SPECIAL COMMUNICATION

The most cited authors and papers in tobacco control

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In this paper, we present the first attempt at determining which authors of research and commentary of direct relevance to tobacco control have the most cited publications in this field. We examine this from 1980 to 2004 and also for the past decade (1994–2004) in an effort to distinguish the 100 overall most cited authors for these periods. We have also provided a list of the 50 highest citation classics in tobacco control.

Citations are the most common way of measuring the impact in the scientific community of an article, and cumulatively, of a researcher.^{1–3} However, there can be important differences between evaluating impact and the quality of a paper. The quality of a paper is essentially characterised by the notion of possible value and this cannot be easily measured in an objective and quantitative way.⁴ Smith has suggested a range of ways in which scientific output might otherwise be evaluated, but all of these outcomes can be less easily measured than by calculating citations.⁵ While use of databases for citation analysis have been widely criticised,⁶ they do offer the easiest approach for assembling “ball park” data even when taking into consideration that the databases do not distinguish between positive and negative credits. Authors generally cite exemplary or important articles. While controversial badly flawed articles can also be highly cited in critical articles referring to them, it seldom happens that an author will repeatedly produce such highly cited flawed articles.

The field of tobacco control is very broad and includes basic science on toxicology, pharmacology, and genetics; clinical research reporting on the impact of tobacco use on individuals' health; epidemiological research on large populations; studies of tobacco use; and matters relevant to policies and programmes designed to reduce tobacco use and the harm it causes. There is a huge body of epidemiological research, which examines multiple risk factors for disease, where tobacco use is only one variable examined. Such research can be vital to the evidence base that underlies the case for tobacco control and the content of public awareness campaigns. As will be seen, many authors of such studies have been ranked highly and dominate the lists. While some may question their inclusion arguing that multiple risk factor epidemiology is not “true” tobacco control research, we reject that argument on both substantive and practical grounds. Culling such articles manually would have taken hundreds of hours, generated understandable controversy, and resulted in many highly influential epidemiological studies being capriciously discarded for the dubious purpose of elevating some authors doing more work precisely focused around tobacco “control”.

METHODS

Authors were identified using the Thomson Institute of Scientific Information (ISI) Web of Science (WoS) database. WoS includes original contributions, reviews, letters, editorials, text chapters, and published conference abstracts. None of these were excluded, on the rationale that any type of paper that was highly cited was of interest to the field. In August 2004, advanced WoS search queries combining topic

and title fields were conducted to facilitate the construction of a shortlist of authors. The search string TS = (tobacco* OR smok* OR cigarette* OR nicotine* OR nonsmok*) OR TI = (tobacco* OR smok* OR cigarette* OR nicotine* OR nonsmok*)† was run for each year between 1980 to 2004. The search covered all articles indexed in the Science Citation Index Expanded, the Social Science Citation Index, and the Arts and Humanities Citation Index, and 106 789 records were downloaded.

As WoS has a download limit of 500 citations, the data were downloaded in batches of 500 for each year. The accumulated batches were then imported into two databases: Histcite Trial Version (HistCite (Vlad) Version: 2004.05.14) and Postgres SQL. Histcite is a system designed to assist in identifying the most cited papers retrieved in topical searches of WoS.⁷ HistCite can create tables by author, year, or citation frequency.⁷

The data were imported into HistCite in annual batches and a bibliography representing each year was saved. The bibliographies were then re-imported into HistCite and merged to a level at which the database would cope: 1980–1989, 1990–1996, 1997–1999, 2000–2001 and 2002–2004.

To generate the shortlist of authors for 1980–2004, the top 300 names by citation frequency from each batch were then extracted and imported into Excel, subsequently merged, and re-sorted by citation frequency. Names and associated papers were reviewed by revisiting the complete dataset in the Postgres SQL database. Importantly, to appear on the shortlist of authors, a person needed to have published at least 10 publications as first author.

The same procedure was carried out to compile a list of authors for the period 1994–2004.

