

TRENDS IN ARTHRITIS AND RELATED CONDITIONS RESEARCH: THE PAST, PRESENT AND HOW TO INFLUENCE THE FUTURE

Overview

Versus Arthritis is a leading funder of arthritis and related conditions research in the UK. In this blog we examine key findings and highlights from an in-depth analysis of UK health research data, featuring sector-wide funding reduction for arthritis research from 2014 to 2018, a significant mismatch between research funding vs. arthritis burden, and how unbalanced the types of research are funded for arthritis.

Background

Established in 2004, the **UK Clinical Research Collaboration (UKCRC)** aims to maintain the UK's status as a world leader in health research by bringing together the main stakeholders in the sector. Every four years, the **UKCRC's Health Research Analysis Forum (HRAF)** analyses the landscape of health research in the UK, with the **Medical Research Council (MRC)** leading on cross-sector collection of research grant information on behalf of UKCRC.

The latest data collated by MRC was released in January 2020¹ and reveals how health research funding made by the public and charity funders has changed in the last four years (from 2014 to 2018). The number of funders joining data-sharing with HRAF analysis has nearly doubled (from 64 in 2014 to 123 in 2018), and total research funding in the HRAF dataset is now worth £2.56 billion compared to £2.03 billion in 2014.

Using the data sets for 2014 and 2018, the Research Evaluation Team at Versus Arthritis has conducted an in-depth analysis to understand the current landscape of arthritis research.

Key Messages: Highlighted Trends for Arthritis Research

Arthritis research funding has decreased since 2014

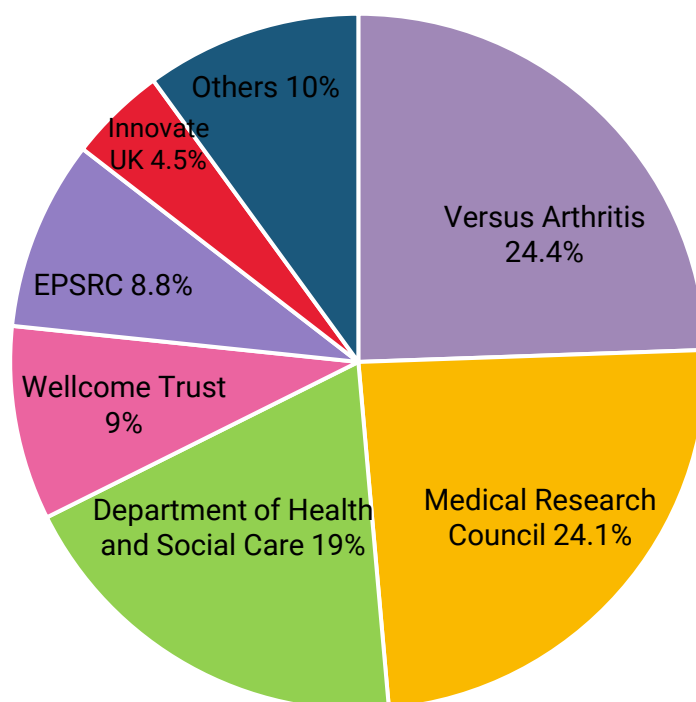
While overall funding across all disease areas has increased by 7.3% in the UK over the last four years (GDP inflation considered), funding for arthritis research has decreased. Total funding allocated to arthritis research has fallen from 4.5% (£92 million out of £2.03 billion) in 2014, to 3.4% (£88 million out of £2.56 billion) in 2018.



¹ UK Health Research Analysis 2018 (UK Clinical Research Collaboration, 2020) ISBN 978-0-903730-29-7

Versus Arthritis is the biggest funder of arthritis research

Versus Arthritis overtook the Medical Research Council (MRC) to become the biggest funder of arthritis research in 2018, contributing approximately **24%** of all funding for arthritis research. The current arthritis research funding landscape is driven by the following six funders, each contributes at least 4% of the overall funding and together account for about 90% of the overall funding: Versus Arthritis, Medical Research Council, the Wellcome Trust, Department of Health and Social Care, Engineering and Physical Sciences Research Council and Innovate UK.



