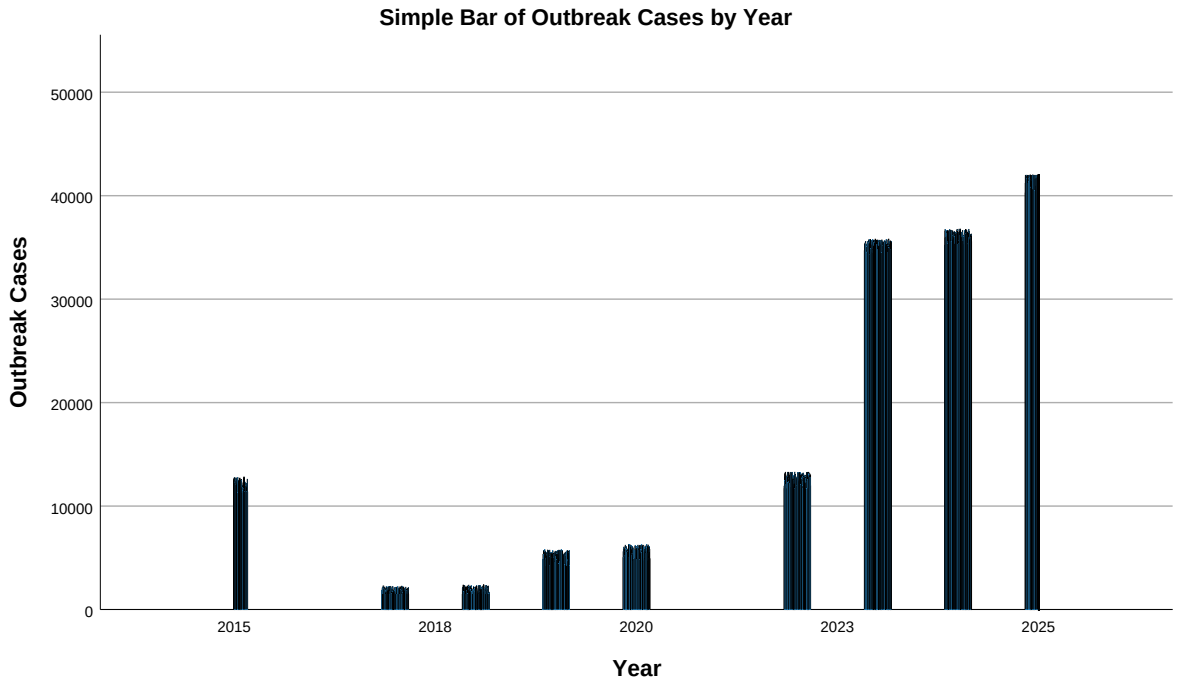
GGraph

Notes

Output Created		29-JAN-2025 09:43:17
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500
Syntax		GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Year OutbreakCases MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource (id("graphdataset")) DATA: Year=col(source (s), name("Year")) DATA: OutbreakCases=col(source (s), name ("OutbreakCases")) GUIDE: axis(dim(1), label ("Year")) GUIDE: axis(dim(2), label ("Outbreak Cases")) GUIDE: text.title(label ("Simple Bar of Outbreak Cases by Year")) ELEMENT: interval (position (Year*OutbreakCases), shape.interior(shape. square)) END GPL.
Resources	Processor Time	00:00:00.16
	Elapsed Time	00:00:00.23



