Contents

6 Musculoskeletal conditions

6.1 Introduction

Musculoskeletal (MSK) conditions include a broad range of disorders that affect joints, muscles, and bones. This includes conditions that have a genetic, autoimmune pathology as well as those caused by injury or gradual deterioration with age. [1] There are over 100 different forms of musculoskeletal conditions which, to a varying degree, can affect a person's ability to go about their daily life. [2] Examples of MSK conditions include joint stiffness and swelling, back pain, fatigue and joint pain. Descriptions of some of the main conditions included in this chapter are included in Box 1 below.

Box 1: Definitions used in this section

Arthritis – a common condition involving inflammation of the joints. There are a number of subtypes of arthritis, including rheumatoid arthritis, osteoarthritis, and juvenile idiopathic arthritis. [3] Osteoarthritis is the most common form of the disease, which can affect any joint, but is most commonly reported in the knees, hips and hands. [4]

Gout – an inflammatory condition whereby urate crystals form around the joints, caused by higher levels of uric acid in the blood. [5] It causes sudden episodes of pain and swelling around the joints and is identified as a form of arthritis. [6]

Osteoporosis – a disease that results in gradual deterioration of bone tissue and reduced density, which weakens bones and makes them more likely to break. [7] [8] It is particularly common in post-menopausal women and is often identified following a fall or fracture.

For some people, pain and disability caused by MSK conditions will be a continuous part of their daily lives, whereas episodic flare-up may be more common for others. [4] There is also an observed association between MSK conditions and health more broadly; notably, people with osteoarthritis are more likely to also suffer from cardiovascular disease and have a higher incidence of depression, obesity and diabetes. [1] [9]

In addition, MSK problems are associated with an increased risk of falling, which – particularly for older people – can increase the risk of disability and premature mortality. [10] According to the Global Burden of Disease Study, the largest contributors to disability-adjusted life years (DALYs)[1] caused by MSK problems are lower back pain, neck pain and osteoarthritis. [11]

Every year in England, one in five people attends a GP appointment with an MSK problem, which equates to 4.6m appointments. [2] In addition, in 2014/15 there were

---

[1] DALYs are a way of measuring and comparing the health burden of different disease conditions and health states. One DALY represents one year of 'healthy life' lost due to a given disease or state of health.

1.4m MSK admissions to hospital consultant care and 2.16m bed days caused by MSK complaints. [2] In total, the NHS spends around £5bn every year in England on treating patients with MSK conditions. [10]

Many people suffering from an MSK condition are of working age. Public Health England (PHE) estimates that in 2013 some 30.6m days of sickness absence were caused by MSK conditions, representing 23% of all lost working days. [12] In addition, those who suffer from MSK conditions are more likely to be out of work or unable to work full time because of their condition. [12] For those in work, MSK disorders can have a significant impact on employers as well as the individual. [13]

6.2 Causes and risk factors

Given the many different types of MSK condition, the associated risk factors are also wide-ranging and are likely to be multifactorial in cause. Arthritis Research UK groups the major forms of MSK into three broad categories – inflammatory conditions, conditions of pain, and fragility. [2] The major risk factors and common features of each type of condition are set out in Table 1.

Table 1: Major types of MSK condition and associated risk factors

	Inflammatory	**Pain**	**Fragility**
Major conditions in group	• Rheumatoid arthritis • Juvenile idiopathic arthritis • Ankylosing spondylitis	• Osteoarthritis • Back pain[2] • Neck pain[1]	• Osteoporosis • Fracture from a fall
Age of people suffering from the condition	• Affects any age	• Affects any age, but more common as age increases	• Affects mainly older people
Risk factors	• Genetics • Smoking • Obesity • Diet • Gender	• Increasing age • Genetics • Previous injury • Obesity • Home/work environment • Gender • Physical inactivity	• Increasing age • Genetics • Smoking • Alcohol • Poor diet • Low levels of physical activity • Existing inflammatory disorders • Gender • Vitamin D levels

Source: Adapted from Arthritis Research UK [2]

---

[2] Back and neck pain are included as conditions given the high levels of reported morbidity. However, they are generally viewed as symptoms of other underlying MSK conditions.