Updated data for the authors on the shortlists were collected in February 2005. As the WoS database is updated on a weekly basis, the top 100 names for each time period were searched individually and combined with the following topic/title search using WoS data updated as at 12 February 2005:

TS = (TS = (tobacco* OR smok* OR cigarette* OR nicotine* OR nonsmok*) OR TI = (tobacco* OR smok* OR cigarette* OR nicotine* OR nonsmok*)) AND AU = ((AU = Surname Initial*))
The settings were DocType = All document types; Language = All languages; Databases = SCI-EXPANDED, SSCI, A&HCI; Timespan = The specified time period which was either 1994–2004 OR 1980–2004.

The downloaded data were then imported into HistCite as well as an Endnote 7.0 Library for each dataset (1980–2004 and 1994–2004). HistCite was used to compute the preliminary data and the results were exported into two Excel workbooks (1980–2004 and 1994–2004). Each name was cross checked using the data in the Endnote Library to detect any anomalies and also to confirm that each author had published ≥ 10 papers as first author.

† A list of exclusion keywords was run in conjunction with the topic search to primarily exclude results concerned with tobacco agronomy.

Table 1 Top 100 authors 1980–2004

Rank	Author	Sex	Country	Total cites	Total papers	Cites/paper	First author	Field*
1	Stampfer MJ	M	USA	27819	235	118.4	10	2
2	Willett WC	M	USA	24601	279	88.2	13	2
3	Colditz GA	M	USA	15983	201	79.5	19	2
4	Ridker PM	M	USA	10148	78	130.1	34	2
5	Prochaska JO	M	USA	8521	86	99.1	30	8
6	Benowitz NL	M	USA	8164	301	27.1	104	7
7	Wilson PWF	M	USA	7321	113	64.8	16	2
8	Giovannucci E	M	USA	6498	87	74.7	24	2
9	Hecht SS	M	USA	6269	217	28.9	80	11
10	DiClemente CC	M	USA	6051	51	118.7	11	8
11	La Vecchia C	M	Italy	5788	305	19.0	42	2
12	Folsom AR	M	USA	5523	140	39.5	17	2
13	Hoffmann D	M	USA	5495	184	29.9	45	11
14	Collins AC	M	USA	5303	147	36.1	16	5
15	Salonen JT	M	Finland	5147	97	53.1	22	2
16	Barrett-Connor E	F	USA	5018	103	48.7	22	2
17	Kannel WB	M	USA	4985	69	72.3	29	2
18	Weiss ST	M	USA	4931	169	29.2	18	4
19	Kromhout D	M	Netherlands	4796	112	42.8	11	2
20	Russell MAH	M	UK	4558	114	40.0	34	5
21	Thun MJ	M	USA	4457	91	49.0	15	2
22	Velicer WF	M	USA	4416	61	72.4	13	8
23	Peto R	M	UK	4311	56	77.0	18	2
24	Hughes JR	M	USA	4131	148	27.9	100	5
25	Jacob P	M	USA	4127	126	32.8	24	7
26	Tuomilehto J	M	Finland	4079	112	36.4	13	2
27	Pierce JP	M	USA	4060	129	31.5	44	2
28	Jarvis MJ	M	UK	3941	128	30.8	58	8
29	Friedman GD	M	USA	3910	60	65.2	19	2
30	Fiore MC	M	USA	3879	100	38.8	32	4
31	Marks MJ	M	USA	3773	88	42.9	27	3
32	McLaughlin JK	M	USA	3729	101	36.9	14	4
33	Franceschi S	F	Italy	3660	171	21.4	23	2
34	Kuller LH	M	USA	3655	98	37.3	16	2
35	Clarke PBS	M	UK/Canada	3530	52	67.9	28	5
36	Stamler J	M	USA	3526	60	58.8	10	4
37	Henningfield JE	M	USA	3521	167	21.1	64	5
38	Negri E	F	Italy	3495	179	19.5	19	2
39	Lichtenstein E	M	USA	3478	101	34.4	20	8
40	Wynder EL	M	USA	3468	129	26.9	30	2
41	Hu FB	M	USA	3306	70	47.2	29	2
42	Flay BR	M	USA	3302	102	32.4	14	8
43	Bartsch H	M	Germany	3288	95	34.6	14	11
44	Smith GD	M	UK	3271	117	28.0	22	2
45	Strachan DP	M	UK	3239	64	50.6	23	2
46	Spitz MR	F	USA	3224	134	24.1	18	2
47	Levin ED	M	USA	3062	104	29.4	57	5
48	Nordberg A	F	Sweden	3020	98	30.8	24	5
49	Martinez FD	M	USA	2985	40	74.6	10	4
50	Tashkin DP	M	USA	2957	120	24.6	33	4
51	Abrams DB	M	USA	2874	110	26.1	11	8
52	Pryor WA	M	USA	2837	68	41.7	19	1
53	Yu MC	F	USA	2767	71	39.0	13	2
54	Vineis P	M	Italy	2746	91	30.2	32	2
55	Fortmann SP	M	USA	2741	63	43.5	11	2
56	Lowe GDO	M	UK	2675	67	39.9	12	4
57	Marcus BH	F	USA	2657	50	53.1	20	8
58	Trichopoulos D	M	Greece/USA	2617	97	27.0	12	2
59	Murray DM	M	USA	2611	75	34.8	23	8
60	Slotkin TA	M	USA	2608	94	27.7	28	7
61	Knekt P	M	Finland	2601	51	51.0	22	2
62	Ockene JK	F	USA	2592	99	26.2	31	2
63	Xu XP	M	USA	2579	66	39.1	21	2
64	Hurt RD	M	USA	2563	133	19.3	37	4
65	Perry CL	F	USA	2561	55	46.6	18	9
66	Barnes PJ	M	UK	2559	90	28.4	13	4
67	Glassman AH	M	USA	2526	29	87.1	14	5
68	Doll R	M	UK	2497	42	59.5	25	2
69	Klein R	M	USA	2441	95	25.7	26	6
70	Glantz SA	M	USA	2431	167	14.6	51	10
71	Rose JE	M	USA	2426	109	22.3	44	5
72	Glasgow RE	M	USA	2357	95	24.8	38	8
73	Lebowitz MD	M	USA	2313	70	33.0	19	2
74	Samet JM	M	USA	2302	94	24.5	29	2
75	Shiffman S	M	USA	2271	98	23.2	53	5
76	Rennard SI	M	USA	2243	97	23.1	15	4
77	Klein BEK	F	USA	2232	81	27.6	12	6
78	Shaper AG	M	UK	2229	61	36.5	10	2
79	Boffetta P	M	France/Germany	2228	147	15.2	30	2
80	Kozlowski LT	F	Canada/USA	2197	95	23.1	66	8
81	Baron JA	M	USA	2184	62	35.2	24	2