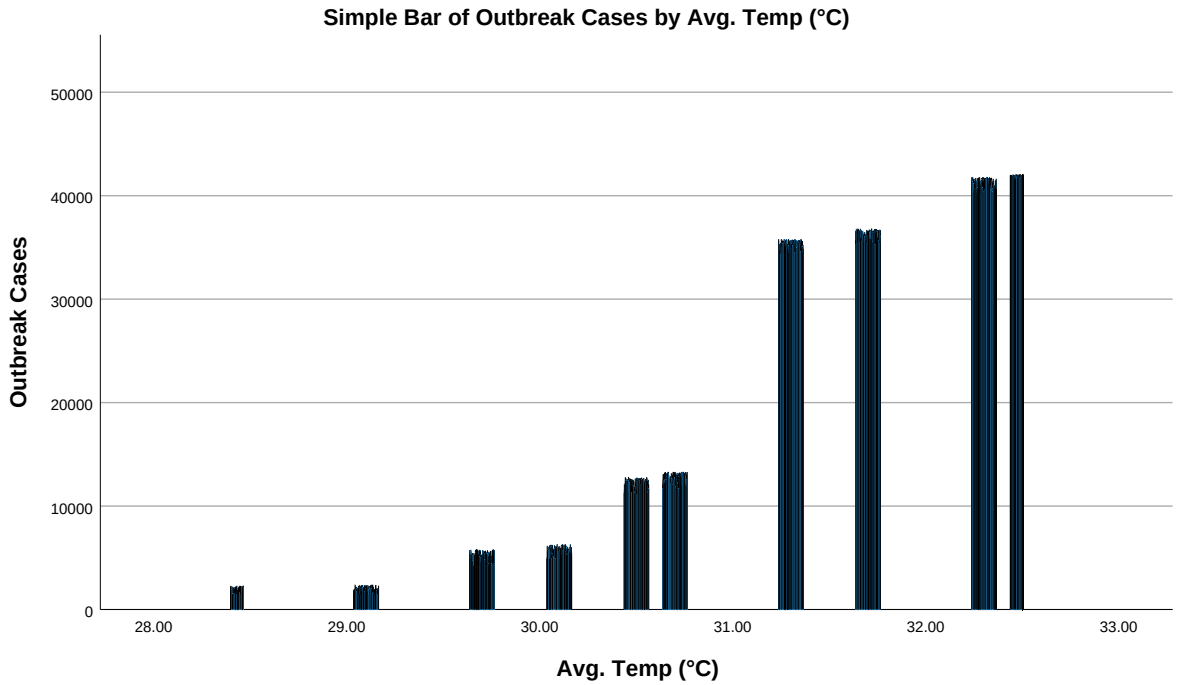
GGraph

Notes

Output Created		29-JAN-2025 09:43:39
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500

Notes

Syntax		GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Avg.Temp°C [name="Avg_Temp°C"] OutbreakCases MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource (id("graphdataset")) DATA: Avg_TempaC=col (source(s), name ("Avg_Temp°C")) DATA: OutbreakCases=col(source (s), name ("OutbreakCases")) GUIDE: axis(dim(1), label ("Avg. Temp (°C)")) GUIDE: axis(dim(2), label ("Outbreak Cases")) GUIDE: text.title(label ("Simple Bar of Outbreak Cases by Avg. Temp (° C)")) ELEMENT: interval (position (Avg_TempaC*OutbreakCa ses), shape.interior(shape. square)) END GPL.
Resources	Processor Time	00:00:00.16
	Elapsed Time	00:00:00.27



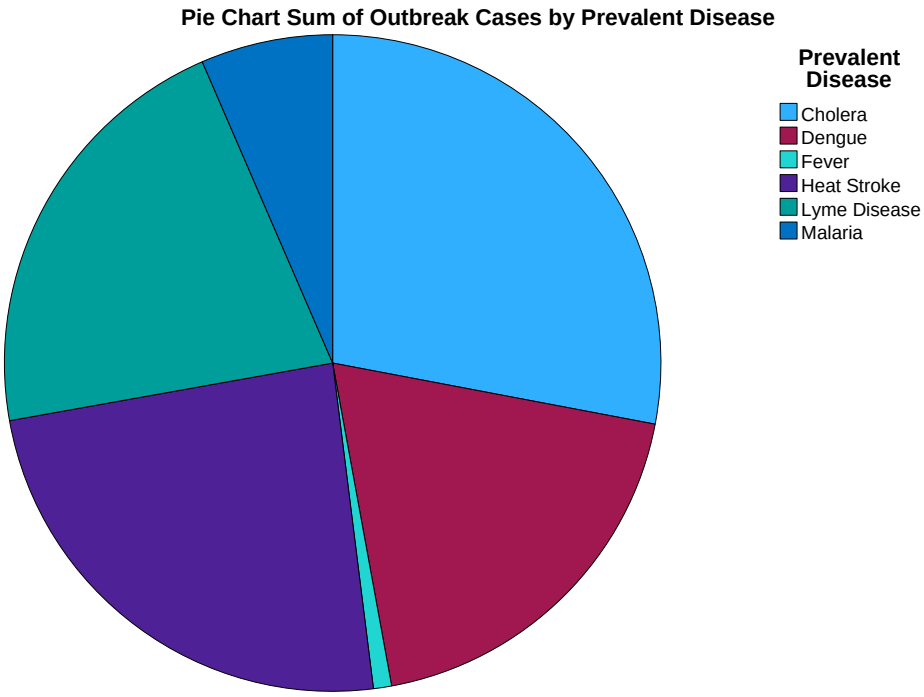
GGraph

Notes

Output Created		29-JAN-2025 09:45:18
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500

