

research



Risk of breast cancer after screen detected DCIS
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How common is psoriasis?
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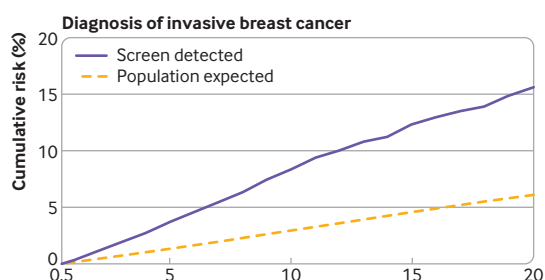
ORIGINAL RESEARCH Population based observational cohort study

Invasive breast cancer and breast cancer mortality after ductal carcinoma in situ in women attending for breast screening in England, 1988-2014

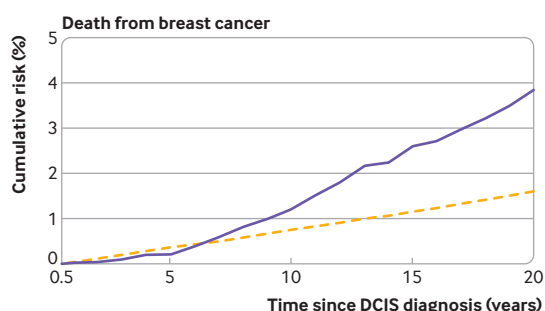
Mannu GS, Wang Z, Broggio J, et al

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No of cases*	155	192	167	77
No at risk†	4222	3930	3577	3191



No of deaths*	9	41	58	28
No at risk†	4222	4070	3856	3559

Cumulative risk of invasive breast cancer and of death from breast cancer in women with ductal carcinoma in situ (DCIS) detected at screening, 1988-99. Cumulative risks take into account competing risks from causes of death other than breast cancer.

*Number of invasive breast cancers/deaths from breast cancer during interval. †Number of women at risk of invasive breast cancer/death from breast cancer at start of interval

Study question What are the long term risks of invasive breast cancer and death from breast cancer after ductal carcinoma in situ (DCIS) diagnosed through breast screening?

Methods This cohort study included all 35 024 women in England diagnosed as having DCIS by the NHS Breast Screening Programme from its start in 1988 until 2014. Rates of invasive breast cancer and death from breast cancer in these women were compared with the corresponding national rates for women of the same age in the same calendar year.

Study answer and limitations By December 2014, 2076 women had developed invasive breast cancer, an incidence rate of 8.82 (95% confidence interval 8.45 to 9.21) per 1000 per year and more than double the number expected from national rates (ratio of observed to expected rates 2.52, 2.41 to 2.63). In the same cohort, 310 women died from breast cancer, a death rate of 1.26 (1.13 to 1.41) per 1000 per year and 70% more than expected (ratio 1.70, 1.52 to 1.90). For both invasive breast cancer and death from breast cancer, the increases continued for at least two decades. Recurrent DCIS was not considered.

What this study adds Women with DCIS detected by screening have, on average, experienced higher long term risks of invasive breast cancer and of death from breast cancer than women in the general population during a period of at least two decades after diagnosis. More intensive treatment and larger final surgical margins were associated with lower risks of invasive breast cancer.

Funding, competing interests, and data sharing Funding was from Cancer Research UK, National Institute for Health Research Biomedical Research Centre, and UK Medical Research Council. The authors have no competing interests. Depersonalised study data may be available to accredited researchers.

Industry ties within US medical societies

ORIGINAL RESEARCH Cross sectional study

Financial ties between leaders of influential US professional medical associations and industry

Moynihan R, Albarqouni L, Nangla C, Dunn AG, Lexchin J, Bero L

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Study question What is the nature and extent of financial ties between leaders of influential professional medical associations in the United States and pharmaceutical and device companies?

Methods This cross sectional study used data from the US Agency for Healthcare Quality and Research to identify the 10 costliest disease areas. Professional medical associations were selected on the basis of recommendations from three US based expert peers for each of the 10 diseases. Leaders, such as board members, were identified for three years (2017-19). Using the US government's Open Payments database, the nature and extent of leaders' financial relationships with pharmaceutical and device companies were identified, using data

from the year of board membership, the four previous years, and the subsequent year.

