

Arthritis Research UK response to Technology and Innovation in the NHS Call for Views

1. Arthritis Research UK welcomes the opportunity to respond to the Technology and Innovation in the NHS Call for Views and to comment on the draft Digital Health and Social Care Strategy 2017-22.¹
2. Arthritis Research UK invests in breakthrough treatments, the best information and vital support for everyone affected by arthritis. We combine cutting edge research and the expertise of people with arthritis to make everyday life better for all 10 million people with these conditions in the UK.²
3. It is estimated that nearly 700,000 people in Scotland live with osteoarthritis, 44,000 people with rheumatoid arthritis and over one million with back pain.³ Furthermore, 1 in 5 people in Scotland live with chronic pain,⁴ and 1 in 20 experience severe disabling chronic pain with the most common sites of chronic pain being the back and the joints.⁵
4. Musculoskeletal conditions have a substantial impact on Health and Social Care services. The NHS spend on the annual musculoskeletal health budget in Scotland is £353 million.⁶ This is the amongst the ten largest NHS Annual Programme Budgets in Scotland. In 2012/13 there were over 600,000 consultations with a GP or practice employed nurse due to back pain in Scotland.⁷ In Scotland back and neck pain are in the top 10 most frequent conditions seen by GPs.⁸
5. **Summary points:**
 - **Local Health Boards should work with the Government to ensure telecare/telehealth services are made available to all people with musculoskeletal conditions across Scotland who require and request them.**
 - **There must be ongoing data collection within, and evaluation of, new telecare service delivery pathways to improve the experience and outcomes of people with musculoskeletal conditions.**
 - **Future telecare/telehealth strategies and data infrastructure should be suitable to support health and social care providers to identify, segment and understand the needs and requirements of people living with musculoskeletal conditions and multimorbidity in their population. This should include monitoring and measuring pain and its impact, functional abilities and capability to manage.**
 - **The Digital Health and Social Care Vision should support project teams to work with the Information Commissioners Office to ensure that data systems appropriately comply with all current and near future data legislation. This should include communicating with the public about how health and social care data is used and the choices people have.**
 - **Future Digital Health and Social Care strategies should support systematic linkage of data, with appropriate governance, on musculoskeletal conditions across all settings, and data should be used to continuously drive improvement in outcomes for people with these conditions.**
 - **Future Digital strategies should consider the work agenda in relation to health and social care including the systematic recording of work status within health records.**

- **There is an opportunity for charities and health and social care providers to engage in partnerships that support the eHealth agenda and reduce barriers to innovation, by demonstrating the value of data in improving the quality of services and outcomes, tackling inequalities, and enabling research activity.**

Consultation questions:

- 1. What do you consider have been the main successes of the existing Scottish Government's eHealth and Telecare/Telehealth strategies and why?**
- 2. What do you consider have been the main failures of the existing Scottish Government's eHealth and telecare/telehealth strategies and why?**

