute outbreak	2026-05-01 to 2026-06-30	1,230	212	17.2 (15.2–19.4)	10 / 20
2026 late outbreak	2026-07-01 to 2026-08-14	601	45	7.5 (5.6–9.9)	0 / 0

The 2025 SVD outbreak ran from declaration on 30 January to the end announcement on 26 April 2025. The 2026 BDBV declaration was on 15 May. The 28 July national announcement marked interruption of local transmission; WHO confirmed the end on 27 August after additional monitoring following discharge of the last imported patient on 16 July. The extract ends on 14 August.

The baseline/declaration and main-outbreak groups for 2025 contain 12 Ebola-positive submissions (one in January and 11 in February–April), none private. May–June 2026 contains 20 Ebola-positive submissions, 10 private.

Table S12. Aggregate dataset

De-identified counts by district, facility ownership and calendar year (277 district–ownership–year cells). PNFP, private not-for-profit; PFP, private for-profit.

District	Ownership	Year	n	Positive	Bleeding	Alive	Known status
ADJUMANI	Public	2023	1	0	1	1	1
ADJUMANI	Public	2025	2	0	2	1	1
AMURIA	Public	2025	3	0	0	2	3
AMURU	Public	2024	2	0	0	2	2
AMURU	Public	2025	1	0	1	1	1
AMURU	Public	2026	2	0	0	0	0
ARUA	PFP	2025	1	0	1	1	1
ARUA	Public	2023	4	0	3	3	4
ARUA	Public	2024	4	1	2	3	4
ARUA	Public	2025	4	0	3	3	4
ARUA	Public	2026	1	0	0	1	1
BUGIRI	Public	2023	1	0	1	1	1
BUGIRI	Public	2024	1	0	0	0	0
BUHWEJU	Public	2026	1	0	0	1	1
BUIKWE	PFP	2024	1	0	1	1	1
BUIKWE	Public	2023	1	0	0	0	1
BUIKWE	Public	2025	8	0	0	6	6
BUKOMANSIMBI	Public	2023	1	0	1	1	1
BUKOMANSIMBI	Public	2024	46	0	4	46	46
BUKOMANSIMBI	Public	2025	2	0	1	2	2
BUKWO	Public	2024	1	0	1	1	1
BULIISA	Public	2026	33	0	6	2	10
BUNDIBUGYO	Public	2023	22	0	2	20	21
BUNDIBUGYO	Public	2024	6	0	2	5	6
BUNDIBUGYO	Public	2025	1	0	1	1	1
BUNDIBUGYO	Public	2026	2	0	0	0	0
BUNYANGABU	Public	2023	8	0	8	2	8
BUNYANGABU	Public	2025	1	0	0	0	1
BUNYANGABU	Public	2026	2	0	0	0	0
BUSHENYI	Public	2023	12	0	1	12	12
BUTALEJA	Public	2024	29	0	5	3	3
BUTALEJA	Public	2026	1	0	0	0	1
BUTAMBALA	Public	2023	2	0	2	2	2
BUTAMBALA	Public	2026	4	0	2	1	2
BUVUMA	Public	2023	14	0	1	9	14
BUVUMA	Public	2025	3	0	0	3	3
BUVUMA	Public	2026	1	0	0	0	0
BUYENDE	Public	2026	1	0	0	0	0
FORTPORTAL	PFP	2024	5	0	0	0	0
FORTPORTAL	Public	2023	15	0	0	5	10
FORTPORTAL	Public	2024	8	1	7	8	8
FORTPORTAL	Public	2025	33	1	2	3	33
GOMBA	Public	2026	3	0	2	0	0
GULU	PNFP	2025	1	0	1	1	1
GULU	Public	2023	1	0	1	0	0
GULU	Public	2026	6	0	1	3	3
HOIMA	Public	2023	3	0	3	2	3
HOIMA	Public	2024	1	1	1	1	1
HOIMA	Public	2025	12	0	3	10	11
HOIMA	Public	2026	39	1	18	6	8
IBANDA	PNFP	2025	4	0	1	3	4
IBANDA	Public	2024	1	0	1	0	0
IBANDA	Public	2025	2	0	0	2	2
IBANDA	Public	2026	2	0	0	1	1

