

## Musculoskeletal conditions and public health in Scotland - policy statement

Musculoskeletal conditions such as rheumatoid arthritis, osteoarthritis, back pain and osteoporosis are the leading cause of long-standing illness in Scotland.<sup>1</sup>

Arthritis Research believes musculoskeletal conditions must become a public health priority in Scotland. We recommend:

- The Scottish Government, NHS Scotland and the new integration authorities should put people with musculoskeletal conditions at the heart of their public health activities.
- The Scottish Government should maintain or increase public health spend in real terms and report both public health spend and spend on public health services relating to musculoskeletal conditions.
- Musculoskeletal health should be included as a public health priority in any forthcoming public health strategy.<sup>2</sup>

### 1. Musculoskeletal conditions in Scotland

Musculoskeletal conditions are the leading cause of long-standing illness in Scotland.<sup>3</sup> Poor musculoskeletal health often goes hand in hand with other indicators of morbidity such as obesity and mental health issues. Tackling poor musculoskeletal health will in the long-term both improve individual health outcomes and reduce the costs to society.

Key statistics	
Burden of disease	<ul style="list-style-type: none"> <li>• It is estimated that nearly 700,000 people in Scotland live with osteoarthritis.<sup>4</sup></li> <li>• It is estimated that 37,000 people in Scotland live with rheumatoid arthritis.<sup>5</sup></li> <li>• 1 in 5 people in Scotland live with chronic pain*<sup>6</sup> and 1 in 20 experience severe disabling chronic pain with the commonest sites of chronic pain being the back and the joints.<sup>7</sup></li> </ul>
Impact on Scottish health and public health services	<ul style="list-style-type: none"> <li>• In 2012/3 there were over 600,000 consultations with a GP or practice employed nurse due to back pain in Scotland.<sup>8</sup></li> <li>• In Scotland back and neck pain are in the top 10 most frequent conditions seen by GPs.<sup>9</sup></li> <li>• The number of people in Scotland having hip and knee joint replacements has grown from 7,000 to 15,000 in the last 10 years.<sup>10</sup></li> <li>• Physical inactivity is a leading risk factor for global morbidity and accounts for 5% of disability adjusted life years (DALYs) in the UK.<sup>11</sup></li> </ul>
Economic impact on health and public health services in Scotland	<ul style="list-style-type: none"> <li>• The NHS spend on the annual musculoskeletal health budget in Scotland is £353 million (2011/2).<sup>12</sup> This is the 10<sup>th</sup> largest NHS Annual Programme Budget in Scotland.</li> <li>• Hip fracture costs on NHS Scotland exceed £73 million per year.<sup>13</sup></li> <li>• In 2013, back pain, neck pain, upper limb problems and other musculoskeletal problems together accounted for the greatest number of working days lost in the UK at 30.6 million days.<sup>14</sup></li> </ul>

Arthritis Research UK believes that musculoskeletal health should be a public health priority across the UK. In its report 'Musculoskeletal health: a public health approach', the charity brought together the evidence across the life-course on the public health opportunities to

\* Chronic pain is defined as 'Pain which has persisted beyond normal tissue healing time', generally taken to be three months for non-malignant pain by the International Association for the Study of Pain.

support people with musculoskeletal conditions. It identified ageing, obesity and physical inactivity as major risk factors, the latter two of which are modifiable.<sup>15</sup>

However, musculoskeletal conditions may even have a proportionally greater impact on the health of the population in Scotland than in the UK, given the higher rates of obesity and an ageing population.<sup>16</sup> Changing demographics mean that by 2035 Scotland will have the highest median age of the four UK countries.<sup>17</sup> In the next 20 years the number of people over 75 in Scotland is likely to have increased by almost 60% and demography alone could increase expenditure on health and social care by over 70%.<sup>18</sup>

