

An overview and categorization of papers published in statistical series of medical journals

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Overview

TG2 review of papers on regression modelling

Categorization of statistical topics

Categorization of 906 papers from 32 journals

TG2: Review of Papers on Regression Modelling

TG2 – Selection of variables and functional forms in multivariable analysis

REGISTERED REPORT PROTOCOL

Systematic review of education and practical guidance on regression modeling for medical researchers who lack a strong statistical background: Study protocol

Paul Bach^{1,2,3}, Christine Wallisch^{1,2,4}, Nadja Klein³, Lorena Hafermann^{1,2}, Willi Sauerbrei⁵, Ewout W. Steyerberg⁶, Georg Heinze⁴, Geraldine Rauch^{1,2*}, for topic group 2 of the STRATOS initiative[†]

Bach *et al.* (2020) | PLOS One

RESEARCH ARTICLE

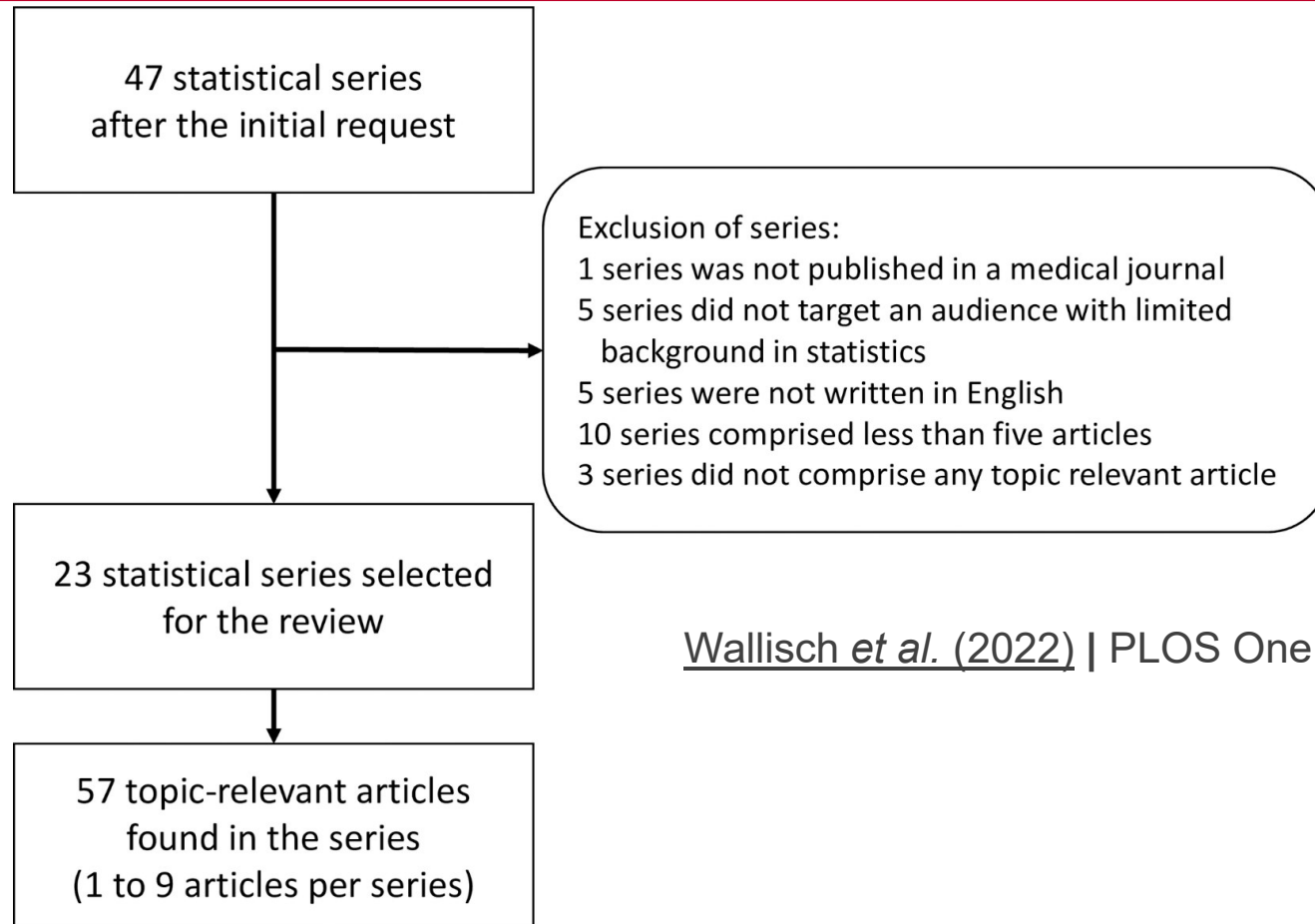
Review of guidance papers on regression modeling in statistical series of medical journals

Christine Wallisch^{1,2*}, Paul Bach^{1,3}, Lorena Hafermann¹, Nadja Klein³, Willi Sauerbrei⁴, Ewout W. Steyerberg⁵, Georg Heinze², Geraldine Rauch^{1*}, on behalf of topic group 2 of the STRATOS initiative[†]