Arthritis funding does not match the burden of the disease

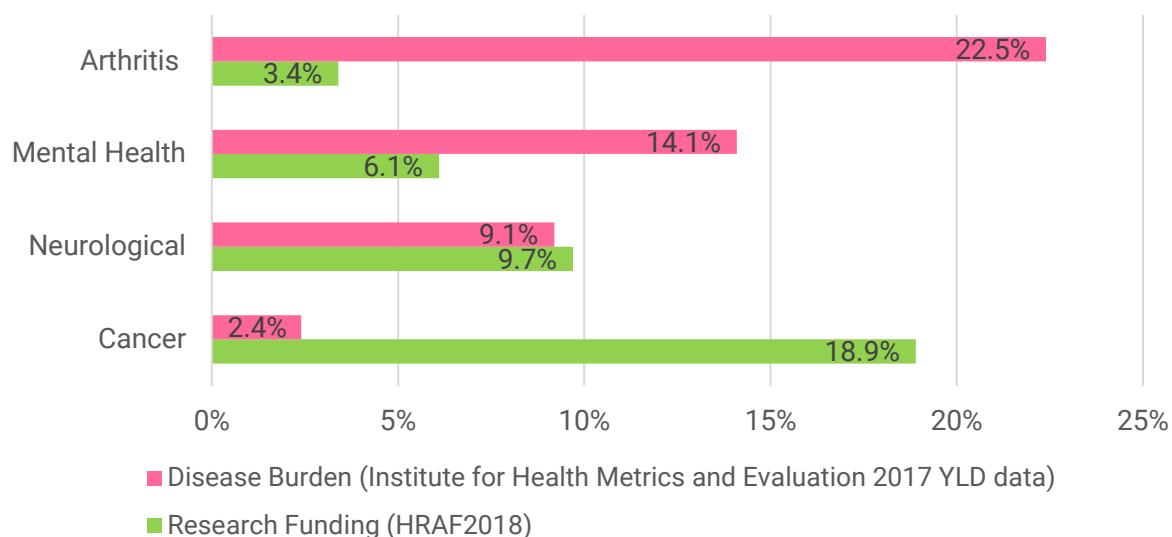
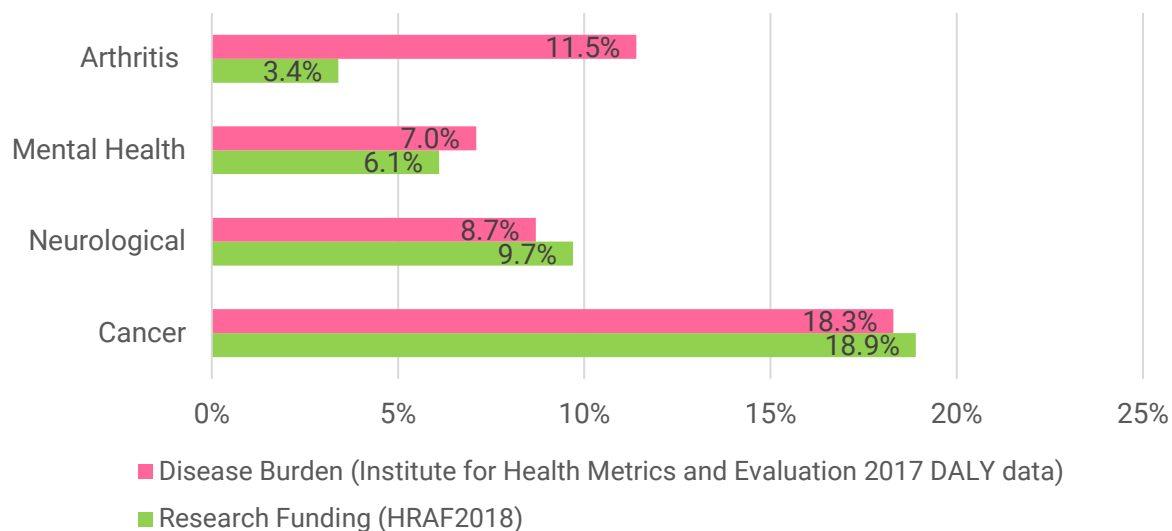
Arthritis is in the **top 5** diseases with the highest burden in the UK according to its Disability-Adjusted Loss of Years (DALY) score, which is the sum of how many years of healthy life arthritis can steal from people due to premature death or disability. In the UK, 11.4% of productive years lost are due to arthritis conditions², however arthritis receives just 3.4% of total health research funding. The mismatch between research funding and disease burden for arthritis is further magnified if we focus on Years Lost Due to Disability (YLD) score, where arthritis accounts for 22.4% of the lost in the UK².

