

Health research publications from South Africa in the last 20 years: a bibliometric analysis.

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Objectives: To assess the trend and factors associated with health research publications from South Africa in the last two decades.

Study design: Bibliometric analysis.

Method and analysis: In July 2016, we searched the Scopus electronic database for articles indexed between 01 January 1996 and 31 December 2015 with co-authors from South African institutions. We sought data on potential determinants of research publications from Statistics South Africa and World Bank Data. We used Poisson regression to examine trends in health research publications and negative binomial regression to explore factors associated with publications.

Results: We identified 51,133 publications, with a mean of 2,557 publications per year. Four institutions (University of Cape Town, University of Witwatersrand, Stellenbosch University, and University of Pretoria) contributed 53.14% of the publications. The top five journals where the articles were published were the South African Medical Journal (14.57%), PLoS ONE (5.77%), South African Family Practice (4.68%), Journal of the South African Veterinary Association (2.48%), and The Lancet (2.37%). The number of publications per year increased from 1,133 in

1996 to 5,820 in 2016 (relative growth 124.17%). The number of publications increased by 9.40% per year, 95% confidence interval (CI) 9.30% to 9.60%. In univariable analyses, health research publications were significantly associated with gross domestic product (incidence rate ratio [IRR] 1.00, 95% CI 1.00 to 1.01), total expenditure on health (IRR 1.14, 95%CI 1.10 to 1.18), private expenditure on health (IRR 0.91, 95%CI 0.90 to 0.93), and year of publication (IRR 1.09, 95%CI 1.08 to 1.10); all $p < 0.001$. Of these factors, only the private expenditure on health (IRR 1.08, 95%CI 1.05 to 1.10; $p < 0.001$) and the year of publication (IRR 1.16, 95%CI 1.14 to 1.18; $p < 0.001$) were independently associated with number of publications in the multivariate analysis.

Conclusion: The number of health research publications in South Africa has risen significantly from 1996 to 2015, with some institutions already having strong research performance. While making prudent decisions concerning research funding and setting priorities in assigning resources, relevant decision makers in South Africa should give more attention to institutions where the number of research publications is relatively low.