Wallisch *et al.* (2022) | PLOS One

search up to June 2019

Selection of statistical series and topic relevant articles



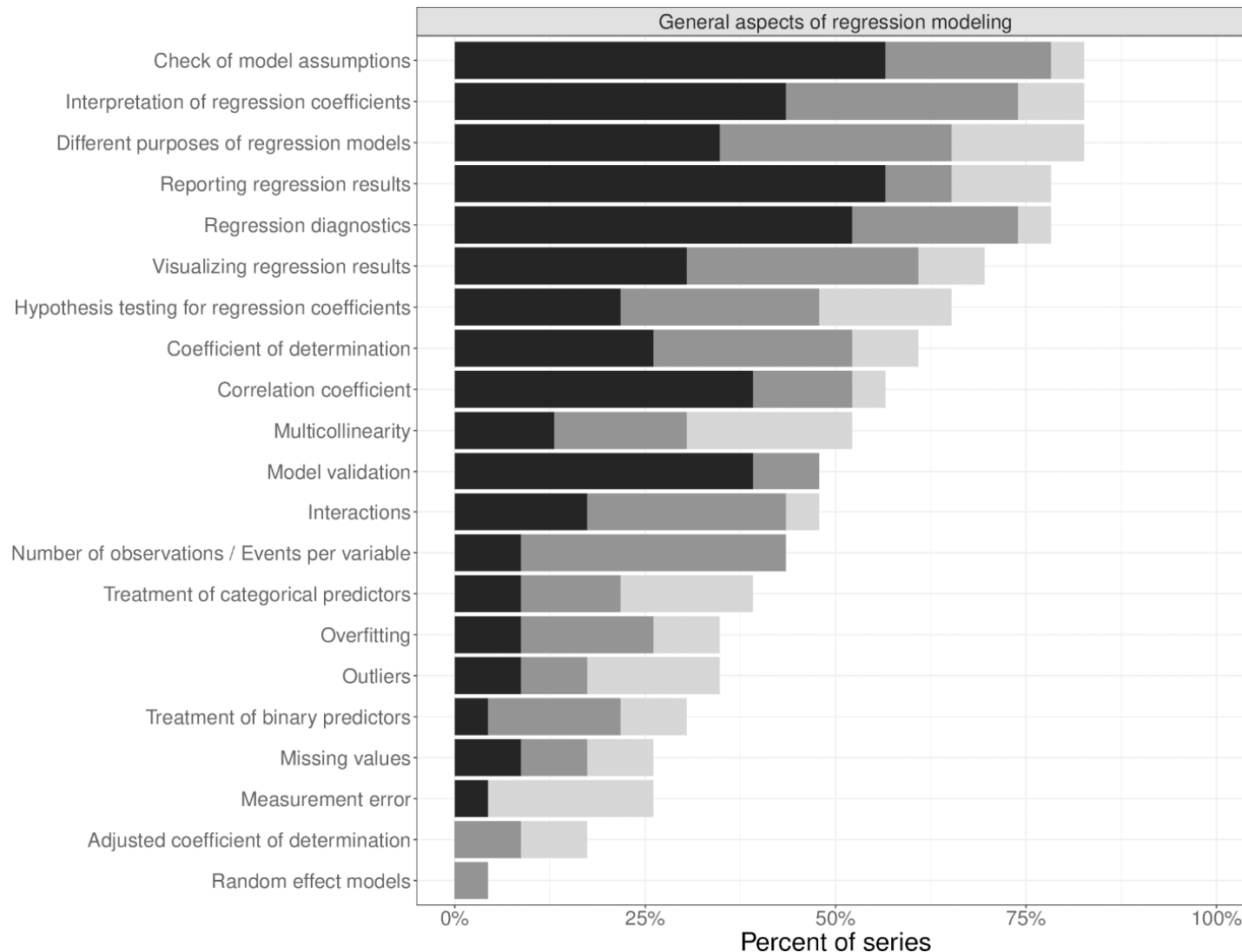
Characteristics of Included Statistical Series Ranked by Number of Covered Aspects

Rank	Journal	Statistical series	Years of publications	No. of articles	No. of topic-relevant articles	Average no. of pages in topic-relevant articles (range)	No. of aspects covered	Covered regression types	Covered multi-variable models	References
1	Revista Española de Cardiología	Contemporary methods in biostatistics	2011	6	2	7.0 (7)	35	Linear, logistic and Cox	Yes	[22, 23]
2	Circulation	Statistical primer for cardiovascular research	2006–2009	23	3	6.0 (6)	31	Linear, logistic and Cox	Yes	[24–26]
3	Archives of Disease in Childhood	Statistics from the inside	1991–1995	16	3	4.7 (4–5)	30	Linear, and logistic	Yes	[27–29]
4	Deutsches Ärzteblatt International	Series of evaluation of scientific publications	2009–2017	24	1	7.0 (7)	27	Linear, logistic, Cox, and Poisson	Yes	[20]
4	European Journal of Cardio-Thoracic Surgery	Statistical primer	2018	5	1	6.0 (6)	27	Linear, logistic and Cox	Yes	[21]
6	American Journal of Roentgenology	Fundamentals of clinical research for radiologists	2000–2005	22	3	10.3 (4–16)	25	Linear, logistic and Cox	Yes	[15, 16, 30]
6	European Heart Journal	Statistical tutorials	2011–2014	5	1	8.0 (8)	25	Logistic and Cox	Yes	[31]

Average number of article pages ranges from 1 to 16.3



Figure: Publication years and number of articles in statistical series from highest to lowest.



Extent of explanation: One sentence only (light grey), more than one sentence to one paragraph (grey) and more than one paragraph (black).