Although prevalent across all areas of society, musculoskeletal conditions have a greater prevalence in the most deprived communities in Scotland (where 23% of the adult population have a musculoskeletal condition) compared to the least deprived areas (where 15% are affected).<sup>19</sup> Following a pattern similar to musculoskeletal conditions, mental health conditions are also more common in the most deprived areas affecting 15% of the population compared to only 6% of the population in the least deprived areas.<sup>20</sup> Living with a painful condition can cause depression, which is four times more common for those living with persistent pain than without.<sup>21</sup>

The impact of pain on both the individual and society is a major public health issue. 1 in 5 people in Scotland suffer chronic pain, and 1 in 20 suffer severe, disabling chronic pain, with the commonest sites of chronic pain being the back and the joints.<sup>22</sup> Evidence shows being from a more socially deprived background increases the risk of pain.<sup>23</sup> Although pain is most commonly treated by drug interventions, there is also a role for a focus on lifestyle factors such as diet and physical activity in terms of preventing the development of painful conditions, and living well with a musculoskeletal condition.

## 2. Public health in Scotland

Scotland lags behind other parts of the UK for many indicators of good health (for example Scotland has the highest age-standardised alcohol-related death rate in the UK).<sup>24</sup> It also compares poorly to other European countries in terms of life expectancy.<sup>25</sup> In recent years however there has been a real drive to improve public health and identify key areas of intervention. Premature mortality has reduced by 38% since 1994.<sup>26</sup> Scotland has led the way in a number of areas of public health such as policy on tobacco, where the Government introduced smoke free workplaces in 2006 a year before the rest of the UK. Scotland was also one of the first countries to introduce a national physical activity strategy: Let's Make Scotland More Active in 2003 which built upon previous work undertaken by the National Physical Activity Taskforce set up by Ministers in 2001.<sup>27</sup>

*"Major public health challenges such as obesity, mental health problems and inactivity, together with the persistence of health inequalities, require a concerted population health response, achieved through the organised efforts of society."*<sup>28</sup>

*2015 Review of Scottish Public Health, the Scottish Government*

Multimorbidity (living with two or more chronic conditions) is now 'the norm' amongst people with long-term conditions. Its prevalence is expected to grow, and will continue to be shaped by risk factors such as age and gender. The impact of multimorbidity on a person's life can also be influenced by the wider determinants of health such as lifestyle, their living and working conditions, and the environment and community. In Scotland, there is a strong relationship between deprivation and prevalence of multimorbidities. A cross-sectional analysis of 1,272,685 adults in Scotland showed that 'mixed physical and mental

multimorbidity was much more common (two to three times) in the most deprived group compared to the least deprived at all ages under 75 years.<sup>29</sup> Musculoskeletal conditions are a major and frequently found multimorbidity. Painful conditions are one of the ten most common multimorbidities in primary care.<sup>30</sup> Pain and depression are recognised as ‘common comorbidities’ of many conditions.<sup>31</sup> Four out of five people with osteoarthritis, the most common form of arthritis, have at least one other long-term condition such as hypertension, cardiovascular disease or depression.<sup>32</sup>

### 3. Current public health structure, funding and policy in Scotland

As with the NHS in Scotland, public health services are a devolved responsibility:

- Overall provision of public health services is the duty of the Scottish Government which has a Public Health Division (since October 2015, operating as two divisions: Health Protection and Health Improvement and Equality) and, since January 2015, a Directorate of Population Health Improvement.
- The Public Bodies (Joint Working) (Scotland) Act 2014 received royal assent on 1 April 2014.<sup>33</sup> The Act provides the legislative framework for integration of health and social care services in Scotland. It requires local integration of adult health and social care services, with statutory partners (Health Boards and Local Authorities) deciding locally whether to include children’s health and social care services in their integrated arrangements.
- 14 regional health boards oversee 31 Health and Social Care Partnerships (HSCPs) which came into effect in April 2016 (see footnote below for more information).<sup>†</sup>
- The overall budget for the NHS in Scotland is £12 billion which includes £9.6 billion allocated to territorial and special health boards (Draft budget 2015-16).<sup>34</sup>
- Scotland does not routinely estimate the total expenditure on public health.<sup>35</sup> However, within the Scottish Government Health Budget spend under the heading ‘Improving Health and Better Public Health’ is an estimated £313.6 million in 2015/16 including £73.5 million for the Integration Fund.<sup>36</sup>
- In February 2016 the Scottish Government published ‘A Review of Public Health in Scotland’ in which it recommended the development of a Scottish public health strategy.<sup>37</sup>
- Aileen Campbell is the Minister for Public Health and Sport and was appointed in May 2016.