Table 1 Continued

Rank	Author	Sex	Country	Total cites	Total papers	Cites/paper	First author	Field*
82	Hogg JC	M	Canada	2167	84	25.8	13	4
83	Cummings SR	M	USA	2144	44	48.7	10	2
84	Perera FP	F	USA	2133	62	34.4	19	2
85	Schwartz J	M	USA	2096	47	44.6	13	2
86	Tager IB	M	USA	2081	50	41.6	16	2
87	Omenn GS	M	USA	2077	29	71.6	12	2
88	Vartiainen E	M	Finland	2000	77	26.0	16	2
89	Gilpin EA	F	USA	1981	69	28.7	20	10
90	Luepker RV	M	USA	1976	50	39.5	10	2
91	Wonnacott S	F	UK	1968	64	30.8	12	5
92	Hemminki K	M	Sweden	1940	79	24.6	22	2
93	Botvin GJ	M	USA	1919	81	23.7	27	8
94	Stolerman IP	M	UK	1902	96	19.8	36	5
95	Vainio H	M	Finland/France/Sweden	1896	74	25.6	17	4
96	Fagerstrom KO	M	Sweden	1884	49	38.5	30	8
97	Jorenby DE	M	USA	1876	42	44.7	11	8
98	Boyle P	M	Italy	1859	96	19.4	18	2
99	Orleans CT	F	USA	1855	71	26.1	26	8
100	Hall SM	F	USA	1847	53	34.9	20	8

*See key for field codes.
F, female; M, male.