Categorization of statistical papers

- 34 series from 32 journals
- 1147 articles up to Feb 2024
- 906 categorized by 2 reviewers
- List up to three categories, additional remarks

Categorization of Statistical Topics

1. Adjustment for variables/covariate adjustment
2. Bayesian analysis
3. Bias/systematic errors
4. Causal inference/explanation
5. Clinical trials/randomized controlled trials (RCT)
 - 5.1. Design
 - 5.2. Subgroups/interaction/treatment heterogeneity/effect modification
 - 5.3. Other topics
6. Confounding
7. Continuous variables
8. Cost-effectiveness analysis/economic evaluation
9. Diagnostic studies/diagnostic test evaluation
10. High-dimensional data
11. Machine learning/artificial intelligence
12. Measurement error
13. Meta-analysis/quantitative evidence synthesis/data pooling
14. Missing data/incomplete data
15. Multiple testing/multiplicity/multiple comparisons
16. Non-parametric methods
17. OTHERS¹
18. Prediction models/prognostic models/risk scores.
19. Regression models/regression analysis
 - 19.1. Linear regression
 - 19.2. Logistic regression
 - 19.3. Cox regression
 - 19.4. Others
20. Repeated measurements/longitudinal data
21. Resampling/bootstrap
22. Research aim
 - 22.1. Prediction
 - 22.2. Description
 - 22.3. Explanation/causal inference
 - 22.4. Others
23. Reviews
 - 23.1. Systematic/evidence synthesis
 - 23.2. Scoping
 - 23.3. Others
24. Risk/risk communication
25. Sample size
26. Screening
27. Simulation/simulated data
28. Statistical inference
29. Statistical modelling
 - 29.1. Model building
 - 29.2. Sensitivity analyses/check of model assumptions
 - 29.3. Other topics
30. Statistical tests/hypothesis testing
31. Study design for observation studies
 - 31.1. Case-control
 - 31.2. Cohort
 - 31.3. Others
32. Survival analysis/time-to-event analysis
33. Tree-based approaches
34. Types of outcome/outcome measure
 - 34.1. Continuous
 - 34.2. Binary
 - 34.3. Time to event/survival
 - 34.4. Others
35. Validation
36. Visualization

Excel File is the Main Output

ID	Title (with hyperlinks)	Study type	A	Pag	Ref	Table	Categories	Notes	DOI (short version)
01.10	AdvPhysEdu16-Currant-Everett	Non-specific	Y	5	34	1-5	c30, c17	(reproducibility)	10.1152/advan.00042.2016
01.11	AdvPhysEdu17-Currant-Everett	Non-specific	Y	5	22	2-9	c7, c29.2, c17	(normality)	10.1152/advan.00064.2017
01.12	AdvPhysEdu18-Currant-Everett	Non-specific	Y	4	33	1-8	c7, c29.2		10.1152/advan.00018.2018
01.13	AdvPhysEdu15-Currant-Everett	Non-specific	Y	6	26	4-3	c17	(analysis of change)	10.1152/advan.00018.2015
03.002	AJODO17b-Al-Jewair	Non-specific	N	3	14	0-8	c6, c4	DAG	10.1016/j.ajodo.2016.11.008
03.003	AJODO24-Becker	1.4	N	3	7	1-1	c11	Boosting	10.1016/j.ajodo.2023.10.003
03.004	AJODO23a-Burzykowski	Non-specific	N	3.5	4	1-0	c19.4	Generalized linear models	10.1016/j.ajodo.2023.07.005
03.005	AJODO23b-Burzykowski	1.4	N	3.5	4	2-0	c35, c11	Validation of machine learning	10.1016/j.ajodo.2023.05.007
03.006	AJODO22-Christogiannis	Non-specific	N	3	13	0-1	c25	Post-hoc power	10.1016/j.ajodo.2021.10.008

Example 1: Searching for Only One Category

Sample Size – Category 25 (c25)

Category
Include subcategories?

c22.1 (7)

c22.2 (13)

c22.3 (4)

c22.4 (2)

c23 (8)

c23.1 (12)

c23.3 (2)

c24 (36)

c24.1 (1)

c25 (51)

c26 (3)

c27 (6)

c28 (67)

c25 = 51 papers

Choose from the yellow boxes. The list appears at the bottom. Click a blue title to open the paper, or 'Go to row' to jump to it in the main sheet.

Category **c25 (51)** and also this category (optional) **(any)**

Include subcategories? **No** Yes: c5 also finds c5.1 to c5.3, and study type 1.2 also finds 1.2.1

More filters (optional)

Pages from to

References from to

Figures from to

Abstract (Y/N) **(any)** Y = has an abstract, N = no abstract

Study type **(any)** the code at the start of the 'Study type' cell

Journal **(any)** the abbreviation at the start of the Title

Keyword (title or notes) e.g. Bland, trial, missing

Clear all boxes

Save results as PDF

Update lists and index

51 papers found | c25
These papers also carry: c5.1 (14), c28 (8), c30 (8), c7 (3), c15 (3), c27 (3), c3 (2), c5.2 (2)