Notes

Syntax		GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=PrevalentDisease SUM(OutbreakCases) [name=" SUM_OutbreakCases"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource (id("graphdataset")) DATA: PrevalentDisease=col (source(s), name ("PrevalentDisease"), unit. category()) DATA: SUM_OutbreakCases=col (source(s), name ("SUM_OutbreakCases")) COORD: polar.theta (startAngle(0)) GUIDE: axis(dim(1), null()) GUIDE: legend(aesthetic (aesthetic.color.interior), label("Prevalent Disease")) GUIDE: text.title(label("Pie Chart Sum of Outbreak Cases by Prevalent Disease")) SCALE: linear(dim(1), dataMinimum(), dataMaximum()) ELEMENT: interval.stack (position(summary.percent (SUM_OutbreakCases))), color.interior (PrevalentDisease)) END GPL.
Resources	Processor Time	00:00:00.17
	Elapsed Time	00:00:00.28



GGraph

Notes

Output Created		29-JAN-2025 09:47:08
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500

Notes

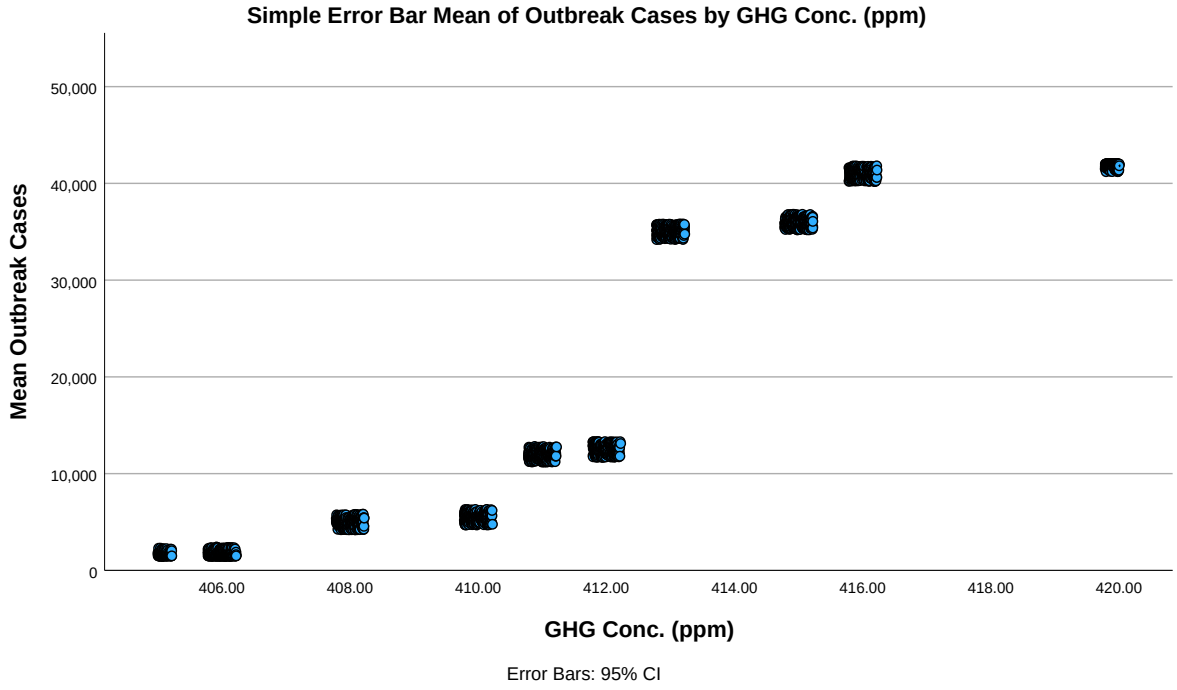
Syntax	GGRAPH
	  /GRAPHDATASET
	NAME="graphdataset"
	VARIABLES=GHGConc.
	ppm[name="
	GHGConc_ppm"] MEANCI
	(OutbreakCases,
	  95)[name="
	MEAN_OutbreakCases"
	LOW="
	MEAN_OutbreakCases_LO
	W" HIGH="
	MEAN_OutbreakCases_HI
	GH"]
	  MISSING=LISTWISE
	REPORTMISSING=NO
	  /GRAPHSPEC
	SOURCE=INLINE.
	BEGIN GPL
	  SOURCE: s=userSource
	(id("graphdataset"))
	  DATA:
	GHGConc_ppm=col(source
	(s), name
	("GHGConc_ppm"))
	  DATA:
	MEAN_OutbreakCases=col
	(source(s), name
	("MEAN_OutbreakCases"))
	  DATA: LOW=col(source
	(s), name
	("MEAN_OutbreakCases_L
	OW"))
	  DATA: HIGH=col(source
	(s), name
	("MEAN_OutbreakCases_
	HIGH"))
	  GUIDE: axis(dim(1), label
	("GHG Conc. (ppm)"))
	  GUIDE: axis(dim(2), label
	("Mean Outbreak Cases"))
	  GUIDE: text.title(label
	("Simple Error Bar Mean of
	Outbreak Cases by GHG
	Conc. (ppm)"))
	  GUIDE: text.footnote(label
	("Error Bars: 95% CI"))
	  ELEMENT: point(position
	(GHGConc_ppm*MEAN_O
	utbreakCases))
	  ELEMENT: interval
	(position(region.spread.
	range(GHGConc_ppm*
	(LOW+HIGH))),
	  shape.interior(shape.
	ibeam))
	END GPL.