There are critical opportunities to improve MSK health across the life course, including through maternal health during pregnancy and even before conception. Regular exercise, good diet and higher levels of vitamin D before and during pregnancy have been found to correlate with increased bone strength in childhood and later life. [9]

Throughout the life course, obesity significantly increases the risk of developing MSK conditions. This is principally due to weight-loading on joints, particularly on the knees and back, as well as inflammation around the joints caused by fatty tissue. [14]

Physical activity, particularly weight-bearing exercise, throughout life can support good MSK health. [8] Exercise improves bone density and builds up strength, which can prevent and improve the symptoms associated with MSK conditions. It has been observed that roughly 68% of patients with rheumatoid arthritis in the UK are not physically active. Arthritis Research UK highlights the 'vicious circle' this causes, with low physical activity leading to increased pain and further reducing the ability to remain active. [2]

Both poor diet and tobacco use have also been found to correlate with a greater burden of MSK disorders. [15] Cigarette smoking is likely to have an impact on the inflammatory response, and it has also been shown to reduce bone density. In addition, lack of vitamin D as a result of limited sun exposure and an insufficient dietary intake of calcium can cause weakened bones. A high alcohol and caffeine intake can also contribute to inflammation. [15]

Finally, there are a number of workplace risk factors associated with poor MSK health, including heavy lifting, repetitive tasks and sitting for long periods. [16] Given the high burden of MSK disorders in the workforce at large, small adaptations to the working environment to promote long-term bone health could significantly reduce the severity of MSK complaints at a population level.

6.3 Local data and unmet need

For the purpose of the JSNA, back pain is reported alongside specific MSK conditions, in line with the Arthritis Research UK framework (see Table 1). However, it is important to note that back pain is a symptom of a range of different conditions, and often with no obvious cause.

6.3.1 Numbers affected – known to services

Prevalence of MSK conditions in primary care

Figure 1 and Table 2 show that back pain is a commonly recorded MSK symptom in both Hackney and the City, with around a quarter of adult (18+) GP patients having ever been diagnosed (Hackney n=53,357 and City of London n=1,507). Other specific MSK conditions are much less common, although there is significant variation in prevalence by age group (discussed further in Section 6.4.1).

Figure 1: Percentage of adults in Hackney and the City with GP-recorded MSK conditions (18+, 2017)
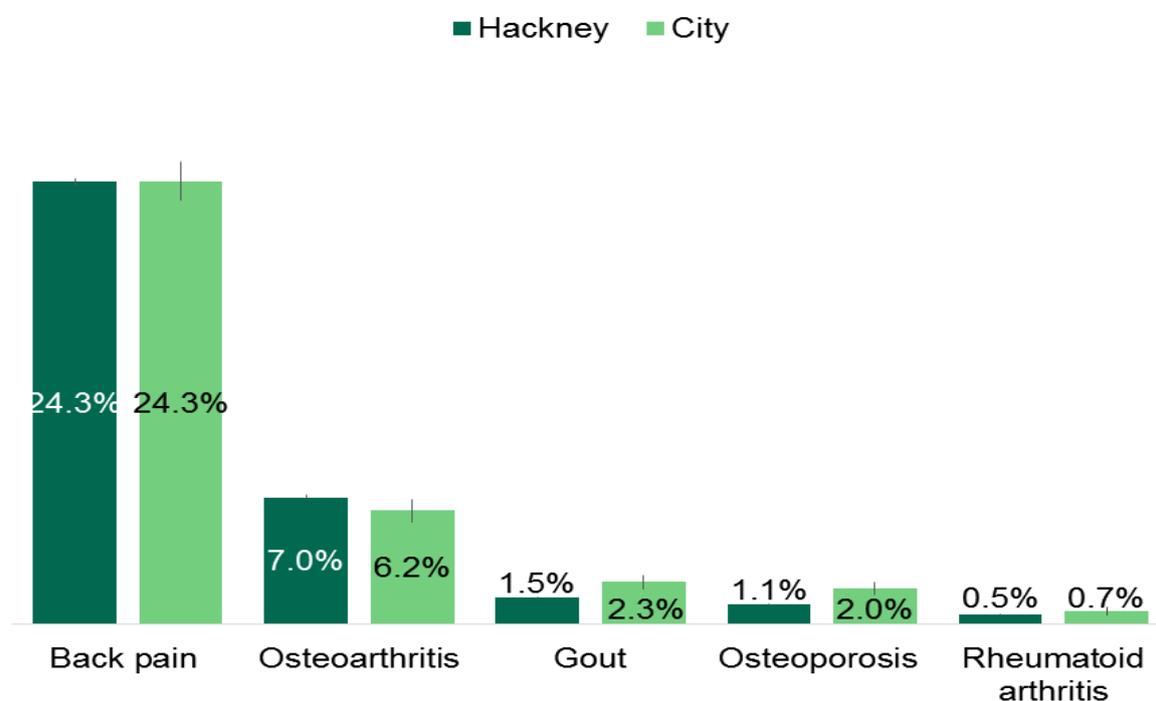
Source: Extracted from the local GP register by Clinical Effectiveness Group (CEG), Blizard Institute, April 2017.
Notes: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Table 2: Number of adults in Hackney and the City with GP-recorded MSK conditions (18+, 2017)