Table 2 Top 100 authors 1994–2004

Rank	Author	Sex	Country	Total cites	Total papers	Cites/paper	First author	Field*
1	Colditz GA	M	USA	9532	167	57.1	13	2
2	Ridker PM	M	USA	9273	73	127.0	29	2
3	Giovannucci E	M	USA	4808	82	58.6	21	2
4	Wilson PWF	M	USA	4394	91	48.3	12	2
5	Thun MJ	M	USA	3962	89	44.5	17	2
6	Folsom AR	M	USA	3706	112	33.1	10	2
7	Hu FB	M	USA	3306	70	47.2	29	2
8	La Vecchia C	M	Italy	3076	221	13.9	27	2
9	Spitz MR	F	USA	2890	124	23.3	13	2
10	Strachan DP	M	UK	2853	55	51.9	16	2
11	Barnes PJ	M	UK	2444	81	30.2	13	4
12	Fiore MC	M	USA	2364	80	29.6	19	4
13	Prochaska JO	M	USA	2363	59	40.1	16	8
14	Hurt RD	M	USA	2301	120	19.2	27	4
15	Barrett-Connor E	F	USA	2288	73	31.3	14	2
16	Benowitz NL	M	USA	2237	161	13.9	49	7
17	Weiss ST	M	USA	2207	108	20.4	10	4
18	Doll R	M	UK	2139	32	66.8	20	2
19	Hecht SS	M	USA	2118	132	16.0	57	11
20	Smith GD	M	UK	2023	105	19.3	17	2
21	Pierce JP	M	USA	1979	75	26.4	18	2
22	Franceschi S	F	Italy	1957	124	15.8	16	2
23	Levin ED	M	USA	1910	75	25.5	40	5
24	Schwartz J	M	USA	1909	42	45.5	10	2
25	Negri E	F	Italy	1908	127	15.0	13	2
26	Klein R	M	USA	1897	82	23.1	20	6
27	Glantz SA	M	USA	1751	141	12.4	37	10
28	Vartiainen E	M	Finland	1712	64	26.8	10	2
29	Perera FP	F	USA	1701	52	32.7	16	2
30	Gilpin EA	F	USA	1632	60	27.2	19	10
31	Boffetta P	M	France/Germany	1628	136	12.0	27	2
32	Kannel WB	M	USA	1606	24	66.9	11	2
33	Marcus BH	F	USA	1579	40	39.5	13	8
34	Menotti A	M	Italy	1540	55	28.0	16	2
35	Knekt P	M	Finland	1510	31	48.7	14	2
36	Slotkin TA	M	USA	1507	71	21.2	20	7
37	Enright PL	M	USA	1490	46	32.4	13	4
38	Kawachi I	M	USA	1440	51	28.2	13	2
39	Picciotho MR	F	USA	1363	39	34.9	15	5
40	Seidell JC	M	Netherlands	1349	40	33.7	10	2
41	Chow WH	F	USA	1316	36	36.6	12	2
42	Cook DG	M	UK	1293	39	33.2	10	2
43	Niaura R	M	USA	1292	110	11.7	20	5
44	Henningfield JE	M	USA	1283	91	14.1	28	5
45	Hemminki K	M	Sweden	1275	65	19.6	21	2
46	Vineis P	M	Italy	1248	63	19.8	18	2
47	Sunyer J	M	Spain	1203	58	20.7	18	2
48	Shiffman S	M	USA	1172	77	15.2	35	8
49	Sacco RL	M	USA	1162	26	44.7	12	2

