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Twenty top papers to mark *The BMJ's* two digital decades

Since 1995, *The BMJ* has been published online reaching a wider audience than ever before.

David Payne, digital editor, looks back at 20 articles whose impact is still felt today.

To mark the 20th anniversary of *The BMJ's* website, the journal asked 20 UK and international readers, authors, friends, and former colleagues to name an outstanding article published since the mid-1990s. The result is an extraordinary mix of editorials, research papers, analysis, and comment, including an investigation, on topics as wide ranging as the MMR vaccine scare, death, evidence based medicine, and the use of stirrups for pelvic examinations. Some represent seminal moments in recent medical history, others are pieces of research that, for their sheer simplicity and focus on patient experience, have inspired our readers to think and work differently.

So here is *The BMJ's* top 20 and why, according to our 20 chosen readers, they are the best.



01

The scandal of poor medical research, D G Altman

Editorial, *BMJ* 1994;308:283

"The development of the EQUATOR Network (www.equator-network.org) to improve reports of research and the 2014 *Lancet* series of papers on ways of increasing value and reducing waste in research (www.researchwaste.net) are just two examples of testimony to the enduring influence of Doug's 1994 call for 'less research, better research, and research done for the right reasons.'"

Iain Chalmers, health services researcher and a founder of the Cochrane Collaboration

"This article really put 'too much medicine' on the map for me and for many people"
– Muir Gray

02

Evidence based medicine: what it is and what it isn't, David L Sackett, William M C Rosenberg, J A Muir Gray, et al

Editorial, *BMJ* 1996;312:71

"Over the past 30 years we have seen medicine transformed from being based on the opinions of 'experts' to being based on systematic collation of evidence from clinical studies. There is still a vast amount to do to improve the evidence base itself. But articles such as this have helped explain to doctors the key principles of evidence based medicine and have inspired a new generation of clinicians and researchers."

Fiona Godlee, editor in chief, *The BMJ*

03

What worries parents when their preschool children are acutely ill, and why: a qualitative study, Joe Kai

Research, *BMJ* 1996;313:983

"This paper and a linked one (*BMJ* 1996;313:987) revealed the profound sense of responsibility that parents felt for their children and how deep seated their fears are of serious and even life threatening illness. From the day I read these papers, I understood that I needed to help the parent to leave the consultation with a greater sense of competence and control. These consultations became easier and the decision whether or not to prescribe antibiotics became much less central and much less contested."

Iona Heath, former president, Royal College of General Practitioners and former columnist for *The BMJ*

04

Making better use of research findings, Andrew Haines and Anna Donald

Analysis, *BMJ* 1998;317:72

"[This series] crystallised the debate about why were we spending so much money on generating research findings when there was little evidence it ever made its way into practice. I printed out that entire 1998 series, bound it, studied it and carried it with me for a long time." Lara Fairall, founding head of the knowledge translation unit at the University of Cape Town Lung Institute, South Africa

05

Unbiased, relevant, and reliable assessments in health care, Iain Chalmers

Editorial, *BMJ* 1998;317:1167-8)

"This editorial is Chalmers at his best. He argues, persuasively, about the advantages of randomisation in clinical trials and castigates the studies that, in the absence of reliable randomisation, have wasted both money and the goodwill of patients. And he looks ahead to the benefits of electronic publication."

Mike Rawlins, chair, Medicines and Healthcare Products Regulatory Agency, UK

06

Establishing a standard definition for child overweight and obesity worldwide: international survey, Tim J Cole, Mary C Bellizzi, Katherine M Flegal, William H Dietz

(Research, *BMJ* 2000;320:1240)

"Obesity is increasingly being seen as one of the major threats to public health globally. This paper has had an important role in defining obesity in children. Its impact is shown by the very large number of citations it has had."

Azeem Majeed, professor of primary care and head of the Department of Primary Care & Public Health, Imperial College London

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Do you have a favourite paper?