District	Ownership	Year	n	Positive	Bleeding	Alive	Known status
IGANGA	Public	2026	1	0	0	1	1
ISINGIRO	Public	2023	11	2	7	11	11
ISINGIRO	Public	2024	1	0	1	1	1
JINJA	PFP	2024	1	0	0	1	1
JINJA	PFP	2025	2	0	0	0	2
JINJA	PNFP	2024	5	0	5	5	5
JINJA	Public	2023	104	0	7	11	104
JINJA	Public	2024	12	0	2	12	12
JINJA	Public	2025	103	0	2	7	96
JINJA	Public	2026	6	0	1	3	5
KABALE	PNFP	2026	2	0	1	2	2
KABALE	Public	2023	16	4	9	16	16
KABALE	Public	2024	15	0	6	15	15
KABALE	Public	2025	8	1	3	7	8
KABALE	Public	2026	30	0	5	4	7
KABAROLE	Public	2023	58	0	0	58	58
KABAROLE	Public	2024	2	0	2	2	2
KABAROLE	Public	2025	106	0	5	4	103
KABAROLE	Public	2026	42	0	5	5	9
KAGADI	PNFP	2023	1	0	1	1	1
KAGADI	Public	2023	8	0	5	7	8
KAGADI	Public	2024	13	0	7	12	12
KAGADI	Public	2025	3	0	1	2	3
KAGADI	Public	2026	12	0	2	3	4
KAKUMIRO	Public	2023	21	4	2	12	14
KAKUMIRO	Public	2024	4	0	2	3	4
KAKUMIRO	Public	2026	7	0	0	1	1
KALAKI	Public	2025	1	0	1	1	1
KALAKI	Public	2026	1	0	0	1	1
KALANGALA	Public	2024	2	0	2	2	2
KALUNGU	Public	2025	2	0	2	1	2
KALUNGU	Public	2026	1	0	1	1	1
KAMPALA	PFP	2023	1	0	0	0	1
KAMPALA	PFP	2024	14	1	13	9	14
KAMPALA	PFP	2025	48	0	8	14	45
KAMPALA	PFP	2026	150	8	24	69	76
KAMPALA	PNFP	2023	31	2	9	20	31
KAMPALA	PNFP	2024	13	3	12	13	13
KAMPALA	PNFP	2025	37	0	14	9	31
KAMPALA	PNFP	2026	77	3	19	34	42
KAMPALA	Public	2023	1,108	3	24	15	1,101
KAMPALA	Public	2024	37	3	19	14	20
KAMPALA	Public	2025	2,472	10	90	224	2,391
KAMPALA	Public	2026	1,029	9	42	215	438
KAMWENGE	Public	2023	1	0	1	1	1
KAMWENGE	Public	2024	2	0	2	1	2
KAMWENGE	Public	2025	1	0	0	0	1
KAMWENGE	Public	2026	4	0	0	0	3
KANUNGU	Public	2023	2	0	0	1	1
KANUNGU	Public	2024	1	0	1	1	1
KANUNGU	Public	2025	1	0	1	1	1
KANUNGU	Public	2026	2	0	1	1	1
KASESE	Public	2023	11	0	4	4	11
KASESE	Public	2024	55	2	13	46	51
KASSANDA	PNFP	2026	3	0	3	0	0
KASSANDA	Public	2023	89	0	16	8	77
KASSANDA	Public	2024	26	0	11	26	26
KASSANDA	Public	2025	2	0	2	2	2