Table 2 Continued

Rank	Author	Sex	Country	Total cites	Total papers	Cites/paper	First author	Field*
50	Wu XF	F	USA	1151	60	19.2	18	2
51	Samet JM	M	USA	1148	52	22.1	15	2
52	Levi F	M	Switzerland	1145	80	14.3	33	2
53	Emmons KM	F	USA	1137	67	17.0	22	8
54	Law MR	M	UK	1136	20	56.8	14	2
55	Rose JE	M	USA	1115	53	21.0	23	5
56	Howard G	M	USA	1047	26	40.3	10	10
57	Jousilahti P	M	Finland	1030	36	28.6	19	2
58	Vainio H	M	Finland/France/Sweden	1028	51	20.2	12	4
59	Boyle P	M	Italy	1017	67	15.2	16	2
60	Benhamou S	F	France	1013	50	20.3	13	10
61	Glasgow RE	M	USA	1011	55	18.4	18	8
62	Murray DM	M	USA	974	45	21.6	11	8
63	Rigotti NA	F	USA	950	70	13.6	21	4
64	Saetta M	F	Italy	945	34	27.8	11	4
65	Hart CL	F	UK	940	44	21.4	13	10
66	Wynder EL	M	USA	934	47	19.9	11	2
67	Xu XP	M	USA	927	57	16.3	14	2
68	Jacob P	M	USA	906	67	13.5	12	1
69	Cerhan JR	M	USA	902	45	20.0	13	2
70	Rahman I	M	UK	901	32	28.2	18	4
71	Britton J	M	UK	885	52	17.0	21	4
72	Perkins KA	M	USA	866	77	11.2	55	8
73	Nakajima M	M	Japan	858	36	23.8	19	7
74	Lichtenstein E	M	USA	852	55	15.5	11	8
75	Baron JA	M	USA	846	34	24.9	13	2
76	Hughes JR	M	USA	843	82	10.3	56	5
77	Ford ES	M	USA	826	45	18.4	23	2
78	Ritz E	M	Germany	816	32	25.5	11	4
79	Stolerman IP	M	UK	805	59	13.6	18	2
80	Brownson RC	M	USA	805	45	17.9	12	5
81	Wetter DW	M	USA	803	32	25.1	11	8
82	Orleans CT	F	USA	801	46	17.4	13	8
83	Mancia G	M	Italy	789	31	25.5	10	4
84	Prescott E	F	Denmark	789	49	16.1	21	4
85	Damaj MI	M	USA	787	43	18.3	21	7
86	Bolvin GJ	M	USA	781	56	13.9	13	8
87	Breslau N	F	USA	772	30	25.7	18	2
88	Sussman S	M	USA	753	61	12.3	26	8
89	Kandel DB	F	USA	744	18	41.3	10	2
90	Tavani A	F	Italy	742	48	15.5	31	2
91	Staessen JA	M	Belgium	738	26	28.4	10	4
92	Nyberg F	M	Sweden	714	49	14.6	11	2
93	Cnattingius S	M	Sweden	712	44	16.2	12	2
94	Sorensen G	F	USA	690	39	17.7	19	9
95	Inoue M	F	Japan	682	48	14.2	14	2
96	Zhang ZF	M	USA	661	49	13.5	12	2
97	Jeffery RW	M	USA	660	30	22.0	10	8
98	DiFranza JR	M	USA	659	41	16.1	27	4
99	Lam S	M	Canada	657	18	36.5	10	4
100	DuRant RH	M	USA	636	28	22.7	13	4

*See key for field codes.

Field key

Code	Field	Notes
1	Chemistry	Includes biochemistry
2	Epidemiology	
3	Genetics	
4	Medicine	
5	Neuropsychopharmacology	All branches of medicine, including family medicine, internal medicine, thoracic medicine, preventive medicine, adolescent medicine and paediatrics Includes neuropsychology, psychopharmacology, behavioural pharmacology
6	Ophthalmology	Includes all branches, includes clinical psychology
7	Pharmacology	
8	Psychology	
9	Sociology/education	Includes biostatistics
10	Statistics	
11	Tobacco carcinogenesis/ environmental carcinogenesis	

The top 50 articles were selected from the initial August 2004 data download. Papers that had more than 150 citations (957 in total) were exported from the Postgres SQL database and imported into an Excel spreadsheet for sorting and analysis. Papers were selected if they were on tobacco use prevention and control as well as epidemiological papers regarded as seminal in establishing the harms of tobacco use.

RESULTS

Our final analysis included 9745 papers for the period 1980–2004 and 7644 papers for the period 1994–2004. Table 1 shows the 100 most cited individuals 1980–2004 by total citations. The honour of the most cited author goes to Meir Stampfer from the Harvard School of Public Health. The person who has the highest mean number of citations is Paul Ridker, Eugene Braunwald Professor of Medicine at Harvard Medical School. Over 70% of authors are from North America with the remainder from Europe. There are a higher percentage of male authors (84%) than female authors (16%). Forty seven per cent of the authors conduct

Table 3 Top 50 papers selected as citation classics (August 2004 download data)

