Versus Arthritis representation to the Comprehensive Spending Review 2020
September 2020

1. Versus Arthritis welcomes the opportunity to provide input into the Comprehensive Spending Review 2020.[1]

2. Versus Arthritis is the charity formed by Arthritis Research UK and Arthritis Care joining together. We work alongside volunteers, healthcare professionals, researchers and friends to do everything we can to push back against arthritis. Together, we develop breakthrough treatments, campaign for arthritis to be a priority and provide support. Our remit covers all musculoskeletal conditions which affect the joints, bones and muscles including osteoarthritis, rheumatoid arthritis, back pain and osteoporosis.[2]

3. Musculoskeletal conditions affect 18.8 million people in the UK and are the single biggest cause of pain and disability in the UK.[3] Cumulatively, the healthcare costs of osteoarthritis and rheumatoid arthritis will reach £118.6 billion over the next decade.[4] Musculoskeletal conditions account for a fifth of all sickness absence and result in the loss of around 28.2 million working days to the UK economy each year.[5]

4. This representation focuses on the following areas of budget which are important to people with arthritis and related musculoskeletal conditions:
   - **Healthcare services:** improving outcomes for people with musculoskeletal conditions through **treatment, prevention, care and support**.
   - **Employment:** enabling people with musculoskeletal conditions to be in work and recognising the negative impact of musculoskeletal conditions on individuals and on the economy.
   - **Cutting-edge research:** supporting the economy through a vibrant science sector and addressing musculoskeletal conditions through long-term investment in research.

5. **Summary points:**

Health services (treatment):

1. NHS investment must support provisions in the Long-Term Plan to improve the quality of healthcare services and outcomes for people with musculoskeletal conditions.
2. NHS investment must support Trusts to restore elective care activity in the short term, but a long-term sustainable solution is also needed to address the current and projected demand for joint replacement surgery.

Prevention (Public health):

3. Recognising and tackling the impact of health inequalities is key and therefore any additional spending on health protection must not come at the expense of cuts in funding for health improvement. The Spending Review must reverse the real term cuts in the public health grant and place it on long-term sustainable footing for the future.
4. The Government should increase the funding provided to local authorities, in order to ensure the improved NHS Health Check offer, including content on musculoskeletal conditions, can be delivered. The government should also consider ring-fencing the funding provided for the

Health Check, so the recommendations of the current review can be consistently implemented across all local authorities.

Care and support (social care):

5. The Government should expand the funding for community equipment to ensure people with disabilities have access to the support they are entitled to, regardless of where they live.
6. The Government should increase funding for the Disabled Facilities Grant to meet rising need for home adaptations and ensure more people can live safely, independently and well in their own homes.
7. Proposals for a long-term sustainable funding solution, necessary to unlock a fairer, high quality social care system, must urgently be brought forward for consultation. Any long-term funding mechanism should share the risk of social care costs across society and ensure that the system can meet increased future demand.

Employment:

8. Versus Arthritis welcomes the Government's commitment to reduce the disability employment gap by delivering an increase of one million people with disabilities in work between 2017 and 2027. To achieve this, structured programmes of support need to be properly funded so that people who acquire or already have a musculoskeletal condition are able to enter and stay in the workforce.

Cutting-edge research:

9. We ask the Government to support the proposed Life Sciences-Charity Partnership Fund to help protect the contribution charities can make to the Government's vision for UK R&D as independent, strategic funders of high-quality science and innovation.
10. Versus Arthritis welcomes the Government's stated commitment to increase public R&D investment to £22 billion per year by 2024-25 and asks that the Government continues to prioritise R&D investment as a central pillar of the UK's post-COVID economy.
11. The National Institute for Health Research (NIHR) should be adequately resourced to deliver the commitments around research and innovation as set out in the NHS Long Term Plan.
12. The Government must ensure a balanced combination of funding strategies to support basic discovery science, incremental, progressive R&D and high risk, high return R&D through a variety of funding mechanisms offering both responsive and challenge-led funding.[6]
13. As part of its comprehensive R&D plan and focus on research sustainability brought about by COVID-19, we ask that the Government commit to an increase in the Charity Research Support Fund (CRSF) to keep pace with levels of charity R&D investment and to protect the unique partnerships between universities and charities.

HEALTHCARE SERVICES: improving outcomes for people with musculoskeletal conditions through treatment, prevention, care and support.