Notes

Resources	Processor Time	00:00:00.22
	Elapsed Time	00:00:00.30

Warnings

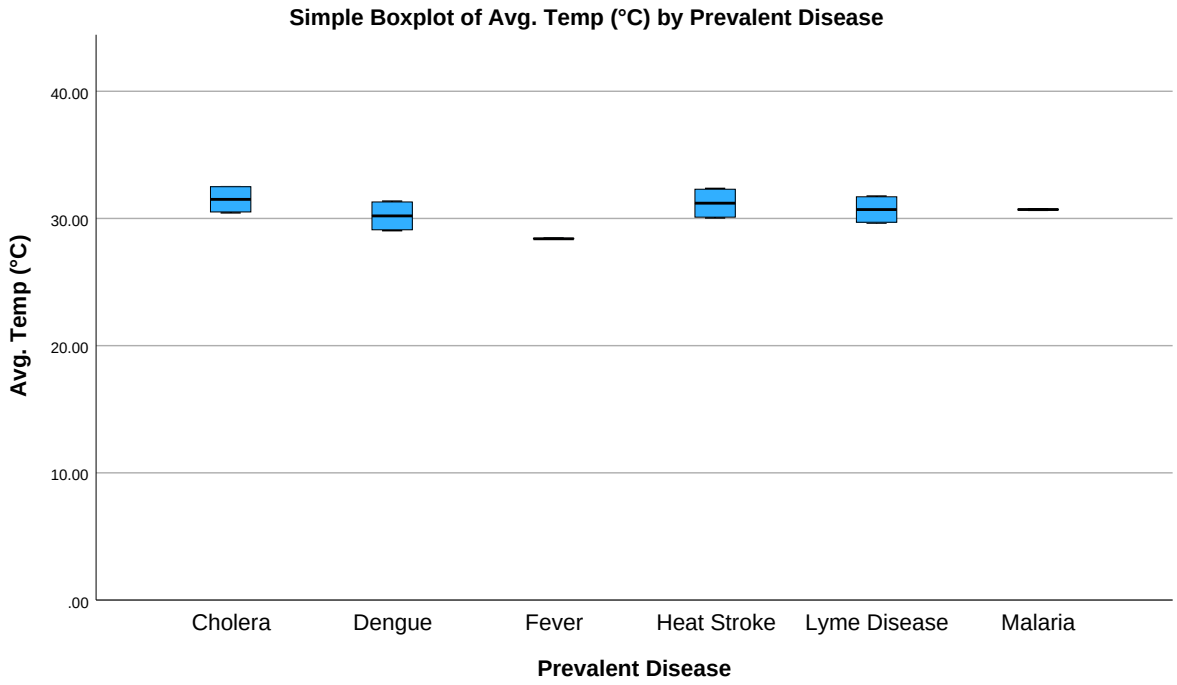
One or more error bar calculations yielded infinite results. These error bars have been removed from the chart.