Study answer and limitations 235 of 328 leaders (72%) had financial relationships to pharmaceutical and device companies. Among US based leaders who were medical doctors, 235 of 293 (80%) had these financial ties. Total payments to leaders during 2017-19 were \$130m (£103m; €119m), with a median amount for each leader of \$31 805 (interquartile range \$1157 to \$254 272). Payments to leaders showed wide variation among the associations: median amounts ranged from \$212 for the American Psychiatric Association to \$518 000 for the American Society of Clinical Oncology. A key limitation is that total amounts are underestimates, because for some leaders in specific years, data from Open Payments were not yet available.

What this study adds Payments from industry to leaders of 10 influential US professional medical associations are extensive, with wide variation among the associations. Moving to independence from commercial interests is feasible and desirable and will be relatively easy for some associations.

COMMENTARY New data shed sunlight on how to create doctors' organisations that we can trust

The Sunshine Act was passed as a part of the Affordable Care Act in 2010 in the hopes of shedding light on relationships between physicians and industry in the US.¹ This enactment resulted in the creation of the Open Payments database, which reports the financial benefits paid to physicians from April 2013.² These data have resulted in numerous studies evaluating financial ties of individual physicians,^{3,4} those of guideline authors,⁵⁻⁷ and those of doctors conducting randomised controlled trials^{8,9}—ties that could unduly influence medical practice and research. Until now, however, we have lacked information on the extent of financial conflicts of interest among leaders of national medical associations and societies.

In this issue, Moynihan and colleagues report a cross sectional study of the industry relationships held by the leaders of professional medical associations and societies active across the top 10 costliest disease areas in the US.¹⁰

This latest analysis of data from the Open Payments database found that 80% of the selected US based physician leaders had financial ties to industry. For the 235 leaders with industry ties, the median total payment during the study time frame was \$31 805 (£25 450; €28 960). Variation among the associations was considerable, however: median amounts varied from \$212 for leaders of the American Psychiatric Association to \$518 000 for the American Society of Clinical Oncology.

Follow the money

The percentage of leaders with industry ties also varied from 37% (American

Associations should alter their recruitment to yield diverse groups of leaders largely free from financial conflicts of interest

Psychiatric Association) to 93% (Orthopaedic Trauma Association and the Infectious Diseases Society of America). The types of payments received by these physicians differed noticeably by specialty. For example, general payments, including consultancies and hospitality, were received to the greatest extent by leaders of the North American Spine Society (general: \$9 503 666, research: \$1 033 607) and the Orthopaedic Trauma Association (general: \$4 736 517, research: \$286 572). In contrast, research payments were received to the greatest extent by the American Society of Clinical Oncology (research: \$54 117 136, general: \$1 464 771) and the American College of Cardiology

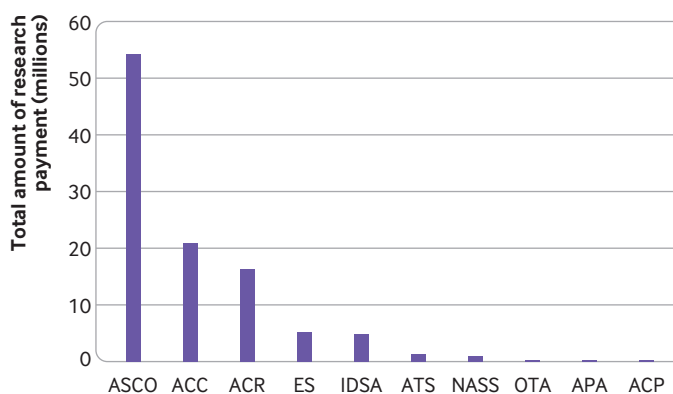
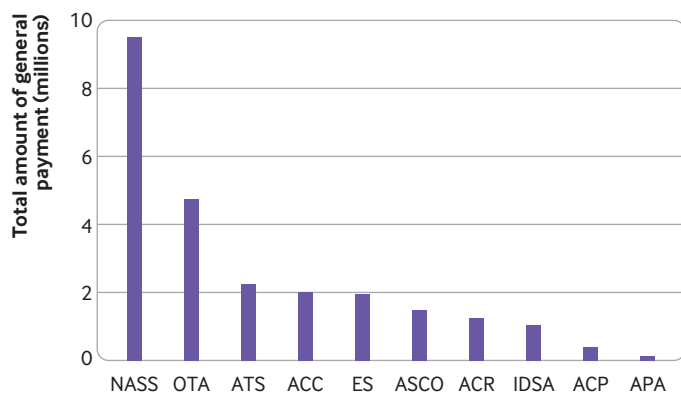
(research: \$20 955 022, general: \$2 019 702).