6. **Implementation of the Long Term Plan for the NHS:** Versus Arthritis welcomed specific references to musculoskeletal conditions in the NHS Long-Term Plan, including that low back and neck pain is the greatest cause of years lost to disability in the UK.[7] Specifically, the NHS Long Term Plan included commitments to expand direct access to Musculoskeletal First Contact Practitioners, increase the physiotherapy workforce in primary care and increase delivery of the ESCAPE-pain programme. The Long-Term Plan also included support for personalised care and

mental health provision for people with musculoskeletal conditions through greater investment in primary and community care, as well as expanding access to Improving Access to Psychological Therapies (IAPT).

7. In the Phase 3 letter to NHS Trusts on recovery from COVID-19, NHS England called for IAPT services to be fully resumed, and that systems would be asked to validate their existing LTP mental health service expansion trajectories for 2020-21. It is important that this expansion includes access to IAPT services for people with long-term conditions including arthritis. We also support the Chartered Society of Physiotherapy's recommendation[8] about increasing the use of First Contact Physiotherapists with advanced practice skills who can support musculoskeletal related GP appointments, including assessing, diagnosing, ordering and analysing tests and triage for orthopaedics.

8. NHS England is currently working on shared decision making tools for people waiting for surgery, which will help implement its commitment to expand shared decision making as part of the Universal Personalised Care Plan.[9] It is important that Trusts are given the resource to roll out these resources to support patients in making informed decisions about whether to proceed with planned care.

NHS investment must support provisions in the Long-Term Plan to improve the quality of healthcare services and outcomes for people with musculoskeletal conditions.

9. **Elective surgery:** In the context of all elective surgery, hip and knee replacements are respectively the 2nd and 3rd most common operations taking place in the NHS.[10] The National Joint Registry's 16th Annual Report in 2019 showed that there were 106,116 hip replacement procedures and 109,540 knee replacement procedures in 2018.[11] Osteoarthritis was the primary cause of 90% and 98% of primary hip and knee replacements respectively in England, Wales and Northern Ireland in 2018.[12]

10. The cancellation of planned care across NHS services due to the pandemic has had a significant impact on people with arthritis. Writing to NHS providers on 17 March 2020, NHS-E-I asked that all routine surgery be postponed from 15th April for at least three months.[13] Early surveys taken during the COVID-19 pandemic showed that arthritis was one of the highest ranking conditions for patients who had seen treatments cancelled by the NHS (68%).[14]

11. Latest figures for June 2020 show that the numbers of people waiting more than 52 weeks for Trauma and Orthopaedic Surgery (including joint replacements) were the highest among all specialties for elective care. The increased length of waiting lists impacts on people with arthritis waiting for treatment. In 2019, a survey carried out by YouGov (on behalf of Versus Arthritis) showed that of 1,009 English adults diagnosed with osteoarthritis, half (49%) said their physical health deteriorated and one third (33%) said their mental health deteriorated while they were waiting for joint replacement surgery.[15]

12. Hip and knee replacement surgery are both clinically and cost effective and can often restore mobility and independence. Analysis[16] has demonstrated that on average, primary total knee replacement and five years of subsequent care costs £5,623 per quality-adjusted life year (QALY) gained, well-below the NHS' current standard threshold of £20,000-£30,000 per QALY.[17]

13. NHS Trusts have recently been given targets by NHS England to restore elective care activity to 90% of the previous year's level by October 2020.[18]. Reducing the backlog for elective surgery will require support for Trusts in areas crucial to re-starting surgery, as identified by the Royal College of Surgeons in June 2020.[19] This includes the availability of COVID-light sites, access to independent sector facilities, speed of test results for COVID-19, and sufficient levels of PPE equipment to undertake surgery.

14. In the longer term, there will be a need for investment to ensure that the waiting lists for joint replacement surgery (that were at high levels before the COVID-19 pandemic) can be reduced further. In May 2020, the Health Foundation estimated that the total direct cost of meeting existing targets of treating 92% of patients within 18 weeks would be £5.2 - £6.8 billion, including the elimination of the backlog for surgery by the end of March 2024.[20]

NHS investment must support Trusts to restore elective care activity in the short term, but a long-term sustainable solution is also needed to address the current and projected demand for joint replacement surgery.

15. Public Health: Public health approaches, particularly physical activity programmes and weight management services, are essential to support people to achieve and maintain good musculoskeletal health. They can also reduce demand on healthcare services, and support people to remain in work by preventing further disability in people with musculoskeletal conditions.