### 4. How is Arthritis Research UK involved?

Arthritis Research UK has a long-standing record of working alongside people with arthritis and researchers in Scotland. We are committed to preventing the onset of arthritis, developing a cure for arthritis and transforming the lives of those with arthritis:

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<sup>†</sup> Health and Social Care Partnerships (HSCPs) are the organisations formed as part of the integration of services provided by Health Boards and Councils in Scotland. Each partnership is jointly run by the NHS and local authority. There are 31 HSCPs across Scotland. Under the legislation HSCPs were given two options for models of integration:

- [Model 1](#): The Health Board and Local Authority delegate the responsibility for planning and resourcing service provision for adult health and social care services to an Integration Joint Board.
- [Model 2](#): The Health Board or the Local Authority takes the lead responsibility for planning, resourcing and delivering integrated adult health and social care services.

All HSCPs, with the exception of the Highland HSCP, have opted for model 1 and have set up Integration Joint Boards (IJBs). Whichever model was chosen in April 2016 HSCPs were expected to be fully functioning and became statutory bodies, taking over responsibilities. By this date Integration Authorities must develop a Strategic Plan for their area which sets out how they will meet both local and the nationally agreed health and wellbeing outcomes.

- We are currently funding almost £13 million of research, educational projects and training in Scotland.
- We are currently working on a Scottish version of our MSK-Calculator which maps the prevalence of musculoskeletal conditions by local area.<sup>38</sup>
- The Musculoskeletal Health Questionnaire (the MSK-HQ) is being piloted by physiotherapists and podiatrists in clinical settings in Scotland.<sup>39</sup>
- In 2014 we published the report 'Musculoskeletal Health: A public health approach' which has a foreword from the four UK CMOs.

## 5. Recommendations

Arthritis Research UK wants to make musculoskeletal health a public health priority in Scotland and we will work closely with the Scottish Government and integration authorities to ensure it is on the agenda. Our target areas for effecting change are:

- Improving musculoskeletal health through physical activity.<sup>40</sup>
- Tackling obesity as both a preventative measure for developing musculoskeletal conditions and weight-loss as part of treating existing musculoskeletal ill-health.<sup>41</sup>
- Supporting people with musculoskeletal conditions to be in work and improving musculoskeletal health in the workplace.<sup>42</sup>
- Getting recognition that living with chronic pain has a serious effect on both physical wellbeing and mental health.

Our recommendations are:

1. The Scottish Government, NHS Scotland and the new integration authorities should put people with musculoskeletal conditions at the heart of their public health activities.
2. The Scottish Government should seek to maintain or increase public health spend in real terms and report both public health spend and spend on public health services relating to musculoskeletal conditions.
3. Musculoskeletal health should be included as a public health priority in any forthcoming public health strategy.<sup>43</sup>
4. When programmes targeting lifestyle factors such as obesity are being designed, implemented and evaluated, the impact on musculoskeletal health should be explicitly included.
5. The Scottish Government should support employers to promote good musculoskeletal health in the workplace and help people with musculoskeletal conditions to return to work.
6. All public health activity in Scotland should be underpinned by high quality data about musculoskeletal health.
7. Musculoskeletal health should be included when local and national population health in Scotland is assessed.
8. The benefits of physical activity to people with musculoskeletal conditions should be included when health promotion messages are developed.