GGraph

Notes

Output Created		29-JAN-2025 09:49:21
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500
Syntax		GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=PrevalentDisease Avg.Temp°C[name="Avg_Temp°C"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource(id("graphdataset")) DATA: PrevalentDisease=col(source(s), name("PrevalentDisease"), unit.category()) DATA: Avg_TempaC=col(source(s), name("Avg_Temp°C")) DATA: id=col(source(s), name("$CASENUM"), unit.category()) GUIDE: axis(dim(1), label("Prevalent Disease")) GUIDE: axis(dim(2), label("Avg. Temp (°C)")) GUIDE: text.title(label("Simple Boxplot of Avg. Temp (°C) by Prevalent Disease")) SCALE: linear(dim(2), include(0)) ELEMENT: schema(position(bin.quantile.letter(PrevalentDisease*Avg_TempaC)), label(id)) END GPL.
Resources	Processor Time	00:00:00.09
	Elapsed Time	00:00:00.27



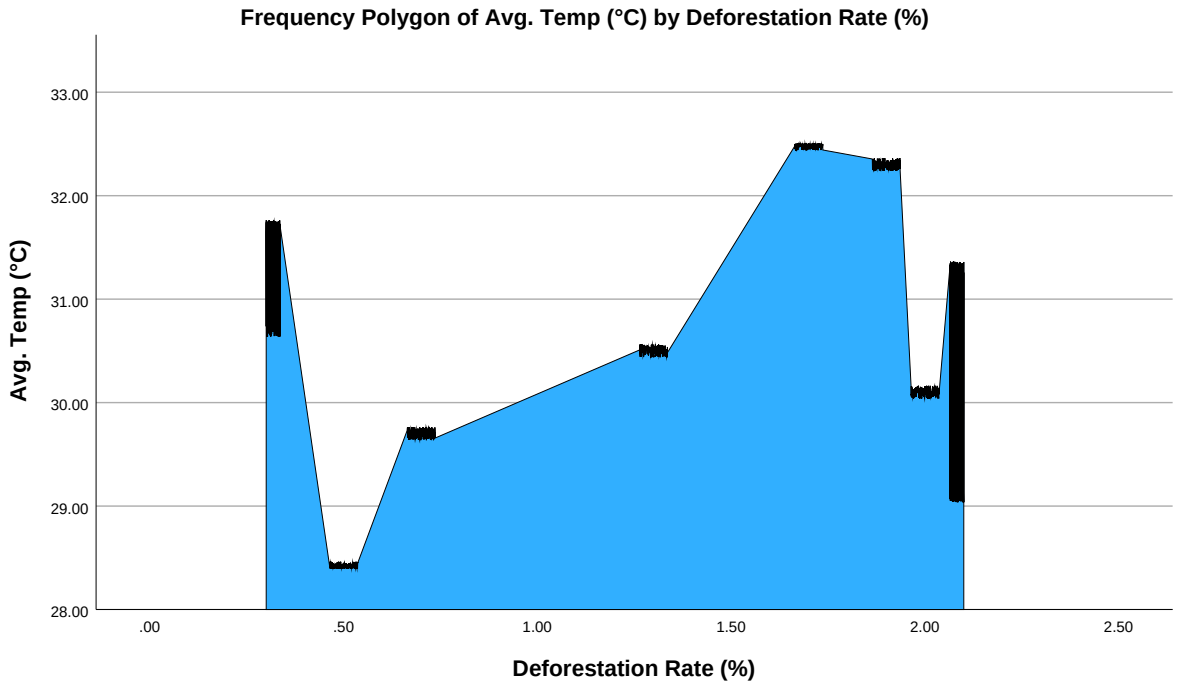
GGraph

Notes

Output Created		29-JAN-2025 09:51:57
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500