16. Furthermore, the communities hit hardest by COVID-19 are those who were already in poor health. The pandemic has demonstrated the importance of proactive prevention and health improvement measures in minimising the burden of noncommunicable diseases, that are still, and will remain, the main cause of preventable death and disability in the UK.

17. In late 2018, the Health Foundation published a report, which highlighted how the core public health grant had reached £2.9 billion in 2014/15 (in real terms), before beginning to fall in successive years to a low of £2.3 billion in 2019/2020.[21] Further analysis has indicated that local authority areas with the highest levels of deprivation have seen the largest reductions; absolute cuts in spending on public health services in the most deprived places have been six times larger than in the least deprived. Furthermore, an extra £0.9 billion a year is required to reverse cuts, and over £2bn is needed to invest in the most deprived areas, where need is highest.[22]

18. In August 2020, the government announced that Public Health England (PHE) will be replaced by a National Institute for Health Protection, and that the Department of Health and Social Care will be considering the future structure and delivery of health improvement, prevention and other PHE functions.

Any additional spending on health protection must not come at the expense of cuts in funding for health improvement. The Spending Review must reverse the real term cuts in the public health grant and place it on long-term sustainable footing for the future.

The Department of Health and Social Care should consult extensively with stakeholders from across the sector to understand how a new system of prevention and health

improvement can deliver the greatest value to people's health and wellbeing, and tackle health inequalities.

19. Versus Arthritis welcomed the recognition of musculoskeletal conditions as the greatest cause of total years lived with disability in England in last year's 'Advancing our health: prevention in the 2020s' consultation, along with the commitments to improve musculoskeletal health that were set out in PHE's 'Musculoskeletal health: 5 Year Prevention Strategic Framework'.[23]

Existing commitments made by the government on prevention and health improvement must not be forgotten during the reconfiguration of public health services. Actions set out in the consultation and the strategic framework must be fully resourced to ensure promotion of good musculoskeletal health. Commitments to develop new tools for employers to better support people with musculoskeletal conditions in the workplace must also be met, and appropriately resourced.

20. **NHS Health Check review:** Versus Arthritis supports the Government's efforts to review how the current NHS Health Check can be improved, through expanding the range of conditions included in the Health Check and by driving uptake.

21. Economic modelling carried out by Public Health England in 2013, found that the estimated savings to the NHS budget delivered by the NHS Health Check nationally are around £57 million over four years, rising to £176 million over a fifteen-year period.[24]

22. Musculoskeletal conditions account for the third largest area of direct NHS spend, about £5 billion each year.[25] It is well established that early intervention measures that help manage musculoskeletal problems by targeting key modifiable risk factors are cost effective, through preventing further disability and delivering savings in long-term healthcare costs.[26,27,28] For example, by the government's own estimates, for every £1 invested in the "STarT Back" personalised care tool for back pain, £226 is saved in healthcare, quality of life and productivity gains.[29]

Any expansion of the NHS Health Check should prioritise the inclusion of musculoskeletal conditions, in order to provide a robust pathway for the identification of musculoskeletal issues and, as a result, aid improvement of people's musculoskeletal health and deliver savings for the NHS and the wider health system.

23. Despite the government's commitment to make the 2020s the "decade of prevention" [30], the net expenditure on delivering the NHS Health Check programme, has fallen every year since 2013.[31]

The Government should increase the funding provided to local authorities, in order to ensure the improved NHS Health Check offer can be delivered. The government should also consider ring-fencing the funding provided for the Health Check, so the recommendations of the current review can be consistently implemented across all local authorities.

24. **Social Care:** To help enable people with disabilities to live independently, under the Care Act 2014, local authorities are obligated to 'provide or arrange for services intended to prevent, reduce or delay care and support needs for adults and carers'.[32]

25. A key part of this legislation for people with musculoskeletal conditions is the provision of home aids and adaptations that are designed to facilitate independent living. People with eligible needs are entitled to aids of any value and adaptations that cost less than £1000, otherwise known as community equipment, for free by their local authority. Despite the legal requirement to provide community equipment, due to reduced budgets, some local authorities have started lowering the pricing thresholds for equipment, limiting the amount of support available to those with eligible needs.[33]

The Government should expand the funding for community equipment to ensure people with disabilities have access to the support they are entitled to, regardless of where they live.

26. The Disabled Facilities Grant (DFG) provides financial support for people with musculoskeletal conditions to access larger home modifications. The DFG provides a strong return on investment. The London School of Economics estimated that a spend of £270 million on DFGs is worth up to £567 million in health and social care savings and quality of life gains.[34] We welcomed last year's announcement of increases to the DFG budget.[35] However, Government must provide certainty to local authorities that this budget will continue to be protected and increased to meet rising demand and to help to avoid individuals moving into more expensive care settings.