Rank	Paper	Times cited
1	Prochaska JO, Diclemente CC, Norcross JC. In search of how people change: applications to addictive behaviors. <i>Am Psychol</i> 1992; 47 :1102-14.	1388
2	Prochaska JO, Diclemente CC. Stages and processes of self-change of smoking: toward an integrative model of change. <i>J Consult Clin Psychol</i> 1983; 51 :390-95.	1232
3	McGinnis JM, Foege WH. Actual causes of death in the United States. <i>JAMA</i> 1993; 270 :2207-12.	998
4	Davis DA, Thomson MA, Oxman AD, et al. Changing physician performance: a systematic review of the effect of continuing medical education strategies. <i>JAMA</i> 1995; 274 :700-05.	894
5	Hjermann I, Holme I, Byre KV, et al. Effect of diet and smoking intervention on the incidence of coronary heart disease: report from the Oslo Study Group of a randomized trial in healthy men. <i>Lancet</i> 1981; 2 :1303-10.	794
6	Doll R, Peto R, Wheatley K, et al. Mortality in relation to smoking: 40 years' observations on male British doctors. <i>BMJ</i> 1994; 309 :901-11.	675
7	Heatherton TF, Kozlowski LT, Frecker RC, et al. The Fagerstrom Test for Nicotine Dependence: a revision of the Fagerstrom Tolerance Questionnaire. <i>Br J Addict</i> 1991; 86 :1119-27.	566
8	Couturier S, Bertrand D, Matter JM, et al. A neuronal nicotinic acetylcholine receptor subunit (α 7) is developmentally regulated and forms a homo-oligomeric channel blocked by α -BTX. <i>Neuron</i> 1990; 5 :847-56.	559
9	Diclemente CC, Fairhurst SK, Velasquez MM, et al. The process of smoking cessation: an analysis of precontemplation, contemplation, and preparation stages of change. <i>J Consult Clin Psychol</i> 1991; 59 :295-304.	546
10	Resnick MD, Bearman PS, Blum RW, et al. Protecting adolescents from harm: findings from the national longitudinal study on adolescent health. <i>JAMA</i> 1997; 278 :823-32.	530
11	Celermajer DS, Sorensen KE, Georgakopoulos D, et al. Cigarette smoking is associated with dose-related and potentially reversible impairment of endothelium-dependent dilation in healthy young adults. <i>Circulation</i> 1993; 88 :2149-55.	523
12	Lundberg JM, Saria A. Capsaicin-induced desensitization of airway mucosa to cigarette-smoke, mechanical and chemical irritants. <i>Nature</i> 1983; 302 :251-53.	487
13	Flores CM, Rogers SW, Pabreza LA, et al. A subtype of nicotinic cholinergic receptor in rat-brain is composed of α -4 and β -2 subunits and is up-regulated by chronic nicotine treatment. <i>Mol Pharmacol</i> 1992; 41 :31-37.	473
14	Prochaska JO, Velicer WF, Rossi JS, et al. Stages of change and decisional balance for 12 problem behaviors. <i>Health Psychol</i> 1994; 13 :39-46.	471
15	Benowitz NL. Pharmacologic aspects of cigarette smoking and nicotine addiction. <i>N Engl J Med</i> 1988; 319 :1318-30.	467
16	McGehee DS, Heath MJ, Gelber S, et al. Nicotine enhancement of fast excitatory synaptic transmission in CNS by presynaptic receptors. <i>Science</i> 1995; 269 :1692-96.	448
17	Ames BN, Gold LS, Willett WC. The causes and prevention of cancer. <i>Proc Natl Acad Sci USA</i> 1995; 92 :5258-65.	446
18	Church DF, Pryor WA. Free-radical chemistry of cigarette smoke and its toxicological implications. <i>Environ Health Perspect</i> 1985; 64 :111-26.	440
19	Murray CJL, Lopez AD. Global mortality, disability, and the contribution of risk factors: Global Burden of Disease Study. <i>Lancet</i> 1997; 349 :1436-42.	439
20	Peto R, Lopez AD, Boreham J, et al. Mortality from tobacco in developed-countries: indirect estimation from national vital-statistics. <i>Lancet</i> 1992; 339 :1268-78.	435
21	Leventhal H, Cleary PD. The smoking problem: a review of the research and theory in behavioral risk modification. <i>Psychol Bull</i> 1980; 88 :370-405.	427
22	Anthonisen NR, Connett JE, Kiley JP, et al. Effects of smoking intervention and the use of an inhaled anticholinergic bronchodilator on the rate of decline of FEV ₁ : the Lung Health Study. <i>JAMA</i> 1994; 272 :1497-505.	420
23	Oxman AD, Thomson MA, Davis DA, et al. No magic bullets: a systematic review of 102 trials of interventions to improve professional practice. <i>CMAJ</i> 1995; 153 :1423-31.	418