If so, submit a response to this article on thebmj.com and provide details of the paper and why it is memorable for you.

Also, find out about additional papers suggested by our 20 readers, authors, and former colleagues.

Alternatively, vote online for your favourite among the top six cited articles in our top 20.

07

Seeing what you want to see in randomised controlled trials: versions and perversions of UKPDS data, James McCormack and Trisha Greenhalgh

Education and Debate, *BMJ* 2000;320:1720

"[This paper] gave me the courage to question conventional wisdom in diabetes."

Richard Lehman, UK general practitioner and academic

08

Collusion in doctor-patient communication about imminent death: an ethnographic study, Anne-Mei The, Tony Hak, Gerard Koëter, Gerrit van der Wal

Research, *BMJ* 2000;321:1376

"This paper is an example of good qualitative research and the sorts of insights it can bring. It is a reminder that, despite all the effort that has (rightfully) gone into teaching communications skills and emphasising the importance of good communication with patients, human communication is a difficult business, full of emotions, evasions, and ambiguities."

Jane Smith, former deputy editor, *The BMJ*

09

The medical profession, the public, and the government, Chris Ham and K G M M Alberti

Education and Debate, *BMJ* 2002;324:838)

"This paper showed that from the start of the NHS there had been an implicit compact between the government, the medical profession, and the public, but that this had gradually become undermined over the years and needed to be updated. A tremendously prescient paper, it set out many of the challenges we have faced from that day to this and absolutely justifies re-reading."

David Haslam, chair, National Institute for Health and Care Excellence and former BMA president

10



What is a good doctor, and how can you make one? Brian Hurwitz and Alex Vass

Analysis, *BMJ* 2002;325:667

"Harold Shipman has arguably had more impact on doctoring in Britain than any other doctor in the past 20 years, and this article and the accompanying articles in the theme issue helped draw the positive out of a terrible experience."

Richard Smith, former editor, *The BMJ*

11

Effect of zinc supplementation started during diarrhoea on morbidity and mortality in Bangladeshi children: community randomised trial, Abdullah H Baqui, Robert E Black, Shams El Arifeen, et al

Research, *BMJ* 2002;325:1059)

"This paper had a special influence on global policy and practice for the treatment of diarrhoea; it highlighted the benefits of zinc supplementation

for diarrhoea in community settings, established the feasibility of training community health workers to deliver a simplified intervention and set the ground for future packaging of commodities. Finally, it demonstrated that appropriate diarrhoea management could reduce inappropriate prescribing of antibiotics."

Zulfiqar Bhutta, Robert Harding chair in global child health and policy, Center for Global Child Health, Hospital for Sick Children, Toronto, Ontario, Canada

12



Effects of euthanasia on the bereaved family and friends: a cross sectional study, Nikkie B Swarte, Marije L van der Lee, Johanna G van der Bom, et al

Research, *BMJ* 2003;327:189

"This study compared the grief reactions of family members whose loved one died by euthanasia with those of people whose loved ones died naturally. Bereaved families of cancer patients who died by euthanasia coped much better

in the immediate and longer term, including experiencing much less traumatic grief. This was a simple cross sectional study and it affirmed a simple truth—the value of talking openly about death."

Jocelyn Clark, executive editor at icddr, Dhaka, Bangladesh and adjunct assistant professor of medicine, University of Toronto, Canada

THE BMJ.COM POLL

Which paper should *The BMJ* be most proud of publishing? Choose from the top six most cited

Establishing a standard definition for child obesity
Multiple imputation for missing data in epidemiological and clinical research

The scandal of poor medical research

Evidence based guidelines or collectively constructed "mindlines?"

Zinc supplementation started during diarrhoea on morbidity and mortality in Bangladeshi children

What worries parents when their preschool children are acutely ill

13



Evidence based guidelines or collectively constructed "mindlines?" Ethnographic study of knowledge management in primary care, John Gabbay and Andr  e le May

Research, *BMJ* 2004;329:1013

"When I was asked to review this paper I realised it was a landmark revision of the theoretical foundations of how clinicians think, how they make decisions, and how they share knowledge. Doctors don't follow guidelines because they grow mindlines

(collectively shared tacit guidelines). There have been over 300 papers published on mindlines since this landmark paper."