The Government should increase funding for the Disabled Facilities Grant to meet rising need for home adaptations and ensure more people can live safely, independently and well in their own homes.

Proposals for a long-term sustainable funding solution, necessary to unlock a fairer, high quality social care system, must urgently be brought forward for consultation. Any long-term funding mechanism should share the risk of social care costs across society and ensure that the system can meet increased future demand.

EMPLOYMENT: enabling people with musculoskeletal conditions to be in work

27. People with musculoskeletal conditions are significantly less likely to be in work, especially full-time employment, and are less likely to be economically active. In 2018/2019, the employment rate for people with musculoskeletal conditions was 57.8%, compared to 82.2% for people without a long-term health condition.[36]

28. People with musculoskeletal conditions may be disadvantaged in the current environment, as 51% of people facing redundancy due to COVID-19 are disabled or have a long-term health condition.[37]

29. Ill health caused by musculoskeletal conditions is one of the leading causes of lost working days in the UK, losing 27.8 million working days last year alone.[38] The combined cost of worklessness and sickness absence in the UK is estimated to be around £100 billion annually, with musculoskeletal ill health being a key contributor to this figure.

Versus Arthritis welcomes the Government's commitment to reduce the disability employment gap by delivering an increase of 1 million disabled people in work between

2017 and 2027. To achieve this, structured programmes of support need to be properly funded so that people who acquire or already have a musculoskeletal condition are able to enter and stay in the workforce.

30. Access to Work is a programme designed to help people with disabilities and long-term health conditions find and stay in work through providing financial support to overcome work-related barriers.

31. Despite being the leading cause of disability in the workforce, only 11.9% of the total Access to Work spend for 2017/2018 was allocated to support people with musculoskeletal conditions.[39] A 2018 Versus Arthritis survey indicated that 59% of respondents had never heard of the Access to Work scheme or how it could help them enter and remain in work.[40]

Funding for the Access to Work scheme should be expanded, with a specific focus on delivering support to those who require new adjustments as a result of COVID-19 and responding to increased levels of home working.

Funding should also be provided to deliver immediate and ongoing promotion of Access to Work to people with musculoskeletal conditions and their employers, including highlighting the new areas of support provided in response to COVID-19.

32. The government has previously consulted on changes to statutory sick pay (SSP) as part of ‘Health is everyone’s business’ and the system has shown some flexibility in the availability of SSP for those affected by COVID-19.[41]

33. The current system of SSP should be improved to enable people with disability and long-term health conditions, to find and stay in employment through the following steps: **1)** Increase the rate of SSP in line with the minimum wage or living wage; **2)** Remove waiting days; **3)** Expand eligibility to those paid under £118 a week; **4)** Increase the length of SSP from 28 to 52 weeks; and **5)** Introduce a rebate for small and medium sized employers.

The Government should build on the steps taken during COVID-19 and improve the wider system of SSP so that everyone has access to a fair amount of SSP from their first day of employment.

CUTTING-EDGE RESEARCH: supporting the economy through a vibrant science sector and addressing musculoskeletal conditions through long-term investment in research.

34. **Versus Arthritis as a funder of research:** Since genetics was first shown to play a role in rheumatoid arthritis in 1953, through to the licensing of the first anti-TNF therapy in 2000 and transformational non-drug interventions such as ESCAPE-pain[42] and STarTBack[43], Versus Arthritis’ investment in research has delivered breakthroughs which directly improve the lived experience of people with arthritis.[44] Over the last decade, we have invested in the region of £1/4 billion in medical, health and clinical research. We support research individually and in partnership with other charities, universities, hospitals and commercial organisations to maximise impact. We partner with NIHR through Programme Grants for Applied Research and have a longstanding partnership with Medical Research Council to support three Versus Arthritis Research Centres.