Table 3 Continued

Rank	Paper	Times cited
24	Wilson PWF, Garrison RJ, Castelli WP. Postmenopausal estrogen use, cigarette-smoking, and cardiovascular morbidity in women over 50: the Framingham Study. <i>N Engl J Med</i> 1985; 313 :1038-43.	417
25	Glassman AH, Helzer JE, Covey LS, et al. Smoking, smoking cessation, and major depression. <i>JAMA</i> 1990; 264 :1546-49.	412
26	Hirayama T. Non-smoking wives of heavy smokers have a higher risk of lung-cancer: a study from Japan. <i>Br Med J (Clin Res Ed)</i> 1981; 282 :183-85.	409
27	Blot WJ, McLaughlin JK, Winn DM, et al. Smoking and drinking in relation to oral and pharyngeal cancer. <i>Cancer Res</i> 1988; 48 :3282-87.	407
28	Imperato A, Mulas A, Dichiaro G. Nicotine preferentially stimulates dopamine release in the limbic system of freely moving rats. <i>Eur J Pharmacol</i> 1986; 132 :337-38.	393
29	Hecht SS, Hoffmann D. Tobacco-specific nitrosamines, an important group of carcinogens in tobacco and tobacco-smoke. <i>Carcinogenesis</i> 1988; 9 :875-84.	390
30	Hurt RD, Sachs DPL, Glover ED, et al. A comparison of sustained-release bupropion and placebo for smoking cessation. <i>N Engl J Med</i> 1997; 337 :1195-202.	382
31	Hughes JR, Hatsukami DK, Mitchell JE, et al. Prevalence of smoking among psychiatric outpatients. <i>Am J Psychiatry</i> 1986; 143 :993-97.	379
32	Fagerstrom KO, Schneider NG. Measuring nicotine dependence: a review of the Fagerstrom Tolerance Questionnaire. <i>J Behav Med</i> 1989; 12 :159-82.	372
33	Hughes JR, Hatsukami D. Signs and symptoms of tobacco withdrawal. <i>Arch Gen Psychiatry</i> 1986; 43 :289-94.	368
34	Jorenby DE, Leischow SJ, Nides MA, et al. A controlled trial of sustained-release bupropion, a nicotine patch, or both for smoking cessation. <i>N Engl J Med</i> 1999; 340 :685-91.	362
35	Hunninghake GW, Crystal RG. Cigarette-smoking and lung destruction: accumulation of neutrophils in the lungs of cigarette smokers. <i>Am Rev Respir Dis</i> 1983; 128 :833-38.	359
36	Anda RF, Williamson DF, Escobedo LG, et al. Depression and the dynamics of smoking: a national perspective. <i>JAMA</i> 1990; 264 :1541-45.	353
37	Levin ED. Nicotinic systems and cognitive function. <i>Psychopharmacology</i> 1992; 108 :417-31.	352
38	Conditte MM, Lichtenstein E. Self-efficacy and relapse in smoking cessation programs. <i>J Consult Clin Psychol</i> 1981; 49 :648-58.	348
39	Jones JG, Lawler P, Crawley JCW, et al. Increased alveolar epithelial permeability in cigarette smokers. <i>Lancet</i> 1980; 1 :66-68.	340
40	Kannel WB, Belanger AJ. Epidemiology of heart failure. <i>Am Heart J</i> 1991; 121 :951-57.	338
41	Stryker WS, Kaplan LA, Stein EA, et al. The relation of diet, cigarette-smoking, and alcohol-consumption to plasma beta-carotene and alpha-tocopherol levels. <i>Am J Epidemiol</i> 1988; 127 :283-96.	334
42	Shinton R, Beevers G. Meta-analysis of relation between cigarette smoking and stroke. <i>BMJ</i> 1989; 298 :789-94.	333
43	Shiffman S. Relapse following smoking cessation: a situational analysis. <i>J Consult Clin Psychol</i> 1982; 50 :71-86.	330
44	Hoffmann D, Hecht SS. Nicotine-derived N-nitrosamines and tobacco-related cancer: current status and future directions. <i>Cancer Res</i> 1985; 45 :935-44.	320
45	Jarvis MJ, Tunstall Pedoe H, Feyerabend C, et al. Comparison of tests used to distinguish smokers from nonsmokers. <i>Am J Public Health</i> 1987; 77 :1435-38.	319
46	Meade TW, Imeson J, Stirling Y. Effects of changes in smoking and other characteristics on clotting factors and the risk of ischemic heart disease. <i>Lancet</i> 1987; 2 :986-88.	315
47	Celermajer DS, Adams MR, Clarkson P, et al. Passive smoking and impaired endothelium-dependent arterial dilatation in healthy young adults. <i>N Engl J Med</i> 1996; 334 :150-54.	315
48	Pontieri FE, Tanda G, Orzi F, et al. Effects of nicotine on the nucleus accumbens and similarity to those of addictive drugs. <i>Nature</i> 1996; 382 :255-57.	310
49	Glassman AH. Cigarette-smoking: implications for psychiatric-illness. <i>Am J Psychiatry</i> 1993; 150 :546-53.	302
50	Ware JH, Dockery DW, Spiro A, et al. Passive smoking, gas cooking, and respiratory health of children living in 6 cities. <i>Am Rev Respir Dis</i> 1984; 129 :366-74.	300