Open in main sheet	ID	Title (with hyperlinks)	Study type	Abs	Pages	Refs	Tables-Figs	Categories	Notes
Go to row 2	01.01	AdvPhysEdu08-Currant-Everett	Non-specific	Y	5	34	1-7	c7, c28, c25	
Go to row 3	01.02	AdvPhysEdu09a-Currant-Everett	Non-specific	Y	4	26	1-3	c28, c25	
Go to row 32	03.006	AJODO22-Christoganniss	Non-specific	N	3	13	0-1	c25	Post-hoc power
Go to row 37	03.011	AJODO15-Guo	Non-specific	N	3.5	7	1-1	c25, c15, c20	Sample size repeated measurements
Go to row 61	03.035	AJODO12g-Pandis	Non-specific	N	1.5	4	1-0	c25	Sample size paired
Go to row 62	03.036	AJODO12h-Pandis	Non-specific	N	2	2	1-0	c25	Sample size proportions
Go to row 63	03.037	AJODO12i-Pandis	Non-specific	N	2.5	3	3-0	c25	Sample size 2 means
Go to row 107	03.081	AJODO12c-Pandis	Non-specific	N	2.5	4	1-0	c25	Sample size for comparing rates
Go to row 175	05.27	AIM15-Uino	1.1 (Non-inferiority trials)	Y	6	27	3-3	c25	5.3 (non-inferiority trials), 24, 25, 29.2, 30, 32, 34 (34.3)
Go to row 238	08.01	ArchDisChil91a-Healy	Non-specific	N	2	0	0-0	c17, c28, c25	(population, samples)
Go to row 241	08.04	ArchDisChil92b-Healy	Non-specific	N	2	0	0-0	c7, c25, c28	
Go to row 245	08.08	ArchDisChil92i-Healy	Non-specific	N	3	0	0-1	c30, c25	
Go to row 258	09.04	BMJLRM09-Bland	Non-specific	Y	1	14	1-0	c25	
Go to row 300	09.46	BMJLRM12-Norman	Non-specific	Y	3	9	1-0	c25	
Go to row 313	09.59	BMJLRM20-Riley	1.4	Y	6	78	0-5	c25	
Go to row 317	09.63	BMJLRM24b-Riley	1.4	Y	12	79	0-5	c25, c18, c35	
Go to row 402	10.01	BMJLRM89a-Kerry	Non-specific	N	1	0	1-0	c25, c5.1, c29.3	
Go to row 419	11.10	BJO14-Cumberland	Non-specific	N	2	8	1-2	c7, c3, c25	
Go to row 460	13.21	Circulation06-Sullivan	Non-specific	N	5	7	2-1	c28, c25	estimation
Go to row 463	14.01	CCR12-An	1.1	Y	8	13	3-3	c5.1, c25, c30	
Go to row 466	14.04	CCR08-Freidin	1.1	Y	3.5	25	1-0	c5.1, c15, c25	
Go to row 469	14.07	CCR15-Hieke	1.1	Y	10	12	1-7	c5.1, c5.2, c25, c32	
Go to row 470	14.08	CCR08-Hoering	1.1	Y	4	20	0-0	c5.1, c25	Phase II, Perhaps 34.3
Go to row 472	14.10	CCR16-Lasonos	1.1	Y	8	35	2-4	c5.1, c5.2, c25	Phase I design
Go to row 474	14.12	CCR13-Kaiser	1.1	Y	7	6	3-1	c5.1, c25, c27	
Go to row 475	14.13	CCR09-Leblanc	1.1	Y	8.5	37	4-1	c5.1, c25	
Go to row 476	14.14	CCR12-Lee	1.1	Y	10	20	2-4	c5.1, c25, c27	
Go to row 483	14.21	CCR11-Roberts	1.1	Y	7	15	1-3	c5.1, c25, c30	
Go to row 500	15.12	CC02d-Whitley	Non-specific	Y	6.5	9	2-6	c25, c30	
Go to row 512	16.09	DtschArzteblnt10-Rohrig	Non-specific	Y	4	17	2-1	c25	
Go to row 585	19.30	JAMA17-Irony	Non-specific	N	2	6	0-0	c5.3, c5.1, c25	Composite endpoints
Go to row 621	19.66	JAMA14-Stokes	Non-specific	N	2	4	1-0	c25, c30	
Go to row 633	19.78	JAMA17-Yadav	1.1	N	2	6	0-1	c15, c5, c25, c30	Multiple endpoints in clinical trials
Go to row 644	21.05	JCP14e-Streiner	1.1	N	3	12	0-2	c5.1, c25	Added 25
Go to row 647	21.08	JCP15c-Streiner	1.1	N	2.5	14	0-2	c5.1, c25	
Go to row 657	21.18	JCP17a-Streiner	Non-specific	N	2	8	1-0	c28, c25	
Go to row 660	21.21	JCP17a-Streiner	Non-specific	N	2	10	1-0	c28, c25, c30	
Go to row 701	22.17	JThoracDis17-Guerrera	1.1	Y	4	24	0-0	c5.1, c25	Added 25
Go to row 703	22.19	JThoracDis17-Hazra	Non-specific	Y	6	10	3-1	c28, c25	
Go to row 711	22.27	JThoracDis15-Sihoe	Non-specific	N	0	5	0-0	c25	
Go to row 712	22.28	JThoracDis16a-Thiese	Non-specific	Y	4	16	0-1	c30, c25	
Go to row 721	23.05	K07b-Jager	Non-specific	Y	4	7	2-1	c25	
Go to row 729	23.13	K07-Tnepepi	Non-specific	Y	3	5	2-1	c25	
Go to row 775	25.01	NDT07c-Ravani	Non-specific	N	10	22	5-5	c3, c6, c12, c17, c22, c25	Many topics: objectives, errors, confounding, inference, hypothesis testing, sample size, type of variables, measurement error, effect measures, validity
Go to row 788	26.09	NDT10-Nordzij	Non-specific	Y	6	18	4-1	c25	
Go to row 804	27.06	NCP11-Noordzij	Non-specific	Y	5	9	2-1	c25	
Go to row 827	29.01	PsychosomMed04-Babjak	Non-specific	Y	10	28	1-3	c19, c25, c27	Overfitting
Go to row 842	30.04	Radiology03-Eng	Non-specific	Y	4	19	2-0	c25	
Go to row 843	30.05	Radiology04-Eng	Non-specific	Y	5	21	1-4	c25	
Go to row 869	32.07	AnnThorSur07a-Grunckemeier	Non-specific	N	5	11	0-6	c25	
Go to row 894	33.07	EJCTS18-Hickey	Non-specific	Y	5	24	3-0	c25	