District	Ownership	Year	n	Positive	Bleeding	Alive	Known status
KASSANDA	Public	2026	2	0	1	0	1
KAWEMPE	Public	2023	1	0	1	1	1
KAYUNGA	Public	2023	5	0	5	2	4
KAYUNGA	Public	2024	1	0	1	1	1
KAYUNGA	Public	2025	2	0	2	0	2
KAYUNGA	Public	2026	14	0	4	6	6
KAZO	Public	2024	3	0	2	3	3
KAZO	Public	2026	53	0	1	8	8
KIBAALE	Public	2026	1	0	0	0	0
KIBOGA	PFP	2023	1	0	1	0	1
KIBOGA	Public	2024	10	2	10	10	10
KIBOGA	Public	2026	1	0	1	1	1
KIBUKU	Public	2024	27	0	0	24	24
KIBUKU	Public	2025	2	0	2	2	2
KIBUKU	Public	2026	5	0	2	3	3
KIKUUBE	Public	2023	4	0	4	3	4
KIKUUBE	Public	2024	3	0	3	3	3
KIKUUBE	Public	2025	2	0	2	0	0
KIKUUBE	Public	2026	38	0	12	6	10
KIRUHURA	PFP	2024	1	1	1	1	1
KIRUHURA	PNFP	2026	1	0	1	0	0
KIRUHURA	Public	2024	20	2	4	19	20
KIRUHURA	Public	2025	1	0	1	1	1
KIRYANDONGO	Public	2023	1	0	1	0	1
KIRYANDONGO	Public	2024	1	0	1	0	1
KIRYANDONGO	Public	2025	8	1	4	3	8
KIRYANDONGO	Public	2026	6	0	3	3	4
KISORO	PFP	2025	1	0	1	1	1
KISORO	PNFP	2026	4	0	0	0	1
KISORO	Public	2024	2	0	1	2	2
KISORO	Public	2026	6	0	3	4	6
KOBOKO	Public	2024	2	0	1	2	2
KOTIDO	Public	2025	1	0	0	0	1
KOTIDO	Public	2026	1	0	0	0	1
KYANKWANZI	Public	2023	6	0	0	6	6
KYANKWANZI	Public	2024	22	0	15	15	21
KYANKWANZI	Public	2026	1	0	0	1	1
KYEGEGWA	Public	2023	2	0	1	0	2
KYEGEGWA	Public	2024	12	1	8	8	11
KYEGEGWA	Public	2025	21	0	12	13	21
KYEGEGWA	Public	2026	11	0	2	0	1
KYENJOJO	Public	2024	20	0	4	20	20
KYENJOJO	Public	2025	4	0	3	4	4
KYOTERA	Public	2023	13	0	4	11	13
KYOTERA	Public	2025	6	0	0	1	6
KYOTERA	Public	2026	3	0	2	1	1
LAMWO	Public	2023	5	0	2	4	5
LIRA	PFP	2026	1	0	1	1	1
LIRA	Public	2023	10	1	2	10	10
LIRA	Public	2025	2	0	2	2	2
LIRA	Public	2026	1	0	1	1	1
LUWEERO	PFP	2023	1	0	1	1	1
LUWEERO	PFP	2025	7	0	1	1	7
LUWEERO	PNFP	2024	1	0	1	1	1
LUWEERO	PNFP	2025	1	0	0	1	1
LUWEERO	PNFP	2026	4	0	2	2	3
LUWEERO	Public	2023	4	0	3	3	4
LUWEERO	Public	2024	4	0	3	4	4