epidemiological research, followed by 16% in the field of psychology, and 12% in medicine and neuropsychopharmacology, respectively.

Table 2 lists the 100 most cited individuals 1994–2004 by total citations and the honour of the most cited author goes to an Australian, Graham Colditz, Professor in the Department of Epidemiology, Channing Laboratory, Harvard School of Public Health. The person with the highest mean number of citations is again Paul Ridker. Sixty four per cent of authors are from North America, 34% from Europe, and 2% from Asia. Female author representation is 22% and male authorship is 78%. Fifty per cent of the authors conduct epidemiological research, and other predominant fields include branches of medicine (17%) and psychology (13%).

There were 53 authors who appeared on both lists.

The papers that were selected for inclusion in the top 50 (table 3) were published from 1980 to 1999, with 52% published from 1990. Eighty per cent of the papers selected for inclusion were published in journals with ISI impact factors ranging from 2.352 (*European Journal of Pharmacology*) to 34.833 (*New England Journal of Medicine*); 12% of the papers were published in *JAMA*, followed by 10% in both the *Lancet* (impact factor 18.316) and the *New England Journal of Medicine* (impact factor 34.833).

DISCUSSION

Both lists of highly cited authors are heavily dominated by “big” epidemiology papers, often being multiple risk factor studies where tobacco was one (important) variable being examined. These studies have often been the bedrock on which tobacco control policy rests and so are deservedly important. More practically, they are often cited in the introductory sections of papers when authors often run through a summary of why smoking is a health problem. Similar observations apply to another heavily cited category: nicotine pharmacology.

There are several reasons to limit interpretations of the results presented. Firstly, we recognise that use of WoS for citation analysis has been widely criticised,⁶ and as WoS does not cover all papers published the results should only be considered as “ball park” figures. Secondly, as a research study it is not precisely reproducible because: (1) WoS is a dynamic database, updated on a weekly basis; (2) authors selected for inclusion may differ between reviewers; and (3) it is impossible to ensure that all papers for an author have been detected due to potential errors in the data as well as

finding all works of authors using two or more names. Thirdly, the selection criteria for including authors (≥ 10 publications as first author) may have excluded authors who had highly cited papers. We imposed this threshold to reduce the number of individuals who assisted in the preparation of frequently cited papers but did not make the most significant contribution. Fourthly, as the preliminary data involved over 100 000 records and were merged in batches there is a probability that an author may have been excluded from the final list of names due to computation errors. Further limitations include the assumption that many authors try to support the interpretation of their own results when attempting to convince or persuade readers.⁸ Biased citing, such as self citation and bias towards citing English language publications, are recognised as potential problems.⁴ A study of citation counts in the area of addiction found that the number of citations received by papers appeared to reflect the geographic region of the study (the huge dominance of American authors citing American journals) rather than necessarily their importance as agreed by peers.⁹ These criticisms and observations should be taken into consideration when interpreting the results.

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