Example 2: Searching for Two Categories at a Time

Using “c19.1 + c19.2”

Linear Regression – category 19.1 (c19.1)

Choose from the yellow boxes. The list appears at the bottom. Click a blue title to open the paper, or 'Go to row' to jump to it in the main sheet.

Category: **c19.1 (31)** and also this category (optional): **(any)**

Include subcategories? **No** Yes: c5 also finds c5.1 to c5.3, and study type 1.2 also finds 1.2.1

More filters (optional)

Pages from: to

References from: to

Tables from: to

Figures from: to

Abstract (Y/N): **(any)** Y = has an abstract, N = no abstract

Study type: **(any)** the code at the start of the Study type cell

Journal: **(any)** the abbreviation at the start of the Title

Keyword (title or notes): e.g. Bland, trial, missing

31 papers found | c19.1

These papers also carry: c19.2 (4), c5.3 (2), c17 (2), c20 (2), c1 (1), c7 (1), c30 (1)

Open in main sheet	ID	Title (with hyperlinks)	Study type	Abs	Pages	Refs	Tables-Figs	Categories	Notes
Go to row 6	01.05	AdvPhysEdu10a-Currant-Everett	Non-specific	Y	6	45	1-10	c17, c19.1	19.1 (correlation = linear regression)
Go to row 8	01.07	AdvPhysEdu11-Currant-Everett	Non-specific	Y	6	33	1-9	c19.1	
Go to row 17	02.03	AJO10-Bossardin	Non-specific	N	2	1	2-0	c19.1	
Go to row 95	03.069	AJODO18d-Pandis	Non-specific	N	1.5	1	2-0	c19.1	Ancova part 2
Go to row 96	03.070	AJODO18e-Pandis	Non-specific	N	2	1	4-1	c19.1	Ancova part 1
Go to row 97	03.071	AJODO18f-Pandis	Non-specific	N	1.5	1	4-0	c19.1	ANOVA
Go to row 98	03.072	AJODO18g-Pandis	Non-specific	N	1	0	2-0	c19.1	ANOVA/t-test
Go to row 99	03.073	AJODO18h-Pandis	Non-specific	N	1	0	1-1	c19.1	Multiple linear regression
Go to row 100	03.074	AJODO18i-Pandis	Non-specific	N	3.5	2	1-3	c19.1	Linear regression
Go to row 101	03.075	AJODO18j-Pandis	Non-specific	N	1.5	1	2-1	c19.1	Correlation and linear regression
Go to row 102	03.076	AJODO18k-Pandis	Non-specific	N	2.5	1	5-3	c19.1	Two way anova
Go to row 145	04.01	AJR05-Dendukuri	Non-specific	Y	12	14	3-7	c19.1, c19.2	
Go to row 244	08.07	ArchDisChil92e-Healy	Non-specific	N	4	0	0-4	c19.1	
Go to row 343	10.02	BMJ-SN98a-Altman	Non-specific	N	2	8	0-1	c19.1	
Go to row 371	10.30	BMJ-SN98a-Bland	Non-specific	N	1	2	0-0	c19.1	
Go to row 376	10.35	BMJ-SN94d-Bland	Non-specific	N	1	9	0-0	c19.1	same as 94a-Bland
Go to row 386	10.45	BMJ-SN94a-Bland	Non-specific	N	1	9	0-0	c19.1	
Go to row 408	10.67	BMJ-SN01-Vickers	Non-specific	N	2	8	1-1	c5.3, c7, c19.1	
Go to row 420	11.11	BJO14-Nash	Non-specific	N	3	9	2-1	c5.3, c19.1	
Go to row 444	13.05	Circulation08-Crawford	Non-specific	N	6	10	0-5	c19.1, c17	correlation
Go to row 447	13.08	Circulation08-Fitzmaurice	Non-specific	N	6	9	2-3	c20, c19.1	
Go to row 450	13.11	Circulation08-Larson	Non-specific	N	7	15	6-5	c30, c19.1	anova
Go to row 457	13.18	Circulation08-Slinker	Non-specific	N	6	18	1-3	c19.1	
Go to row 489	15.01	CC03-Bewick	Non-specific	Y	8	7	6-12	c19.1	Rather basic
Go to row 572	21.33	JCP19e-Streiner	Non-specific	N	3	11	1-2	c19.1	
Go to row 673	21.34	JCP19f-Streiner	Non-specific	N	3	17	1-1	c1, c19.1	
Go to row 812	27.14	NCP11-Tripepi	Non-specific	Y	8	8	3-2	c19.1, c19.2	
Go to row 844	30.06	Radiology03-Gareen	Non-specific	Y	5.5	11	3-1	c19.1, c19.2	
Go to row 858	30.18	Radiology03b-Zou	Non-specific	Y	4	31	3-4	c19.1	
Go to row 896	33.09	EJC1322-Wang	Non-specific	Y	9	28	2-4	c20, c19.1	
Go to row 907	34.11	MJA18-Richardson	Non-specific	N	2.5	8	2-2	c19.1, c19.2	

Logistic Regression – category 19.2 (c19.2)

Choose from the yellow boxes. The list appears at the bottom. Click a blue title to open the paper, or 'Go to row' to jump to it in the main sheet.