**Tim Marshall, October 2016**

### External review:

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- 1 The Scottish Government (2016). A National Clinical Strategy for Scotland. <http://www.gov.scot/Resource/0049/00494144.pdf>
- 2 <http://news.scotland.gov.uk/News/Public-health-review-227e.aspx>
- 3 The Scottish Government (2016). A National Clinical Strategy for Scotland. <http://www.gov.scot/Resource/0049/00494144.pdf>
- 4 Arthritis Research UK (2017) MSK Calculator data
- 5 Arthritis Research UK (2017) MSK Calculator data
- 6 International Association for the Study of Pain. Classification of Chronic Pain, Second Edition (Revised). <http://www.iasp-pain.org/PublicationsNews/Content.aspx?ItemNumber=1673&navItemNumber=677>
- 7 Smith B (2016). Chronic Pain in Scotland: Highlighting the need for chronic pain services in 2016 and beyond. <http://chronicpainscotland.org/wp-content/uploads/2016/05/Chronic-Pain-in-Scotland-v1-4-Briefing-and-Background-Paper.pdf>
- 8 <http://www.isdscotland.org/Health-Topics/General-Practice/GP-Consultations/Health-Conditions/Back-Pain/>
- 9 Arthritis and Musculoskeletal Alliance (2012). The musculoskeletal map of Scotland. <http://arma.uk.net/wp-content/uploads/2013/03/Scotland-Musculoskeletal-map-FINAL-2012-2.pdf>
- 10 Information Services Division Scotland (2016). Scottish Arthroplasty Project: A summary of procedures and outcomes for patients undergoing arthroplasty operations during 2012-2013. <http://www.arthro.scot.nhs.uk/Reports/Main.html>
- 11 Murray C et al. (2013). UK Health Performance: Findings of the Global Burden of Disease Study 2010. Lancet 381(9871): 997-1020.
- 12 NHS Scotland Programme budget category code 15: musculoskeletal conditions 2011/2 Problems of the Musculoskeletal System = £35.5 million; (3.8% of total). <http://www.gov.scot/Publications/2015/08/4735/4>
- 13 The National Falls Programme in association with WorksOut as part of the Delivery Framework for Adult Rehabilitation in Scotland (2012). Up and About or Falling Short? - A Report of the Findings of a Mapping of Services for Falls Prevention in Older People <http://www.gov.scot/Publications/2012/05/6979/3>
- 14 Office of National Statistics (2014). Full report: Sickness Absence in the Labour Market, February 2014.
- 15 Arthritis Research UK (2014). Musculoskeletal health - A public health approach.
- 16 Health & Social Care Information Centre (2014). Statistics on Obesity, Physical Activity and Diet: England 2014. <http://www.hscic.gov.uk/catalogue/PUB13648/Obes-phys-acti-diet-eng-2014-rep.pdf> [In Scotland, 27.1% of adults were classified as obese, and 64.3% of adults were classified as being overweight or obese in 2012. In Wales, 23.0% of adults were classified as obese, and 58.5% of adults were classified as being overweight or obese. This compares with 24.7% of adults being obese in England and 61.9% of adults being overweight or obese.]
- 17 Office for National Statistics (2012). Population Ageing in the United Kingdom, its Constituent Countries and the European Union. [http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp/171776\\_258607.pdf](http://webarchive.nationalarchives.gov.uk/20160105160709/http://www.ons.gov.uk/ons/dcp/171776_258607.pdf)
- 18 The Scottish Government (2015). Achieving Sustainable Quality in Scotland's Healthcare: A '20:20' Vision. <http://www.gov.scot/Topics/Health/Policy/2020-Vision>
- 19 The Scottish Government (2016). A National Clinical Strategy for Scotland. <http://www.gov.scot/Resource/0049/00494144.pdf>