District	Ownership	Year	n	Positive	Bleeding	Alive	Known status
LUWEERO	Public	2025	16	0	7	5	16
LUWEERO	Public	2026	15	0	5	5	7
LWENGO	Public	2023	4	0	1	3	4
LYANTONDE	PFP	2024	2	0	2	2	2
LYANTONDE	Public	2024	15	1	0	15	15
LYANTONDE	Public	2025	1	0	0	0	1
LYANTONDE	Public	2026	8	0	3	4	6
MADIOKOLLO	Public	2025	2	0	2	2	2
MASAKA	PNFP	2026	2	1	1	0	0
MASAKA	Public	2023	78	0	3	35	73
MASAKA	Public	2024	5	0	4	4	5
MASAKA	Public	2025	41	0	1	2	37
MASAKA	Public	2026	7	0	4	5	5
MASINDI	Public	2024	1	0	1	0	1
MASINDI	Public	2026	1	0	1	1	1
MAYUGE	Public	2026	2	0	1	2	2
MBALE	PFP	2025	1	0	0	1	1
MBALE	Public	2023	1	0	1	1	1
MBALE	Public	2025	82	4	4	4	78
MBALE	Public	2026	7	0	6	6	7
MBARARA	PFP	2024	2	0	0	2	2
MBARARA	Public	2023	150	37	35	145	148
MBARARA	Public	2024	33	13	15	26	33
MBARARA	Public	2025	52	1	15	50	51
MBARARA	Public	2026	8	1	3	1	3
MITYANA	Public	2023	6	0	1	1	6
MITYANA	Public	2024	5	0	5	5	5
MITYANA	Public	2025	4	0	1	0	1
MITYANA	Public	2026	25	0	3	2	3
MOROTO	Public	2023	4	0	3	4	4
MOROTO	Public	2024	1	0	1	1	1
MOROTO	Public	2025	1	0	1	1	1
MOYO	Public	2023	7	0	6	4	7
MOYO	Public	2024	3	0	3	3	3
MPIGI	Public	2025	1	0	0	0	1
MUBENDE	PFP	2023	1	0	0	1	1
MUBENDE	PNFP	2024	5	0	2	5	5
MUBENDE	Public	2023	107	0	18	42	92
MUBENDE	Public	2024	68	2	49	49	68
MUBENDE	Public	2025	17	0	8	15	16
MUBENDE	Public	2026	4	0	1	4	4
MUKONO	PFP	2025	1	0	1	0	1
MUKONO	PFP	2026	1	0	1	0	1
MUKONO	PNFP	2025	22	0	4	5	22
MUKONO	PNFP	2026	1	0	0	0	0
MUKONO	Public	2023	8	0	3	7	8
MUKONO	Public	2024	1	0	1	1	1
MUKONO	Public	2025	122	0	6	3	114
MUKONO	Public	2026	97	0	13	17	42
NAKASEKE	PNFP	2023	7	0	1	6	7
NAKASEKE	PNFP	2024	1	0	1	0	1
NAKASEKE	PNFP	2026	8	2	3	2	2
NAKASEKE	Public	2023	11	1	0	11	11
NAKASEKE	Public	2024	8	1	8	8	8
NAKASEKE	Public	2025	2	0	2	2	2
NAKASEKE	Public	2026	4	0	2	3	3
NAKASONGOLA	Public	2024	2	0	2	1	2
NAKASONGOLA	Public	2026	5	0	4	1	2