Category: **c19.1 (31)** and also this category (optional): **c19.2 (27)**

Include subcategories? **No** Yes: c5 also finds c5.1 to c5.3, and study type 1.2 also finds 1.2.1

More filters (optional)

Pages from: to

References from: to

Tables from: to

Figures from: to

Abstract (Y/N): **(any)** Y = has an abstract, N = no abstract

Study type: **(any)** the code at the start of the Study type cell

Journal: **(any)** the abbreviation at the start of the Title

Keyword (title or notes): e.g. Bland, trial, missing

4 papers found | c19.1, and c19.2

Open in main sheet	ID	Title (with hyperlinks)	Study type	Abs	Pages	Refs	Tables-Figs	Categories	Notes
Go to row 145	04.01	AJR05-Dendukuri	Non-specific	Y	12	14	3-7	c19.1, c19.2	
Go to row 812	27.14	NCP11-Tripepi	Non-specific	Y	8	8	3-2	c19.1, c19.2	
Go to row 844	30.06	Radiology03-Gareen	Non-specific	Y	5.5	11	3-1	c19.1, c19.2	
Go to row 907	34.11	MJA18-Richardson	Non-specific	N	2.5	8	2-2	c19.1, c19.2	



c19.1 = 31 papers

c19.2 = 27 papers



However,
c19.1 + c19.2 = 4 papers

Example 3: Searching for Categories with their Subcategories

Using “c19 + subcategories (c19.1 to c19.3)”

Regression Models/Regression Analysis – category 19 (c19)

Choose from the yellow boxes. The list appears at the bottom. Click a blue title to open the paper, or 'Go to row' to jump to it in the main sheet.

Category: **c19 (17)** and also this category (optional): **(any)**
Include subcategories? **No** Yes: c19 also finds c1 to c3, and study type 1.2 also finds 1.2.1

More filters (optional)

Pages from: to:

References from: to:

Tables from: to:

Figures from: to:

Abstract (Y/N): **(any)** Y = has an abstract, N = no abstract

Study type: **(any)** the code at the start of the Study type cell

Journal: **(any)** the abbreviation at the start of the Title

Keyword (title or notes): **(any)** e.g. Bland, trial, missing

17 papers found | c19

Open in main sheet	ID	Title (with hyperlinks)	Study type	Abs	Pages	Refs	Tables-Figs	Categories	Notes
Go to row 142	03.116	AJCO2023b-Valkenburg	Non-specific	N	3.5	4	2.0	c11, c19	Supervised learning
Go to row 219	07.20	ATM16g-Zhang	Non-specific	N	5	10	0.0	c19	17 (R software), 19.4, 29.1, 29.3 (variables selection)
Go to row 287	09.33	BMJRM15-Kontopantelis	1.2	Y	4	15	1.2	c19	
Go to row 302	09.46	BMJRM14-O'Keefe	1.2	Y	2.5	20	0.2	c19	
Go to row 335	09.81	BMJRM16-Venkataratnam	1.2	Y	5	31	2.1	c19	
Go to row 379	10.38	BMJRN94b-Bland	Non-specific	N	1	-	1.1	c17, c19, c20	
Go to row 516	16.13	DtschArzteblint10-Schneider	Non-specific	Y	6	8	1.3	c19, c18	
Go to row 537	16.34	DtschArzteblint24-Zapf	1.2 observational studies	Y	6	41	2.2	c19, c4	
Go to row 642	17.04	EurHeartJ14-Steyerberg	1.4	Y	7	51	3.2	c19, c36	
Go to row 651	21.12	JCP16a-Streiner	Non-specific	N	2.5	4	0.2	c19, c29.3	5.1 deleted, 29.3 included
Go to row 689	22.01	JThoracDis18-Bertani	Non-specific	Y	4	7	2.3	c22.2, c19	Added 19
Go to row 702	22.16	JThoracDis15-Guati	Non-specific	Y	5	11	0.5	c18, c20, c19	Added 19
Go to row 707	22.23	JThoracDis15-Mengual-Macenzie	Non-specific	Y	5	6	0.1	c19, c26	
Go to row 778	25.04	NDT07a-Ravani	Non-specific	N	8	19	5.6	c19, c6, c29	Some discussion of confounding and interaction
Go to row 779	25.05	NDT08b-Ravani	Non-specific	N	7	16	4.4	c19	CS: These 5 papers, all by the same author are not target to one problem but discuss many topics very briefly
Go to row 827	29.01	PsychosomMed04-Babvyak	Non-specific	Y	10	28	1.3	c19, c25, c27	Overfitting
Go to row 858	31.02	REC11-Nunez	Non-specific	Y	6	45	3.0	c19, c29	

Category: **c19 (17)**
Include subcategories? **No**
Yes

(any)
(any)
(any)

c19 = 17 papers

However,
c19 + subcats = 102 papers

Category 19 (c19) + subcats (c19.1, c19.1, and c19.3)

Choose from the yellow boxes. The list appears at the bottom. Click a blue title to open the paper, or 'Go to row' to jump to it in the main sheet.