35. Versus Arthritis was the fourth largest charitable funder of medical research in the UK in 2018 and the largest public funder of research into musculoskeletal conditions.[45] We have £132.4 million currently invested in cutting-edge research across the UK, from lab-based projects to clinical trials, to projects impacting on health services. Figures demonstrate that for each £1 of funding received from Versus Arthritis, an additional 72 pence has been secured from other funding organisations by those researchers, approximating to £85 million of follow-on funding leveraged from these grant holders.[46] Investment in musculoskeletal research has a significant return: in common with other areas of medical research, it is established that every £1 invested in musculoskeletal research delivers a return equivalent to around 25p every year, for ever.[47]

36. Government support for medical research charity investment in UK R&D: Medical research charity investment in high-quality cutting-edge research, careers and infrastructure has a significant and direct benefit to the UK economy. Charities are often the only funders in early-stage, discovery research which de-risks complex research questions and facilitates investment from industry and other funders. Versus Arthritis is a member of the Association of Medical Research Charities (AMRC) whose members invested £1.9 billion in medical research in 2019, representing half of all UK publicly funded medical research.[48] AMRC charities play a vital and unique role in the UK's research sector but have projected an average 41% decrease in their medical research spend over the next year due to the COVID-19 pandemic, leaving a predicted £310 million shortfall.[49] This will result in less funding to support researchers, NHS staff, patient communities, and research that saves and improves lives. The proposed Life Sciences-Charity Partnership Fund (LS-CPF) will help bridge the projected £310 million shortfall in medical research charities' research spend over the next year and protect the contribution charities can make to the Government's vision for UK R&D as independent, strategic funders of high-quality science and innovation.

We ask the Government to support the proposed Life Sciences-Charity Partnership Fund to help protect the contribution charities can make to the Government's vision for UK R&D as independent, strategic funders of high-quality science and innovation.

37. Government investment in the UK R&D sector: Versus Arthritis welcomes the Government's stated commitment to increase public R&D investment to £22 billion per year by 2024-25 along with the Government's vision for the UK to be a global science superpower. UK R&D depends on a highly networked research ecosystem. Post-COVID, there is an opportunity to preserve the UK's science interconnectedness through an R&D-led economic recovery, but this requires the Government to provide support to the whole system and its' networks.[50] It is important that the Government takes a holistic approach to R&D policy, looking far beyond the research ecosystem to ensure the business environment – from tax incentives to immigration – is optimised to support the UK's innovative industries to translate academic research into economic, environmental and societal benefit.

Versus Arthritis welcomes the Government's stated commitment to increase public R&D investment to £22 billion per year by 2024-25 and asks that the Government continue to prioritise R&D investment as a central pillar of the UK's post-COVID economy.

We call on Government to work with representatives from across the R&D sector including medical research charities, to ensure R&D effectively and optimally supports economic growth post-COVID.[51]

38. **Support for clinical research:** The NHS Long Term Plan acknowledges the benefits research and innovation can make to patients and the critical importance of research and innovation to drive future medical advance.[52] Robust evidence is emerging that research not only has academic and economic benefits but is directly associated with improved patient outcomes.[53] Even patients who are not directly involved in trials themselves benefit from being treated in research-active hospitals.[54] Adequate and sustained resource is essential to support the NIHR to underpin these ambitions.

39. Data is essential in driving improvement in musculoskeletal health at a local and national level. We welcome NHSX's vision of researchers being viewed as an integral part of a modern and digitised NHS.[55] The Versus Arthritis Centre for Epidemiology uses innovative research to advance the use of digital data and improve its analysis in epidemiology, for example the REmote MOnitoring of Rheumatoid Arthritis (REMORA) project which was the first study to demonstrate that patient-reported symptoms can be collected using a smartphone app and successfully transferred directly into NHS electronic health records.[56]

The National Institute for Health Research (NIHR) should be adequately resourced to deliver the commitments around research and innovation as set out in the NHS Long Term Plan.

The Government should prioritise investment into R&D that advances the use of digital data to drive improvement in healthcare and maximise patient benefit through digital transformation of data collection and utilisation.

40. **Addressing underserved health needs through investment in R&D:** Pre-COVID, there were inequalities to address in public funding across underserved health conditions, including MSK health.[57] Musculoskeletal conditions were consistency ranked second for Years Lost to Disability globally over a 15 year period[58], while low back and neck pain are the greatest cause of Years Lost to Disability in each of the individual UK nations and 18 other 'comparator' countries.[59] One in eight people in England report living with at least two long-term conditions, at least one of which is arthritis or a related musculoskeletal condition while four out of five people with osteoarthritis have at least one other long-term condition.[60,61] Despite this, UK public funding for research into arthritis and related conditions has been essentially static since 2014, with these conditions accounting for 22.4% of Years Lost to Disability in the UK but only receiving 3.4% of total health research funding.[62] Post-COVID, we are concerned that investment in urgent, non-COVID-19 health-related research including musculoskeletal health and multiple long-term conditions may be further reduced through a potential narrowing of priorities. There is an opportunity to achieve efficiencies of scale and maximise the impact of research investment by continuing to invest in cross-sector partnerships that can address common platforms and mechanisms of disease. We call on Government to catalyse investment and fund research where it is likely to be most impactful to address underserved and complex health conditions.