These findings suggest that tackling financial conflicts of interest in medicine cannot rely on a “cookie cutter” approach for all specialties and associations. For example, oncologists' ties with industry for research payments and orthopaedic surgeons' for general payments present unique challenges that might not be overcome with blanket policies and regulations.

We propose five actions. Firstly, each association must take the initiative to evaluate its conflicts using Open Payments. Secondly, associations should alter their recruitment processes to yield balanced and diverse groups of physician leaders largely free from financial conflicts of interest. Thirdly, we call for the creation of standards for promoting medical associations that are free from financial conflicts of interest, similar to the framework within the Institute of Medicine's

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General and research payments to leaders of 10 professional medical associations. General payments include for consultancies, travel, food, beverages, and royalties. IDSA=Infectious Diseases Society of America; OTA=Orthopaedic Trauma Association; ACC=American College of Cardiology; ACR=American College of Rheumatology; ASCO=American Society of Clinical Oncology; NASS=North American Spine Society; ATS=American Thoracic Society; ES=Endocrine Society; ACP=American College of Physicians; APA=American Psychiatric Association

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standards for producing clinical practice guidelines we can trust.¹¹

Fourthly, greater reliance on the Sunshine Act and Open Payments in the US (and elsewhere for countries with similar data) could eliminate the need for the traditional

“honour system” of financial self-disclosure, which is ineffective and inaccurate at best.⁵⁻¹³ Fifthly, we propose that all medical associations, guidelines groups, and policy makers provide links from their documents and websites to Open Payments data for each

US based physician contributor. Such links would make it easier for anyone, including patients, to evaluate any risk of bias.

These steps could mitigate or even eliminate the overwhelming presence of financial conflicts of interest among medical societies and

associations. This would protect these groups from producing biased documents or policies, which in turn would protect all physicians and the patients they treat.

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National, regional, and worldwide epidemiology of psoriasis

Parisi R, Iskandar IYK, Kontopantelis E, Augustin M, Griffiths CEM, Ashcroft DM; on behalf of the Global Psoriasis Atlas