Category: **c19 (17)** and also this category (optional): **(any)**
Include subcategories? **Yes** Yes: c19 also finds c1 to c3, and study type 1.2 also finds 1.2.1

More filters (optional)

Pages from: to:

References from: to:

Tables from: to:

Figures from: to:

Abstract (Y/N): **(any)** Y = has an abstract, N = no abstract

Study type: **(any)** the code at the start of the Study type cell

Journal: **(any)** the abbreviation at the start of the Title

Keyword (title or notes): **(any)** e.g. Bland, trial, missing

102 papers found | c19, incl. subcategories

Open in main sheet	ID	Title (with hyperlinks)	Study type	Abs	Pages	Refs	Tables-Figs	Categories	Notes	DOI (short version)
Go to row 6	01.05	AdhPRes13b-Curran-Everett	Non-specific	Y	6	45	1.0	c17, c19.1	19.1 (correlation = linear regression)	10.1101/000008.2010
Go to row 8	01.07	AdhPRes13b-Curran-Everett	Non-specific	Y	6	33	1.9	c19.1		10.1152/advan.00051.2011
Go to row 17	02.03	AJCO10-Boscardin	Non-specific	N	2	1	2.0	c19.1		10.1016/j.ajco.2010.02.022
Go to row 19	02.05	AJCO10-Huemer	Non-specific	N	2	3	1.1	c32, c19.3		10.1016/j.ajco.2008.07.040
Go to row 22	02.08	AJCO10-Lemeshow	Non-specific	N	2	1	3.0	c19.2		10.1016/j.ajco.2008.07.042
Go to row 23	03.004	AJCO02a-Buzekowski	Non-specific	N	3.5	4	1.0	c19.4	Generalized linear models	10.1016/j.ajco.2002.07.004
Go to row 42	03.016	AJCO02c-Kolets	Non-specific	N	1.5	3	2.0	c19.2	Conditional logistic regression	10.1016/j.ajco.2017.04.009
Go to row 45	03.019	AJCO018b-Kolets	Non-specific	N	1.5	3	3.0	c19.4	Ordinal regression	10.1016/j.ajco.2017.11.011
Go to row 46	03.009	AJCO018d-Pandis	Non-specific	N	1.5	1	2.0	c19.1	Arrows part 2	10.1016/j.ajco.2016.08.009
Go to row 49	03.070	AJCO015b-Pandis	Non-specific	N	2	1	4.1	c19.1	Arrows part 1	10.1016/j.ajco.2016.04.007
Go to row 47	03.071	AJCO018d-Pandis	Non-specific	N	1.5	1	4.0	c19.1	ANOVA	10.1016/j.ajco.2016.03.013
Go to row 48	03.072	AJCO018d-Pandis	Non-specific	N	1	0	2.0	c19.1	ANCOVA test	10.1016/j.ajco.2016.02.007
Go to row 49	03.073	AJCO018b-Pandis	Non-specific	N	1	0	1.1	c19.1	Multiple linear regression	10.1016/j.ajco.2016.01.012
Go to row 100	03.074	AJCO018d-Pandis	Non-specific	N	3.5	2	1.3	c19.1	Linear regression	10.1016/j.ajco.2015.11.019
Go to row 101	03.075	AJCO018d-Pandis	Non-specific	N	1.5	1	2.1	c19.1	Correlation and linear regression	10.1016/j.ajco.2015.11.019
Go to row 102	03.076	AJCO018d-Pandis	Non-specific	N	2.5	1	5.3	c19.1	Two way anova	10.1016/j.ajco.2015.10.007
Go to row 103	03.077	AJCO017a-Pandis	Non-specific	N	1	0	2.0	c19.2	Part 2	10.1016/j.ajco.2017.02.002
Go to row 104	03.078	AJCO017a-Pandis	Non-specific	N	2	4	2.0	c19.2	Part 1	10.1016/j.ajco.2017.01.017
Go to row 142	03.116	AJCO023b-Valkenburg	Non-specific	N	3.5	4	2.0	c11, c19	Supervised learning	10.1016/j.ajco.2023.04.010
Go to row 145	04.01	AR05-Denkert	Non-specific	Y	12	14	3.7	c19.1, c19.2		10.2214/aw.185.1.0185003
Go to row 148	04.04	AR05-Stehberg	Non-specific	N	4	6	2.6	c19.3, c32, c1		10.2214/aw.185.1.0185019
Go to row 168	05.18	AM02-McLemoh	1.4	Y	8	60	4.1	c19.3, c32, c35	22 (22.1), 24, 29 (29.3), 31 (31.2)	10.73206/M022.0444
Go to row 205	07.06	ATM16g-Zhang	Non-specific	Y	6	12	2.2	c19.2, c5	STRATOS T06-T08 paper	10.21037/atm.2016.05.42
Go to row 209	07.10	ATM16f-Zhang	Non-specific	Y	7	12	2.5	c11, c19.2, c19.1	6, 16, 29.2, 29.3 (interactions), 34.2	10.21037/atm.2016.02.15
Go to row 215	07.16	ATM16m-Zhang	Non-specific	Y	7	7	0.5	c19.2	17 (regression diagnostics), 29.1, 30, 36	10.21037/atm.2016.03.36
Go to row 216	07.17	ATM16n-Zhang	Non-specific	Y	7	17	0.5	c19.3, c29.2	17, 7, 30	10.21037/atm.2016.08.61
Go to row 219	07.20	ATM16a-Zhang	Non-specific	Y	5	10	0.0	c19	17 (R software), 19.4, 29.1, 29.3 (variables selection)	10.21037/atm.2016.03.35