6. We welcome recognition of the importance of a digital approach to health and social care, and the central benefit of high quality data infrastructure to support these services. Data are essential in driving improvement in musculoskeletal health at a local and national level, and can generate an iterative process of improvement in the quality of health and care services and ultimately in outcomes. By providing information on the healthcare system, data - and the health intelligence it generates - enables questions to be raised, problems identified and priorities set.
7. There have been a number of recent developments in relation to telecare provision for musculoskeletal conditions, supported by the Allied Health Professions (AHP) Active and Independent Living Programme, which aims to work with other professions and partners across agencies to improve the health and wellbeing of the Scottish population.⁹ The Musculoskeletal Advice and Triage Service (MATS) operated Musculoskeletal Helpline is a phone service for people experiencing symptoms of musculoskeletal conditions.¹⁰ This type of service supports self-referral to appropriate AHP services and on-line information, consistent with the eHealth vision to support people to manage their own health and wellbeing in a community setting.¹¹ However currently this service is not available in every Health Board. **Local Health Boards should work with the Government to ensure telecare/telehealth services are made available to all people with musculoskeletal conditions across Scotland who require and request them.**
8. Osteoporosis is a silent weakening of bone which causes pain and disability when damaged. For people with osteoporosis a minor fall - even from standing height - can result in a major fracture, with hip fracture costs in NHS Scotland exceeding £73 million per year.¹² Appropriate and early intervention or rehabilitation can limit the impact of osteoporosis. Therefore the work of the Scottish Centre for Telehealth & Telecare on the Falls and Frailty Care Pathway redesign is welcome.¹³ Similarly, the Telecare Self Check Online Tool directs participants who may be at risk of falls to locally available telecare and community alarms.¹⁴ **There must be ongoing data collection within, and evaluation of, new telecare service delivery pathways to improve the experience and outcomes of people with musculoskeletal conditions.**
9. One of the aims of the eHealth Strategy is: *To contribute to care integration and to support people with long term conditions.*¹⁵ It is now common for people to live with two or more long-term conditions, or multimorbidity. Multimorbidity reduces quality of life, worsens health outcomes and increases mortality. People with multimorbidity rely more heavily on health and care services, and in Scotland, the prevalence of people with multimorbidity increases

from 64.9% among those aged 65–84 years, to 81.5% among those aged 85 years or over.¹⁶ Increased use of technology could greatly benefit information provision, care coordination and self-management for people with multimorbidity as recommended in the Joint Improvement Team (JIT) Action Plan to support people with multiple long term conditions.¹⁷ **NHS Scotland should work with other national and local bodies to ensure that data collection, analysis and publication raises awareness of multimorbidity.**

10. However, despite the fact that by age 65, almost 5 out of 10 people with a heart, lung or mental health problem will also have a musculoskeletal condition,¹⁸ and that 4 out of 5 people with osteoarthritis have at least one other long-term condition such as hypertension or cardiovascular disease,¹⁹ musculoskeletal conditions are not recognised as a chronic disease in Scottish Government health strategies.^{20,21} Furthermore, the presence of any long-term condition is associated with a reduction in quality of life, but if arthritis or back pain is present as one of the long-term conditions, the impact is even greater.²² Therefore, **future telecare/telehealth strategies and data infrastructure should be suitable to support health and social care providers to identify, segment and understand the needs and requirements of people living with musculoskeletal conditions and multimorbidity in their population. This should include monitoring and measuring pain and its impact, functional abilities and capability to manage.**
11. We also look forward to the forthcoming publication of the '*Creating a Meaningful Census of Technology Enabled Care (Telecare) in Scotland*' report to better understand the provision and uptake of telecare services, in particular those related to musculoskeletal conditions.²³