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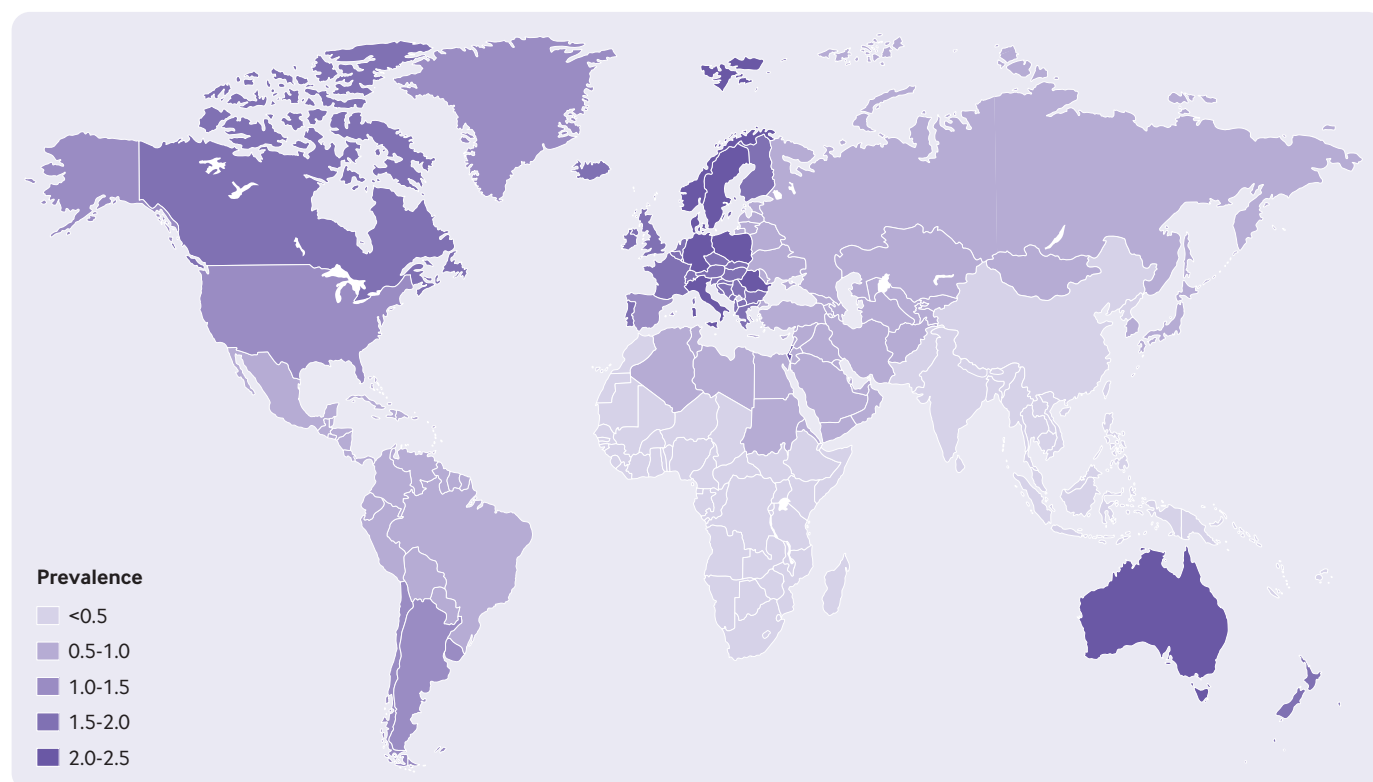
Study question What is the incidence of psoriasis and what are the global, regional, and country specific estimates of its prevalence?

Methods A systematic analysis of studies reporting the incidence or prevalence of psoriasis in the general population. 11 databases were searched (Medline, Embase, Web of Science, SciELO, Korean Journal Databases, Russian Science Citation Index, WPRIM, SaudiMedLit, Informit, IndMed, and HERDIN) from their inception dates to October 2019. Incidence data were summarised descriptively and bayesian hierarchical models were fitted to estimate the global, regional, and country specific prevalence of psoriasis.

Study answer and limitations 41 164 records were identified and 168 studies met the inclusion criteria. The incidence of psoriasis in adults varied from 30.3 per 100 000 person years (95% confidence interval 26.6 to 34.1) in Taiwan to 321.0 per 100 000 person years in Italy. The prevalence of the disease was highest in high income regions, such as Australasia (1.99%, 95% uncertainty interval 0.64% to 6.60%), western Europe (1.92%, 1.07% to 3.46%), central Europe (1.83%, 0.62% to 5.32%), and North America (1.50%, 0.63% to 3.60%). However, many low and middle income countries lacked data, and the approach used to group countries might have influenced the income related patterns highlighted in the findings.

What this study adds Epidemiological data on the incidence of psoriasis were limited, with most studies conducted in Europe and North America. Psoriasis is a common disease that mainly affects the adult population. The disease is unequally distributed across geographical regions, but is more frequent in high income countries and in regions with older populations.

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Lifetime (physician or dermatologist diagnosed) prevalence of psoriasis in adults by country. Details about countries with observed or extrapolated data are given in the full paper on bmj.com. Publisher's note: Published maps are provided without any warranty of any kind, either express or implied. BMJ remains neutral with regard to jurisdictional claims in published maps

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