Notes

Syntax		GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=Deforestation Rate Avg.Temp°C[name=" Avg_Temp°C"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource (id("graphdataset")) DATA: DeforestationRate=col (source(s), name ("DeforestationRate")) DATA: Avg_TempaC=col (source(s), name ("Avg_Temp°C")) GUIDE: axis(dim(1), label ("Deforestation Rate (%)")) GUIDE: axis(dim(2), label ("Avg. Temp (°C)")) GUIDE: text.title(label ("Frequency Polygon of Avg. Temp (°C) by Deforestation Rate (%)")) ELEMENT: area(position (DeforestationRate*Avg_Te mpaC), missing.wings()) END GPL.
Resources	Processor Time	00:00:00.17
	Elapsed Time	00:00:00.27



Correlations

Notes

Output Created		29-JAN-2025 09:53:12
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=Avg.Temp° C Rainfallmm OutbreakCases MortalityRate GHGConc. ppm DeforestationRate /PRINT=TWOTAIL NOSIG FULL /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.05

Correlations

		Avg. Temp (°C)	Rainfall (mm)	Outbreak Cases
Avg. Temp (°C)	Pearson Correlation	1	-.990**	.937**
	Sig. (2-tailed)		<.001	<.001
	N	2500	2500	2500
Rainfall (mm)	Pearson Correlation	-.990**	1	-.969**
	Sig. (2-tailed)	<.001		<.001
	N	2500	2500	2500
Outbreak Cases	Pearson Correlation	.937**	-.969**	1
	Sig. (2-tailed)	<.001	<.001	
	N	2500	2500	2500
Mortality Rate (%)	Pearson Correlation	.337**	-.307**	.193**
	Sig. (2-tailed)	<.001	<.001	<.001
	N	2500	2500	2500
GHG Conc. (ppm)	Pearson Correlation	.978**	-.972**	.916**
	Sig. (2-tailed)	<.001	<.001	<.001
	N	2500	2500	2500
Deforestation Rate (%)	Pearson Correlation	.205**	-.180**	.204**
	Sig. (2-tailed)	<.001	<.001	<.001
	N	2500	2500	2500

Correlations

		Mortality Rate (%)	GHG Conc. (ppm)	Deforestation Rate (%)
Avg. Temp (°C)	Pearson Correlation	.337**	.978**	.205**
	Sig. (2-tailed)	<.001	<.001	<.001
	N	2500	2500	2500
Rainfall (mm)	Pearson Correlation	-.307**	-.972**	-.180**
	Sig. (2-tailed)	<.001	<.001	<.001
	N	2500	2500	2500
Outbreak Cases	Pearson Correlation	.193**	.916**	.204**
	Sig. (2-tailed)	<.001	<.001	<.001
	N	2500	2500	2500
Mortality Rate (%)	Pearson Correlation	1	.358**	.410**
	Sig. (2-tailed)		<.001	<.001
	N	2500	2500	2500
GHG Conc. (ppm)	Pearson Correlation	.358**	1	.163**
	Sig. (2-tailed)	<.001		<.001
	N	2500	2500	2500
Deforestation Rate (%)	Pearson Correlation	.410**	.163**	1
	Sig. (2-tailed)	<.001	<.001	
	N	2500	2500	2500

**. Correlation is significant at the 0.01 level (2-tailed).

Regression

Notes

Output Created		29-JAN-2025 09:54:05
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA /CRITERIA=PIN(.05) POUT(.10) TOLERANCE(.0001) /NOORIGIN /DEPENDENT OutbreakCases /METHOD=ENTER GHGConc.ppm DeforestationRate Avg. Temp°C.
Resources	Processor Time	00:00:00.13
	Elapsed Time	00:00:00.06
	Memory Required	3856 bytes
	Additional Memory Required for Residual Plots	0 bytes