We ask Government, particularly in the light of COVID-19, to promote research which addresses the complex interdependencies of multiple long-term conditions including musculoskeletal conditions and prioritises their prevention.

The Government must ensure a balanced combination of funding strategies to support basic discovery science, incremental, progressive R&D and high risk, high return R&D through a variety of funding mechanisms offering both responsive and challenge-led funding.[63]

41. **Funding mechanisms for university R&D:** Versus Arthritis acknowledges the Government's commitment in the BEIS UK R&D Roadmap to review the mechanisms used to support university research in England and the incentives that these create within the R&D system including Quality-Related (QR) funding, which includes the **Charity Research Support Fund, (CRSF)**, and the payment of Full Economic Cost (FEC).[64] It is important to recognise that COVID-19 has resulted in a challenging time for medical research charities. Any reduction in support in real terms or increase in the proportion of FEC which charity funders are required to pay could exacerbate this. Now more than ever, Government support for the charitable sector through consistent and sustained funding mechanisms is vital.

42. Medical research charity investment is distinctive in that it catalyses and supports the whole research ecosystem, building capacity through supplying the skills pipeline, sparking further investment in R&D, funding from the patient perspective and acting as innovators and honest brokers.[65] 87% of all AMRC charity funded research takes place in universities.[66] The CRSF underpins charity investment in university research across England and enables researchers who receive charitable funding to recover costs of research that charities do not pay. Since 2010, the CRSF has been flat rate with the exception of a 3% increase in 2018/19. and the relative value of the fund has been eroded by both inflation and an increase in charity funding.[67] We are particularly concerned that any variance of scale of charity research investment resulting from COVID-19 recovery across the sector must not be allowed to negatively impact either the scale or the consistency of CRSF.

We ask the Government to consider carefully the deployment and timing of the review of Quality-Related funding and Full Economic Cost and ask that the views of medical research charities are included to ensure their distinct knowledge and experience as funders of university research is captured.

As part of its comprehensive R&D plan and focus on research sustainability brought about by COVID-19, we ask that the Government commit to an increase in the CRSF to keep pace with levels of charity R&D investment and to protect the unique partnerships between universities and charities.

43. **UK involvement in EU R&D:** musculoskeletal research in the UK has improved health & clinical outcomes across the EU and globally. Versus Arthritis-funded research pioneered the treatment of rheumatoid arthritis with biological agents and UK researchers are involved in almost all rheumatoid arthritis research programmes at EU level.[68] Versus Arthritis agrees with AMRC and others that Horizon Europe association should be a core part of the future relationship of the EU & UK for research, not least because clinical trials are reliant on EU-UK collaboration, close research partnerships accelerate life changing medical research and shared global challenges require joint solutions.[69]

Full UK association to Horizon Europe, with as few restrictions on access as possible, must be at the heart of any EU-UK science deal.