Trisha Greenhalgh, UK general practitioner and professor of primary healthcare

14

Improving women's experience during speculum examinations at routine gynaecological visits: randomised clinical trial, Dean A Seehusen, Dawn R Johnson, J Scott Earwood, et al

Research, *BMJ* 2006;333:171

"This simple study is a great example of practical, patient oriented research. While (at least in the US) tradition has always taught that one "must" use stirrups to get an adequate pelvic exam for cervical cancer screening (or other reasons for a pelvic examination), this study demonstrates not only that a simpler examination works equally well, but a simpler way of doing a pelvic exam leads to a better patient experience."

Bill Cayley, family doctor and professor of family medicine, University of Wisconsin, USA

15

Multiple imputation for missing data in epidemiological and clinical research: potential and pitfalls, Jonathan A C Sterne, Ian R White, John B Carlin, et al

Research Methods and Reporting, *BMJ* 2009;338:b2393

"Missing data are a problem encountered in almost all studies—trials and observational studies—yet the issue has been neglected until relatively recently. This authoritative paper provides a very readable explanation of the problems associated with missing data and a non-technical explanation of methods to deal with missing data. It's a great example of how to present a complex methodological issue when addressing non-methodological readers."

Doug Altman, director, Centre for Statistics in Medicine, Oxford, UK

16



How the case against the MMR vaccine was fixed, Brian Deer

Feature, *BMJ* 2011;342:c5347

"I think the investigation into the Andrew Wakefield story... was brave, necessary, and hugely influential."

Jane Dacre, president, Royal College of Physicians

17

Improving cardiovascular health at population level: 39 community cluster randomised trial of Cardiovascular Health Awareness Program (CHAP), Janusz Kaczorowski, Larry W Chambers, Lisa Dolovich, et al

Research, *BMJ* 2011;342:d442

"This article will have enormous influence over the coming years because it tests, with positive, patient important results, an intervention aimed at harnessing 'volunteer power' in the community."

Brian Haynes, professor of clinical epidemiology and medicine, McMaster University Faculty of Health Sciences, Canada

18

Why corporate power is a public health priority, Gerard Hastings

Analysis, *BMJ* 2012;345:e5124

"Hastings has given us a conceptual—easy to grasp—notion of commercial determinants of health that is now gaining increasing recognition. We can now complement the social

determinants of health with the political and the commercial determinants of health to gain an understanding of the interface of factors that drive health in the 21st century."

Ilona Kickbusch, director of the global health programme, Graduate Institute of International and Development Studies, Geneva, Switzerland

19

Corruption ruins the doctor-patient relationship in India, David Berger

Views and Reviews, *BMJ*

2014;348:g3169

"David Berger's article triggered an explosion of medical corruption stories in the Indian media, and led to questions in parliament. My hospital has set up a committee for ethical practice, and in two major elections the anticorruption parties have won decisive majorities. There is a feeling now that something, at last, will be done."

Samiran Nundy, dean, Ganga Ram Institute for Postgraduate Medical Education and Research, India

20

The epidemic of pre-diabetes: the medicine and the politics, John S Yudkin and Victor M Montori

Analysis, *BMJ* 2014;349:g4485

"This article really put 'too much medicine' on the map for me, and for many people I think, not only because of the huge numbers ('over half of Chinese adults having pre-diabetes, a national burden of 493 million, for example') but also because of the elegance of the prose."

Muir Gray, senior NHS expert in screening, public health, and IT

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The six papers with the highest citations in Web of Science, which counts the number of times an article is cited in the leading journals and in conference proceedings, are the subject of an online poll, running from 6 July 2015 on *The BMJ* website

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