District	Ownership	Year	n	Positive	Bleeding	Alive	Known status
NAMAYINGO	Public	2026	1	0	1	1	1
NAMISINDWA	Public	2023	2	0	2	2	2
NAMISINDWA	Public	2026	1	0	1	0	0
NAMUTUMBA	Public	2026	2	0	0	2	2
NEBBI	Public	2023	1	0	1	1	1
NEBBI	Public	2026	3	0	1	1	2
NTOROKO	Public	2025	2	0	0	0	0
NTUNGAMO	PFP	2025	1	0	1	1	1
NTUNGAMO	Public	2024	4	3	2	2	4
OBONGI	Public	2023	2	0	0	0	0
OMORO	Public	2023	1	0	0	0	0
OMORO	Public	2025	1	0	1	1	1
OYAM	PNFP	2026	1	0	0	1	1
PADER	PFP	2025	1	0	1	1	1
PAKWACH	Public	2024	1	0	1	1	1
PAKWACH	Public	2026	2	0	0	0	0
RAKAI	Public	2026	1	0	0	0	0
RUBANDA	Public	2025	2	0	0	2	2
RUKIGA	Public	2023	2	0	1	2	2
RUKIGA	Public	2024	9	0	1	9	9
RUKIGA	Public	2025	4	0	4	4	4
RUKIGA	Public	2026	1	0	0	1	1
RUKUNGIRI	PNFP	2026	1	0	0	0	0
RUKUNGIRI	Public	2024	1	0	1	0	1
RUKUNGIRI	Public	2026	2	0	0	0	0
SHEEMA	Public	2024	2	2	0	2	2
SIRONKO	Public	2026	1	0	1	1	1
SOROTI	PFP	2023	1	0	1	1	1
SOROTI	Public	2024	1	0	1	1	1
SOROTI	Public	2026	2	0	1	2	2
SSEMBABULE	Public	2024	1	1	0	1	1
TEREGO	Public	2025	1	0	1	1	1
TORORO	PNFP	2026	1	0	1	1	1
UNKNOWN	Public	2026	22	2	1	0	19
WAKISO	PFP	2023	1	0	0	1	1
WAKISO	PFP	2024	1	0	1	1	1
WAKISO	PFP	2025	1	0	0	0	1
WAKISO	PFP	2026	6	0	2	3	3
WAKISO	PNFP	2025	1	0	0	1	1
WAKISO	PNFP	2026	5	0	0	4	4
WAKISO	Public	2023	16	0	6	13	16
WAKISO	Public	2024	12	2	10	9	11
WAKISO	Public	2025	43	0	16	10	41
WAKISO	Public	2026	19	4	3	12	13
YUMBE	Public	2023	2	0	2	2	2
YUMBE	Public	2024	1	0	1	1	1
YUMBE	Public	2025	4	0	4	4	4
ZOMBO	PNFP	2026	1	0	0	0	1
ZOMBO	Public	2023	2	0	2	1	2
Total			**7,869**	**146**	**997**	**1,971**	**6,538**

STROBE reporting checklist

Item	Topic	Study-specific response	Location
1a-b	Design and abstract	The Abstract identifies the retrospective cross-sectional design, specimen-submission unit, RDS, setting and dates; it reports estimates with uncertainty and cautious conclusions. The current title does not name the design.	Abstract; title.
2	Rationale	The national VHF surveillance setting and reasons for examining private-facility contributions are described.	Background.
3	Objectives	Submission volume, yield, symptoms, reporting status and variation by geography and outbreak period are specified. Objectives are descriptive and associational; post-hoc comparisons are labelled as such.	Background; statistical methods in this file.
4	Design	Retrospective cross-sectional analysis of routinely collected specimen-submission records.	Methods.
5	Setting and dates	Uganda national RDS and three reference laboratories; 1 January 2023 to 14 August 2026. Calendar-month outbreak groupings are explicitly approximate.	Methods; Fig. 1; Table S11.
6a	Eligibility	All suspected-VHF testing submissions in the supplied study-period extract; no population or facility sampling frame was available. Analysis-specific exclusions are enumerated.	Methods; Results; Fig. S1.
7	Variables	Exposure, outcomes, year, laboratory, district and geographic indicator are defined.	Methods.
8	Measurement	Fields originate from RDS. Differences in symptom recording and unobserved referral/specimen pathways are acknowledged.	Methods; Limitations.
9	Bias	Measured case mix, clustering, sparse events and missing status are examined using adjusted, restricted and sensitivity analyses. Selection and residual confounding remain possible.	Methods; Limitations.
10	Study size	The available eligible submissions determine N; no formal sample-size calculation was used.	Methods.
11	Numeric variables	Calendar year is categorical, symptoms are binary, and affirmative symptom counts are summarised with sample SDs. Date boundaries are provided for temporal groups.	Methods; Tables S5 and S11.
12a-e	Statistical methods	Models, adjustment variables, interaction and subgroup methods, deterministic missing-status scenarios and additional checks are specified. No survey weights were applied: the extract is a referred-submission census, not a probability sample of patients or facilities.	Methods; Tables S3–S8.
13a-c	Record numbers and exclusions	7,929 source records; 59 without valid report date; 22 further UNKNOWN-district records; 7,848 primary positivity/bleeding records; 6,520 known-status model records. Fig. S1 is the record-selection diagram; Fig. 1 is the referral pathway.	Results; Fig. S1 in this file.
14a-b	Descriptive and missing data	Ownership, year, geographic group, status, symptoms and results are reported by sector. Missing report dates, districts and status are quantified.	Table S1; Results.
15	Outcome counts	Overall positive, bleeding and status counts, pathogen-specific totals and analysis-specific events are provided.	Table S1; Results; Tables S4–S6.
16a-c	Estimates and uncertainty	Crude proportions/ORs and adjusted ORs with 95% CIs are reported; confounders and calendar boundaries are stated. Percentages are submission-based.	Results; Tables S1–S8 and S11.
17	Additional analyses	Geographic interaction, subgroup, deterministic-bound, sparse-event and post-hoc analyses are distinguished and reported.	Results; Tables S6–S8.
18	Key findings	Findings are related to submission volume, case mix, geography and outbreak period.	Discussion.
19	Limitations	Repeat submissions, differential missing status, misclassification, symptom recording, unmeasured confounding and geographic concentration are discussed. Sensitivity bounds quantify some consequences; the direction of other biases is uncertain.	Limitations.
20	Interpretation	The interpretation avoids causal ownership, earlier-detection and survival claims; exploratory comparisons and intervals including 1 are interpreted cautiously.	Discussion/Conclusions.
21	Generalisability	The referred-submission population and Kampala concentration are distinguished from all patients, all febrile illnesses and all eligible facilities.	Generalizability.
22	Funding	No study-specific funding is stated; programme support and the stated lack of a funder role are disclosed. Authors should confirm these declarations.	Funding; Acknowledgements.