Go to row 222	07.23	ATM16b-Zhang	Non-specific	Y	8	17	0.3	c19.3, c24, c32, c34.3	29.1, 29.3	10.21037/atm.2018.01.36
Go to row 229	07.30	ATM16c-Zhang	Non-specific	Y	9	6	0.4	c11, c19.2, c34.2	10, 22.1, 29.2, 30	10.21037/atm.2019.09.025
Go to row 230	07.31	ATM16e-Zhang	Non-specific	Y	9	21	0.4	c19.3, c29.2, c32, c34.3	22.4, 30	10.21037/atm.2018.02.12
Go to row 233	07.34	ATM16b-Zhang	Non-specific	Y	12	17	1.12	c19.2	11, 22.4, 29.1	10.21037/atm.2018.01.15
Go to row 244	08.07	ArchDisChr09e-Healy	Non-specific	N	4	0	0.4	c19.1		10.1136/adc.2017.10.1306
Go to row 252	08.15	ArchDisChr09e-Healy	Non-specific	N	5	2	4.1	c20.1, c1, c19.4		10.1136/adc.2017.10.1306
Go to row 253	08.16	ArchDisChr09e-Healy	Non-specific	N	5	2	4.1	c19.4, c1		10.1136/adc.2017.10.1306
Go to row 264	08.17	ArchDisChr09e-Healy	Non-specific	N	4	2	4.3	c19.3, c32, c34.3		10.1136/adc.2017.10.1306
Go to row 267	09.33	BMJRM15-Kontopantelis	1.2	Y	4	15	1.2	c19		10.1136/bmj.2015.02750
Go to row 292	09.48	BMJRM14-O'Keefe	1.2	Y	2.5	20	0.2	c19		10.1136/bmj.2014.02750
Go to row 304	09.50	BMJRM15-Playboy	Non-specific	Y	4	22	1.2	c18, c19.4		10.1136/bmj.2015.02750
Go to row 335	09.81	BMJRM16-Venkataratnam	1.2	Y	5	31	2.1	c19		10.1136/bmj.2016.02750
Go to row 343	10.02	BMJRN94a-Altmann	Non-specific	N	2	8	0.1	c19.1		10.1136/bmj.2017.17155.409
Go to row 379	10.30	BMJRN94b-Bland	Non-specific	N	1	2	0.0	c19.1	same as 94a-Bland	10.1136/bmj.2017.17155.409
Go to row 379	10.35	BMJRN94c-Bland	Non-specific	N	1	9	0.0	c19.1		10.1136/bmj.2017.17155.409
Go to row 379	10.38	BMJRN94d-Bland	Non-specific	N	1	9	0.0	c19.1		10.1136/bmj.2017.17155.409
Go to row 379	10.45	BMJRN94e-Bland	Non-specific	N	1	9	0.0	c19.1		10.1136/bmj.2017.17155.409
Go to row 392	10.51	BMJRN94f-Bland	Non-specific	N	1	3	1.0	c34.2, c31, c19.2		10.1136/bmj.2017.17155.409
Go to row 408	10.67	BMJRN94g-Bland	Non-specific	N	2	8	0.1	c19.1		10.1136/bmj.2017.17155.409
Go to row 410	11.01	BMJRN94h-Bland	Non-specific	N	2	15	0.0	c19.1		10.1136/bmj.2017.17155.409
Go to row 420	11.11	BMJRN94i-Bland	Non-specific	N	3	2	1.1	c3.3, c19.1		10.1136/bmj.2017.17155.409
Go to row 421	11.14	BMJRN94j-Bland	Non-specific	N	2	6	1.0	c19.2, c34.3, c29.1		10.1136/bmj.2017.17155.409
Go to row 429	12.06	BMJRN94k-Bland	Non-specific	N	1	4	0.0	c19.4		10.1136/bmj.2017.17155.409
Go to row 444	13.00	Circulation08-Comford	Non-specific	N	6	10	0.5	c18, c17	Lasso	10.1161/CIRCULATIONAHA.105.584952
Go to row 444	13.00	Circulation08-Comford	Non-specific	N	6	9	2.3	c20, c19.1	correlation	10.1161/CIRCULATIONAHA.107.144610

Summary

Many analyses are conducted by analysts with limited knowledge, experience and interest in statistical methods

All researchers and many stakeholders in health research are confronted with results from statistical (or AI) analyses. At least basic understanding of methods would help to identify serious weaknesses and whether results are trustworthy.

Reminder- Overview of early COVID prediction studies showed that nearly all studies had severe weaknesses.

Characteristics of articles published in statistical series of medical journals vary a lot, ranging from 1 page to more than 15 pages and touch small basic topics up to important details about multivariable model and issues like measurement error, multiple testing and more.

Our categorization helps to find articles about a topic of interest and lists some basic characteristics, but it does not assess the quality of the article.

For each statistical topic, many excellent articles are published and our project aims to help finding them.

A big thanks to all STRATOS members who helped writing short explanations about the statistical topics and classified the articles