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1 https://www.gov.uk/government/publications/comprehensive-spending-review-2020-representations-guidance/comprehensive-spending-review-2020-representations-guidance
2 https://www.versusarthritis.org/about-us/
3 Global Burden of Disease Collaborative Network. Global Burden of Disease Study 2017 (GBD 2017) Results. Institute for Health Metrics and Evaluation (IHME), Seattle, 2018.
4 York Health Economics (2017). The Cost of Arthritis: Calculation conducted on behalf of Arthritis Research UK.
5 Office for National Statistics (ONS). Sickness Absence Report 2017.
6 Sustaining Long Term Innovation on R&D. Fiona Watt. In: Driving innovation and long term growth in the UK's life sciences sector. Reformer Thoughts. 2019.
7 NHS England (2019). NHS Long Term Plan.
8 https://www.csp.org.uk/system/files/publication_files/001741_COVID-19_A4%20Member%20briefing%203rd%20phase.pdf
9 https://www.england.nhs.uk/wp-content/uploads/2019/01/universal-personalised-care.pdf
10 Royal College of Surgeons England (2014). Surgery and the NHS in numbers. Accessed here: https://www.rcseng.ac.uk/news-and-events/media-centre/media-background-briefings-and-statistics/surgery-and-the-nhs-in-numbers/
11 National Joint Registry (2019). Accessed here: https://reports.njrcentre.org.uk/Portals/0/PDFdownloads/NJR%2016th%20AR%20Summary%20key%20facts%202018.pdf
12 National Joint Registry (2019). Accessed here: https://reports.njrcentre.org.uk/Portals/0/PDFdownloads/NJR%2016th%20AR%20Summary%20key%20facts%202018.pdf
13 NHS England (2020) Next Steps on NHS Response to COVID-19. Accessed here: https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/urgent-next-steps-on-nhs-response-to-covid-19-letter-simon-stevens.pdf
14 https://www.understandingsociety.ac.uk/sites/default/files/downloads/general/ukhls_briefingnote_covid_health_final.pdf
15 YouGov (2019). Polling of people with Osteoarthritis: views and experiences of joint replacement surgery.
16 https://bmjopen.bmj.com/content/2/1/e000332.citation-tools
17 Health Foundation (2020). Returning waiting times to 18 weeks for routine treatment: The scale of the challenge pre COVID-19. Accessed here: https://www.health.org.uk/sites/default/files/2020-05/NHS%20waiting%20times%2018%20weeks%20%28002%29_0.pdf
18 https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/07/Phase-3-letter-July-31-2020.pdf
19 Elective Surgery during COVID-19. Royal College of Surgeons. June 2020.
20 Health Foundation (2020). Returning waiting times to 18 weeks for routine treatment: The scale of the challenge pre COVID-19. Accessed here: https://www.health.org.uk/sites/default/files/2020-05/NHS%20waiting%20times%2018%20weeks%20%28002%29_0.pdf
21 Health Foundation (2018). Briefing: Taking our health for granted Plugging the public health grant funding gap. Accessed: https://www.health.org.uk/sites/default/files/upload/publications/2018/Taking%20our%20health%20for%20granted_for%20web.pdf
22 Institute for Public Policy Research (2019). Hitting the poorest worst? How public health cuts have been experienced in England's most deprived communities. Available: https://www.ippr.org/blog/public-health-cuts
23 Public Health England (2019). Musculoskeletal health: 5 Year Prevention Strategic Framework. https://www.gov.uk/government/publications/musculoskeletal-health-5-year-prevention-strategic-framework
24 Public Health England (2013). NHS Health Check implementation review and action plan. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/224805/NHS_Health_Check_implementation_review_and_action_plan.pdf
25 Public Health England (2019). Musculoskeletal Health: applying All Our Health. Available: https://www.gov.uk/government/publications/musculoskeletal-health-applying-all-our-health/musculoskeletal-health-applying-all-our-health
26 Public Health England (2017). Return on Investment of Interventions for the Prevention and Treatment of Musculoskeletal Conditions. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/670212/musculoskeletal_conditions_return_on_investment_literature_review.pdf
27 Versus Arthritis (2017). Providing physical activity interventions for people with musculoskeletal conditions. Available: https://www.versusarthritis.org/media/2177/physical-activity-msk-health-report.pdf
28 Nicholson, A. et.al (2006). Cost-benefit studies that support tackling musculoskeletal disorders. Health and Safety Executive (HSE) (Vol. 491). Research report. Available: https://www.hse.gov.uk/research/rrpdf/rr491.pdf
29 Public Health England (2017). Productive healthy ageing and musculoskeletal (MSK) health. Available: https://www.gov.uk/government/publications/productive-healthy-ageing-and-musculoskeletal-health/productive-healthy-ageing-and-musculoskeletal-msk-health
30 Department of Health and Social Care (2019). Advancing our health: prevention in the 2020s – consultation document. Available: https://www.gov.uk/government/consultations/advancing-our-health-prevention-in-the-2020s/advancing-our-health-prevention-in-the-2020s-consultation-document
31 LG Inform (Online). Budget - Net current expenditure - NHS health check programme (prescribed functions) (RA) in England. Available: https://lginform.local.gov.uk/reports/lgastandard?mod-metric=4000&mod-period=8&mod-area=E92000001&mod-group=AllRegions_England&mod-type=namedComparisonGroup
32 Department of Health and Social Care (2014). The Care Act. Part 1, Section 2.
33 Versus Arthritis (2019) Adapted Homes, Empowered Lives report. Available: https://www.versusarthritis.org/media/21554/adapted-homes-empowered-lives-report-2019.pdf
34 Snell T et al. (2012). Building a business case for investing in adaptive technologies in England. pssru.ac.uk/pub/dp2831.pdf
35 Ministry of Housing, Communities and Local Government (2019). https://www.gov.uk/government/publications/better-care-fund-how-it-will-work-in-2019-to-2020