By comparing arthritis to the other high-burden diseases in the UK, arthritis has the greatest mismatch between funding and disease burden. The mismatch for arthritis requires urgent attention as there are increasing amounts of evidence showing that arthritis is now a major health issue for the global population affecting about 1 in 3 people worldwide³ and arthritis burden is likely to keep rising as we

² Global Health Data Exchange, Institute for Health Metrics and Evaluation. <http://ghdx.healthdata.org/gbd-results-tool>

³ Bulletin of the WHO: Reducing the global burden of MSK conditions. Briggs. 2018. <https://www.who.int/bulletin/volumes/96/5/17-204891/en/>

see people are living longer, but they are also living longer with chronic, non-communicable diseases commonly include arthritis and related conditions.^{4,5[66]}



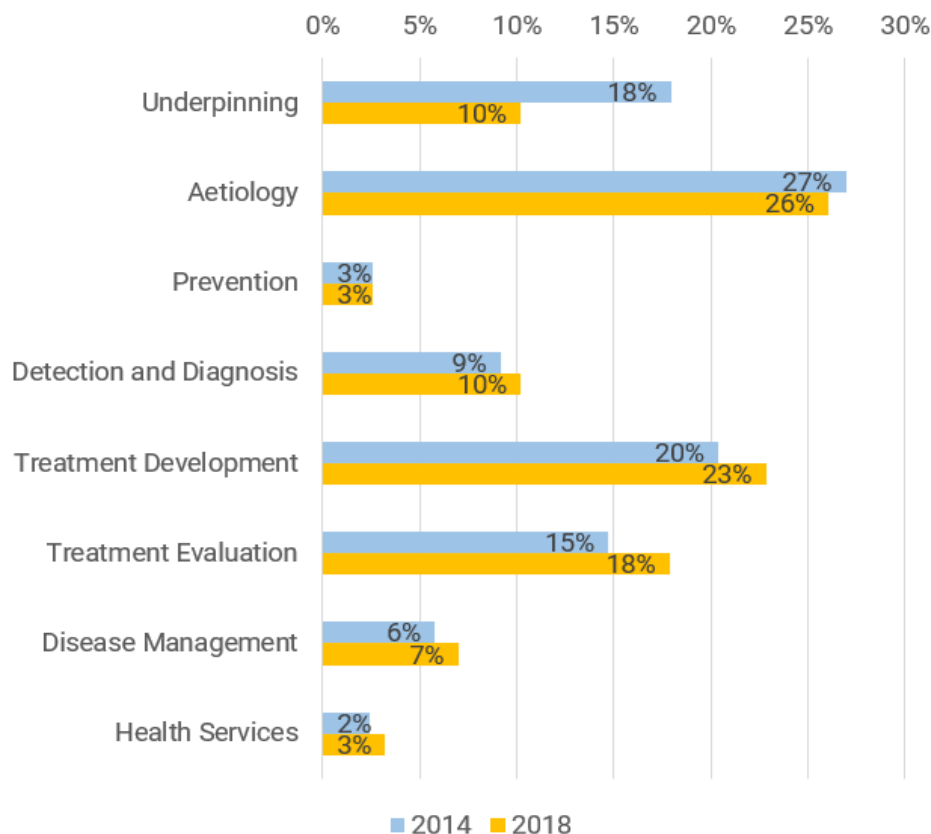
The type of arthritis research being funded is unbalanced

In 2014, approximately 45% of arthritis research funding was spent in understanding the underlying mechanisms that cause arthritis (indicated as ‘underpinning’ and ‘aetiology’ in the graph below). This percentage fell to 36% in 2018 as a result of more funding being spent on improving prevention, diagnosis, treatment and health management. The shift of funding towards applicable and translational studies increases the balance of funding across all the research types; however funding is still skewed and there are areas that remain significantly under-funded: such as research looking into prevention, disease management and health services.

⁴ The world-wide burden of musculoskeletal diseases: a systematic analysis of the World Health Organization Burden of Diseases Database. Ann Rheum Dis. 2019 Jun;78(6):844-848. doi: 10.1136/annrheumdis-2019-215142.

⁵ The Burden of Disease in England compared with 22 peer countries. A report for NHS England. Public Health England. 17th Jan 2020.

Trends in arthritis and related conditions research



Versus Arthritis is taking up a lead role in making positive changes for people with arthritis

Given the current downward trajectory of research funding as a whole, one recent report estimates life sciences will remain under-funded for £1.3bn by 2027, while about three out of four medical research charities anticipate a reduced income of **25%** or more due to the COVID situation.⁶

Hence, supporting a broad and balanced research repertoire with sustainable funding is key for improving the quality of life of people living with arthritis and related conditions. This data has helped us to understand the current landscape of arthritis research in the UK and confirmed our commitment in our research ambition to exploring the many ways in which we can support and enable people with arthritis.

As a leading funder in arthritis research, Versus Arthritis will continue to work hard to ensure that arthritis research is supported by sustainable funding that is parallel to its growing burden in the years to come.

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⁶ Thomas C and Nanda S (2020) The science-based economy: The role of health research, IPPR.