RECORD extension reporting checklist

The 13 RECORD extension items are mapped below using their official item numbers.

Item	Topic	Study-specific response	Location
1.1	Data source in abstract	Specimen submissions in the national Result Dispatch System are named in the Abstract.	Abstract.
1.2	Region and period	Uganda and 1 January 2023 to 14 August 2026 appear in the Abstract.	Abstract.
1.3	Linkage declaration	No person-level linkage is described. Ownership classification used a facility Master List from the Ministry of Health.	Methods.
6.1	Population selection	All supplied VHF-testing records were retained for full-sample descriptions; date/district/status rules define model samples.	Methods; Fig. S1.
6.2	Selection validation	No validation study or diagnostic accuracy of the selection/classification algorithm was supplied.	Methods.
6.3	Linkage flow	A person-level linkage flow is not applicable to the supplied extract. If formal facility-level linkage was used, its matching counts and quality should be added. Fig. S1 shows analysis selection, not database linkage.	Fig. S1; Methods; open author item.
7.1	Coding algorithms	Input fields and derived variables are defined in the Methods; response recoding and district-name harmonisation are summarised under item 12.2.	Methods.
12.1	Investigator access	The manuscript reports authorised access to de-identified surveillance data. The analysis used the supplied 7,929-row, 34-field extract; full operational RDS access was not required.	Availability of data; Authors' contributions.
12.2	Cleaning	Whitespace and case harmonisation, harmonisation of affirmative symptom responses (Y/YES), and reconciliation of duplicate district spellings (for example, FORT PORTAL to FORTPORTAL and KAKUMIIRO to KAKUMIRO). No rows were removed as duplicates because unique patient and specimen identifiers were unavailable.	Methods.
12.3	Linkage methods	No patient linkage was performed in this analysis. Confirm the facility Master List version/date, matching method, ambiguous matches and quality assessment used for original ownership classification.	Methods; open author item.
13.1	Selection after filtering	All analysis exclusions and the overlapping UNKNOWN/undated record are reconciled. The blank-district record is retained in the primary models and separately excluded in a check.	Results; Fig. S1; Table S6.
19.1	Routine-data limitations	The manuscript addresses selection, coding/measurement uncertainty, missing and absent variables, unmeasured confounding, repeated submissions and changing outbreak context. Zero-record months do not establish absence of surveillance.	Limitations.
22.1	Access to supplementary resources	This file supplies the statistical methods, supplementary analyses and the de-identified aggregate dataset (Table S12);	Availability of data.