36 Department for Work and Pensions. 2020. The Employment of Disabled People. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/875199/employment-of-disabled-people-2019.pdf
37 Citizens Advice (2020). An Unequal Crisis: Why workers need better enforcement of their rights. Available: https://www.citizensadvice.org.uk/Global/CitizensAdvice/Work%20Publications/An%20unequal%20crisis%20-%20final%20(1).pdf
38 Office for National Statistics (2019). Sickness absence in the UK labour market: 2018 Available: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/sicknessabsenceinthelabourmarket/2018#:~:text=An%20estimated%20141.4%20million%20working,stood%20at%202.0%25%20in%202018.
39 Versus Arthritis (2019) Policy statement: The Access to Work Scheme and musculoskeletal conditions.
40 Versus Arthritis (2018) Working with arthritis online survey results.
41 Department for Work and Pensions and the Department of Health and Social Care (2019) Health is everyone's business: Proposals to reduce ill health-related job loss. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815944/health-is-everyones-business-proposals-to-reduce-ill-health-related-job-loss.pdf
42 Adoption and spread of innovation in the NHS. The Kings Fund. 2018.
43 https://startback.hfac.keele.ac.uk/
44 https://www.versusarthritis.org/media/17906/research-timeline-poster-sept19.pdf
45 UK Health Research Analysis 2018 (UK Clinical Research Collaboration , 2020) ISBN 978-0-903730-29-7
46 Annual Report. Versus Arthritis. 2016.
47 Estimating the returns to United Kingdom publicly funded musculoskeletal disease research in terms of net value of improved health outcomes. Glover et al. Health Research Policy and Systems 16:1. 2018.
48 AMRC. Medical Research Charities: Our Sector's Footprint in 2019.
49 https://www.amrc.org.uk/Handlers/Download.ashx?IDMF=3916cef3-3f16-437e-9cb7-7dbcbd5c0c33
50 https://www.sciencecampaign.org.uk/news-media/case-comment/voice-for-the-whole-research-system.html.
51 https://wonkhe.com/blogs/a-bold-plan-for-research-will-guide-choices-in-a-post-covid-economy/
52 The NHS Long Term Plan. NHS England. 2019.
53 Recognising research - how research improves patient care. Van't Hoff & Selvaratnam: Royal College of Physicians. 2018. Accessed online April 2020
54 High hospital research participation and improved colorectal cancer survival outcomes: a population-based study. Downing et al. Gut 66:89–96. 2017.
55 Developing a plan for Tech in Health & Care - our vision. NHSX. 2020
56 https://clahrcprojects.co.uk/resources/projects/remote-monitoring-rheumatoid-arthritis-remora
57 Delivering the Science Based Economy. The Role of Health Research. Thomas & Nanda; Institute for Public Policy Research. July 2020.
58 Sebbag E, Felten R, Sagez F, et al. The world-wide burden of musculoskeletal diseases: a systematic analysis of the World Health Organization Burden of Diseases Database. Annals of the Rheumatic Diseases 2019;78:844-848.
59 The Burden of Disease in England compared with 22 peer countries. A report for NHS England. Public Health England. 17th Jan 2020.
60 The State of Musculoskeletal health 2019. Arthritis and other musculoskeletal conditions in numbers. Versus Arthritis. 2019
61 The State of Musculoskeletal health 2019. Arthritis and other musculoskeletal conditions in numbers. Versus Arthritis. 2019
62 https://www.versusarthritis.org/media/22701/arthritis-research-trends-key-messages-2020.pdf
63 Sustaining Long Term Innovation on R&D. Fiona Watt. In: Driving innovation and long term growth in the UK's life sciences sector. Reformer Thoughts. 2019.
64https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/896799/UK_Research_and_Development_Roadmap.pdf
65 https://www.amrc.org.uk/Handlers/Download.ashx?IDMF=c9dee4cb-5212-4e14-b1bf-dc0a22b9c5b5
66 AMRC. Medical Research Chariis ties: Our Sector's Footprint in 2019.
67 https://www.amrc.org.uk/Handlers/Download.ashx?IDMF=705b6694-3fbc-4320-a7f3-9596ed08c485
68 The Impact of Collaboration: The Value of UK Medical Research to EU Science and Health. A review of existing evidence and views from the EU. Technopolis Group. May 2017.
69 https://wellcome.ac.uk/reports/post-brexit-agreement-research-and-innovation-outcomes-simulated-negotiation-process