- 20 The Scottish Government (2016). A National Clinical Strategy for Scotland. <http://www.gov.scot/Resource/0049/00494144.pdf>
- 21 Guthrie B et al. (2012). Adapting clinical guidelines to take account of multimorbidity. BMJ, 345, e6341.
- 22 Smith B (2016). Chronic Pain in Scotland: Highlighting the need for chronic pain services in 2016 and beyond. <http://chronicpainscotland.org/wp-content/uploads/2016/05/Chronic-Pain-in-Scotland-v1-4-Briefing-and-Background-Paper.pdf>
- 23 Polshuck L et al. (2008). Socioeconomic disadvantage and pain. Pain, 136, 235-238.
- 24 Office for National Statistics (2016). Alcohol Related Deaths in the United Kingdom: Registered in 2014. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/alcoholrelateddeathsinthegreatbritainandnorthernireland/registeredind2014#summary>
- 25 The Scottish Government (2016). 2015 Review of Public Health in Scotland: Strengthening the Function and re-focusing action for a healthier Scotland. <http://www.gov.scot/Publications/2016/02/8475>
- 26 NHS Scotland (2016). Chief Medical Officer's Annual Report 2014-5. <http://www.gov.scot/Resource/0049/00492520.pdf>
- 27 The Scottish Government (2003) Let's Make Scotland More Active <http://www.gov.scot/Resource/Doc/47032/0017726.pdf>
- 28 The Scottish Government (2016). 2015 Review of Public Health in Scotland: Strengthening the Function and re-focusing action for a healthier Scotland. <http://www.gov.scot/Publications/2016/02/8475>
- 29 McLean G et al (2014). The influence of socioeconomic depression on multimorbidity in different ages: a cross-sectional study. Br J Gen Pract. Jul, 64(624), e440-e447.
- 30 Guthrie B et al. (2012). Adapting clinical guidelines to take account of multimorbidity. BMJ, 345, e6341.
- 31 National Institute for Health and Care Excellence (2016). Multimorbidities: the assessment, prioritisation and management of care for people with commonly occurring multimorbidity. <https://www.nice.org.uk/guidance/indevelopment/qid-cgwave0704>
- 32 Breedveld F et al. (2004). Osteoarthritis: the impact of a serious disease, Rheumatology 43:1, 14-18.
- 33 The Scottish Government (2014). Public Bodies (Joint Working) (Scotland) Act 2014. <http://www.gov.scot/Topics/Health/Policy/Adult-Health-Social-Care-Integration/About-the-Bill>
- 34 The Scottish Government (2014). Scottish Budget: Draft Budget 2015-16. <http://www.gov.scot/Publications/2014/10/2706/7>
- 35 The Scottish Government (2016). 2015 Review of Public Health in Scotland: Strengthening the Function and re-focusing action for a healthier Scotland. <http://www.gov.scot/Publications/2016/02/8475>
- 36 The Scottish Government (2016). 2015 Review of Public Health in Scotland: Strengthening the Function and re-focusing action for a healthier Scotland. <http://www.gov.scot/Publications/2016/02/8475>
- 37 The Scottish Government (2016). 2015 Review of Public Health in Scotland: Strengthening the Function and re-focusing action for a healthier Scotland. <http://www.gov.scot/Publications/2016/02/8475>
- 38 <http://www.arthritisresearchuk.org/policy-and-public-affairs/policy-priorities-and-projects/musculoskeletal-health-services/the-musculoskeletal-calculator.aspx>
- 39 <http://www.arthritisresearchuk.org/policy-and-public-affairs/policy-priorities-and-projects/musculoskeletal-health-services/musculoskeletal-health-questionnaire.aspx>
- 40 Arthritis Research UK (January 2014). Physical activity: policy position statement.
- 41 Arthritis Research UK (October 2014). Overweight and obesity: policy position statement.
- 42 Arthritis Research UK (July 2016). Working with arthritis.