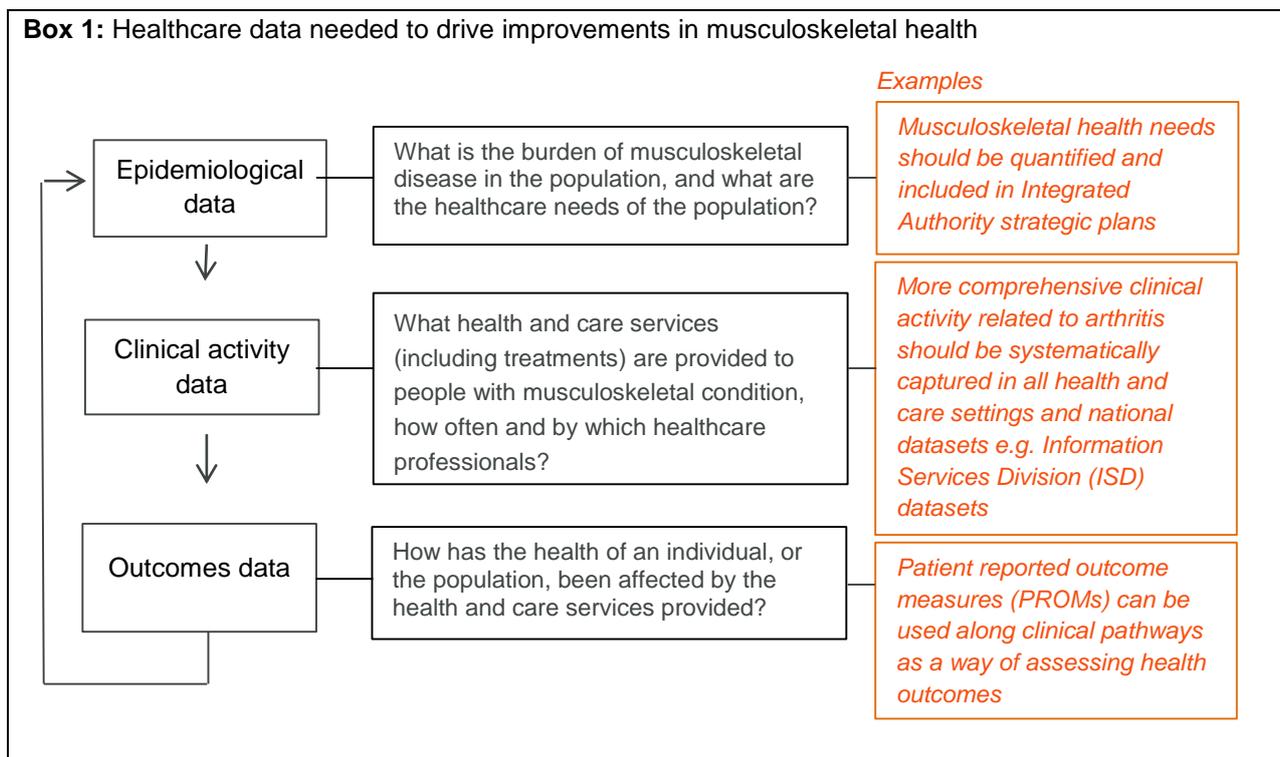
Consultation questions:

3. **How well does the Scottish Government's draft Digital Health and Social Care Vision 2017-2022 address the future requirements of the NHS and social care sector?**
4. **Do you think there are any significant omissions in the Scottish Government's draft Digital Health and Social Care vision 2017-2022?**
6. **What actions are needed to improve the accessibility and sharing of the electronic patient record?**

12. The draft Digital Health and Social Care Vision is ambitious in its scope and covers many areas that are of value in the future health and care landscape. The ability to deliver this Vision will likely be impacted by a combination of short- and medium-term factors. For example, the forthcoming UK Government response to the Caldicott review on information governance in relation to patient data,²⁴ and wider system changes resulting from the ongoing integration of health and social care in Scotland.²⁵
13. Improved collection and use of patient data must be accompanied by the development of proportionate and robust processes to ensure good data governance and maintain public confidence. This is essential to ensure data collected in the health and social care system is available for both service improvement and research use. This has recently been well demonstrated by the Scottish Primary Care Information Resource (SPIRE). This project has developed an Information Governance Framework which describes principles and arrangements that will underpin the project and to which the service will adhere to ensure patient confidentiality is maintained.²⁶ **The Digital Health and Social Care Vision should support project teams to work with the Information Commissioners Office to ensure**

that data systems appropriately comply with all current and near future data legislation. This should include communicating with the public about how health and social care data is used and the choices people have.

14. In relation to people with arthritis, delivering any or all of the individual aspects of this Vision can be supported through urgent improvement in the system-wide availability, quality and analysis of musculoskeletal data. While there are currently a limited number of mandated targets against which certain musculoskeletal healthcare services are monitored,²⁷ NHS Scotland does not undertake comprehensive collection of epidemiological, clinical activity or outcome data for musculoskeletal conditions, three areas where data is essential to drive improvements in health outcomes and patient experience (**Box 1**).