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Avg. Temp (° C), Deforestation Rate (%), GHG Conc. (ppm)[b]	.	Enter

a. Dependent Variable: Outbreak Cases

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.937[a]	.878	.878	5648.755

a. Predictors: (Constant), Avg. Temp (°C), Deforestation Rate (%), GHG Conc. (ppm)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.748E+11	3	1.916E+11	6004.918	<.001[b]
	Residual	79643448346	2496	31908432.831		
	Total	6.545E+11	2499			

a. Dependent Variable: Outbreak Cases

b. Predictors: (Constant), Avg. Temp (°C), Deforestation Rate (%), GHG Conc. (ppm)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-335167.933	38944.597		-8.606	<.001
	GHG Conc. (ppm)	-31.244	126.235	-.008	-.248	.805
	Deforestation Rate (%)	258.075	162.459	.012	1.589	.112
	Avg. Temp (°C)	11978.695	438.714	.943	27.304	<.001

a. Dependent Variable: Outbreak Cases

Time Series Modeler

Notes

Output Created		29-JAN-2025 09:55:31
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500
	Date	<none>
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Only cases with valid data for the dependent variable are used in computing any statistics.
Syntax		TSMODEL /MODELSUMMARY PRINT=[MODELFIT] /MODELSTATISTICS DISPLAY=YES MODELFIT=[SRSQUARE] /SERIESPLOT OBSERVED FORECAST /OUTPUTFILTER DISPLAY=ALLMODELS /AUXILIARY CILEVEL=95 MAXACFLAGS=24 /MISSING USERMISSING=EXCLUDE /MODEL DEPENDENT=OutbreakCases MortalityRate EconomicLoss$M INDEPENDENT=Avg. Temp°C GHGConc.ppm OceanAcid.pH DeforestationRate PREFIX='Model' /EXPERTMODELER TYPE=[ARIMA EXSMOOTH]...
Resources	Processor Time	00:00:05.64
	Elapsed Time	00:00:13.83
Use	From	First observation
	To	Last observation
Predict	From	First observation
	To	Last observation

Model Description

			Model Type
Model ID	Outbreak Cases	Model_1	ARIMA(0,0,0)
	Mortality Rate (%)	Model_2	ARIMA(0,0,0)
	Economic Loss ($M)	Model_3	ARIMA(0,0,0)

Model Summary

Model Fit

Fit Statistic	Mean	SE	Minimum	Maximum	Percentile 5	Percentile 10
Stationary R-squared	.597	.298	.284	.878	.284	.284
R-squared	.566	.356	.178	.878	.178	.178
RMSE	1883.597	3259.502	.612	5647.345	.612	.612
MAPE	52.711	37.876	16.033	91.681	16.033	16.033
MaxAPE	272.478	296.748	77.117	613.952	77.117	77.117
MAE	1595.095	2760.542	.556	4782.694	.556	.556
MaxAE	3327.712	5755.994	1.122	9974.160	1.122	1.122
Normalized BIC	6.139	9.776	-.968	17.287	-.968	-.968

Model Fit

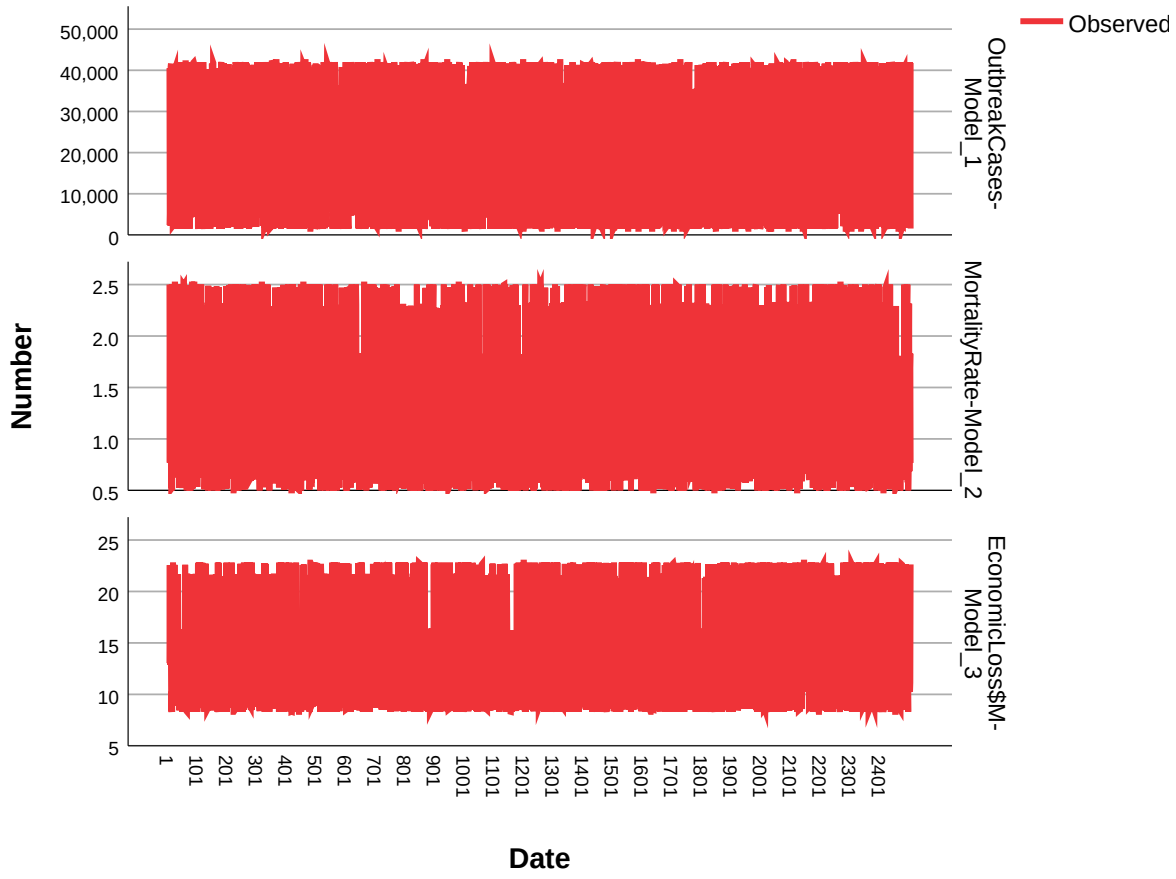
Fit Statistic	Percentile 25	Percentile 50	Percentile 75	Percentile 90	Percentile 95
Stationary R-squared	.284	.629	.878	.878	.878
R-squared	.178	.643	.878	.878	.878
RMSE	.612	2.833	5647.345	5647.345	5647.345
MAPE	16.033	50.419	91.681	91.681	91.681
MaxAPE	77.117	126.366	613.952	613.952	613.952
MAE	.556	2.034	4782.694	4782.694	4782.694
MaxAE	1.122	7.853	9974.160	9974.160	9974.160
Normalized BIC	-.968	2.098	17.287	17.287	17.287

Model Statistics

Model	Number of Predictors	Model Fit statistics: Stationary R-squared	Ljung-Box Q(18): Statistics	Ljung-Box Q(18): DF	Ljung-Box Q(18): Sig.
Outbreak Cases-Model_1	1	.878	13.017	18	.791
Mortality Rate (%)-Model_2	3	.284	23.748	18	.163
Economic Loss ($M)-Model_3	4	.629	10.018	18	.931

Model Statistics

Model	Number of Outliers
Outbreak Cases-Model_1	<.001
Mortality Rate (%)-Model_2	<.001
Economic Loss ($M)-Model_3	<.001



Descriptives

Notes

Output Created		29-JAN-2025 09:56:25
Comments		
Input	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	2500
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	All non-missing data are used.
Syntax		DESCRIPTIVES VARIABLES=Year Avg. Temp°C Rainfallmm OutbreakCases EconomicLoss$M Gov. Response MortalityRate GHGConc. ppm OceanAcid.pH UrbanizationLevel PopulationM DeforestationRate /STATISTICS=MEAN STDDEV MIN MAX.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.02

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Year	2500	2015	2025	2020.79	3.328
Avg. Temp (°C)	2500	28.40	32.50	30.6309	1.27402
Rainfall (mm)	2500	400.00	1400.00	900.1894	344.18064
Outbreak Cases	2500	1500	42000	19223.11	16183.052
Economic Loss ($M)	2500	8	23	14.03	4.735
Gov. Response	2500	0	1	.70	.453
Mortality Rate (%)	2500	1	3	1.34	.675
GHG Conc. (ppm)	2500	405.00	420.00	411.5919	4.39214
Ocean Acid. (pH)	2500	8.00	8.20	8.0603	.06576
Urbanization Level (%)	2500	42.00	82.00	66.1032	14.73994
Population(M)	2500	35	124	78.18	26.527
Deforestation Rate (%)	2500	.30	2.10	1.2896	.72335
Valid N (listwise)	2500				