15. Arthritis Research UK has worked with health and social care stakeholders to outline how a comprehensive, collaborative approach may be taken to support the practical and useful flow of data through health and social care systems (**Box 2**). This need has recently been recognised by NHS England which has made a commitment to increasing the collection of musculoskeletal data.²⁸ **Future Digital Health and Social Care strategies should support systematic linkage of data, with appropriate governance, on musculoskeletal conditions across all settings, and data should be used to continuously drive improvement in outcomes for people with these conditions.**

Box 2: The Recommended MSK Indicator Set²⁹

The use of appropriate indicators can help those responsible for planning, managing and improving services to better understand the activity of health and social care services and the outcomes they deliver. Arthritis Research UK led the development of the **Recommended MSK Indicator Set**: a standard set of indicators for musculoskeletal health services created in partnership with primary and specialist care clinicians, people with arthritis, commissioners, public health experts and policymakers for use in an English health and social care setting. The ultimate vision for these indicators is to improve health outcomes for people with these conditions, by supporting efforts to improve quality of services locally and nationally.

16. Designing and developing telehealth/care services with a traditional single condition-led approach is unlikely to be sufficient in future, with the number of people with multimorbidity in the UK set to increase at pace.³⁰ As outlined above, **due consideration should be made to ensure future Digital strategies adequately address multimorbidity, including people with musculoskeletal conditions.**

Consultation questions:

5. **What key opportunities exist for the use of technology in health and social care over the next 10 years?**
7. **What are the barriers to innovation in health and social care?**

17. There are many opportunities to embed the use of technology across health and social care in the coming decade. For example, cognitive computing involves 'self-learning systems that use data mining, pattern recognition and natural language processing to mimic the way the human brain works'.³¹ Its goal is to create systems that are capable of solving problems without requiring human assistance. There is increasing recognition of the value of cognitive computing in healthcare, as seen in initiatives including IBM Watson Health.³² This technology is already being applied in clinical trials matching and in supporting clinical decision making.³³ Arthritis Research UK is exploring its potential to support people with musculoskeletal conditions to access information to support self-management, through an on-line interface.
18. While the Vision addresses health and social care, it omits reference to the work and health interface, and the importance of work as a health outcome. Musculoskeletal conditions resulted in 30.8 million working days lost in 2016, second only to minor illnesses.³⁴ A recent survey carried out by Arthritis Care in Scotland reported that although most people were in employment when they were first diagnosed with arthritis, less than half were by the time they took part in the survey.³⁵ The report also highlighted that for around two thirds of people with arthritis, pain and fatigue affect capabilities, half have physical limitations which can restrict capacity to carry out physical tasks, and more than half need to take time off work for medical appointments or sickness absence. **Future Digital strategies should consider the work agenda in relation to health and social care including the systematic recording of work status within health records.**
19. Research charities like Arthritis Research UK can help to address barriers to innovation that are encountered in health and social care (see **Box 3**). Through the provision of research funding and support for evaluation and roll-out of new technologies, **there is an opportunity for charities and health and social care providers to engage in partnerships that**

support the eHealth agenda and reduce barriers to innovation, by demonstrating the value of data in improving the quality of services and outcomes, tackling inequalities, and enabling research activity.

Box 3: Arthritis Research UK Primary Care Research Centre³⁶

The **Arthritis Research UK Primary Care Centre** is focused on reducing the existing wide variation of care, treatment and overall management of musculoskeletal conditions. Many of the projects at this centre involve digital technology, for example using databases for analysis, and through the development of mobile phone applications for patients and clinicians. Automated electronic templates and clinical decision support tools have also been developed, including for back pain. This is a major cause of ill-health, and in 2012/13 there were over 600,000 consultations with a GP or practice employed nurse due to back pain in Scotland.³⁷ **STaRT Back** is a tool that stratifies people with back pain into three groups enabling clinicians to deliver more targeted interventions, and can be integrated into GP computer systems. This model has been demonstrated to result in greater health benefits, alongside an average saving to the NHS in England of £34.39 per patient and societal savings of £657 per person.

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