MSK condition	Number of GP patients	
	Hackney	**City**
Back pain	53,357	1,507
Osteoarthritis	15,323	387
Gout	3,201	144
Rheumatoid arthritis	1,192	45
Osteoporosis	2,415	122

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Notes: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

MSK outcomes

Among people age 65+ in 2016/17, the annual rate of hip fractures in Hackney and the City patients was 461 per 100,000 population, and the annual rate of hospital admissions caused by falls was 2,624 (per 100,000). [17]

Joint replacement is one of the last stages of treatment for people severely affected by the pain of osteoarthritis in the knees and hips. In 2015/16, there were 213 joint replacements performed at Homerton Hospital (in all patients, not just Hackney and the City residents), 62% of which were related to hip procedures and 38% related to knees. [18]

The NHS RightCare MSK intelligence packs indicate a longer length of stay for planned and emergency MSK hospital treatment in Hackney and the City compared with the national average. However, these differences are not statistically significant. [19]

6.3.2 Numbers affected – estimates

Estimated prevalence rates of knee and hip osteoarthritis and rheumatoid arthritis are derived from national population surveys that ask participants to self-report a condition/pain. Results are then modelled (with some validation from national GP records) to give specific rates for the Hackney and the City population. The way arthritis estimates are produced means data are only available for the population of Hackney and the City of London combined.

The definition of back pain used to derive the estimates reported below is based on self-reported back pain lasting three months or more in the past year.

As with all modelled estimates based on national population surveys, caution should be exercised when interpreting these for local use.

Figure 2 reports the estimated prevalence of back pain and specific MSK conditions in Hackney and the City, covering different age groups in each case. Knee osteoarthritis (in people age 45+) is estimated to be the most common MSK condition, followed by back pain (age 18+) and then hip osteoarthritis (age 45+). Estimated prevalence of rheumatoid arthritis (age 16+) is much lower, at less than 1%.

Figure 2: Estimated prevalence of Hackney and the City population with selected MSK conditions (2011)
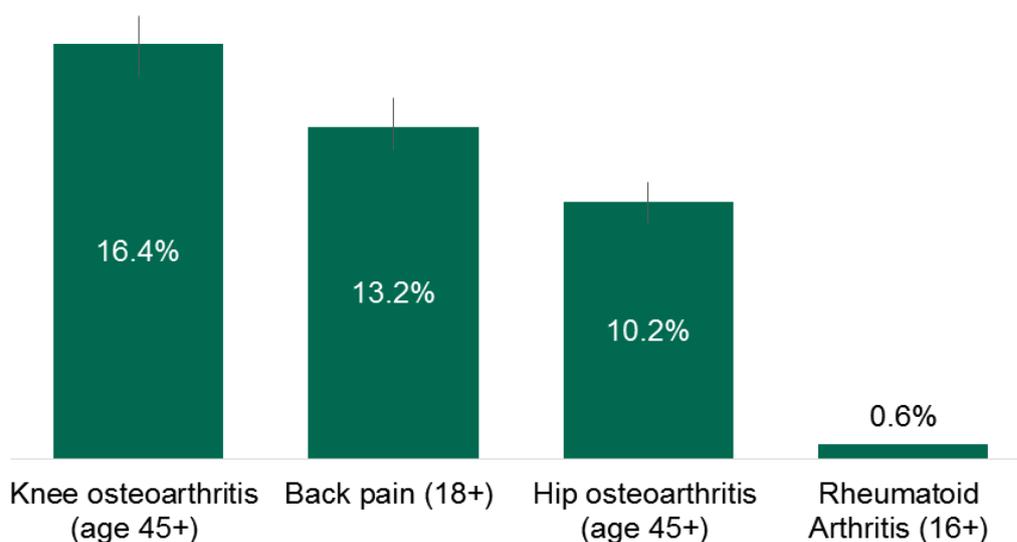
Source: Arthritis Research UK [20]
Note: Back pain estimates are based on self-reported back pain lasting three months or more in the past year.

The prevalence rates shown in Figure 2 have been applied to the 2017 projected resident population of Hackney and the City to provide estimates of the number of people affected by each condition locally (see Table 3).

Table 3: Estimated number of Hackney and the City residents with selected MSK conditions (2017)

MSK condition	Age group	Estimated number of Hackney and the City residents affected in 2017
Rheumatoid arthritis	**16+**	1,289
Osteoarthritis (hip)	**45+**	7,604
Osteoarthritis (knee)	**45+**	12,285
Back pain	**18+**	28,995

Source: Arthritis Research UK. [20] Greater London Authority (GLA) population projections. [21] NHS Digital. [22]
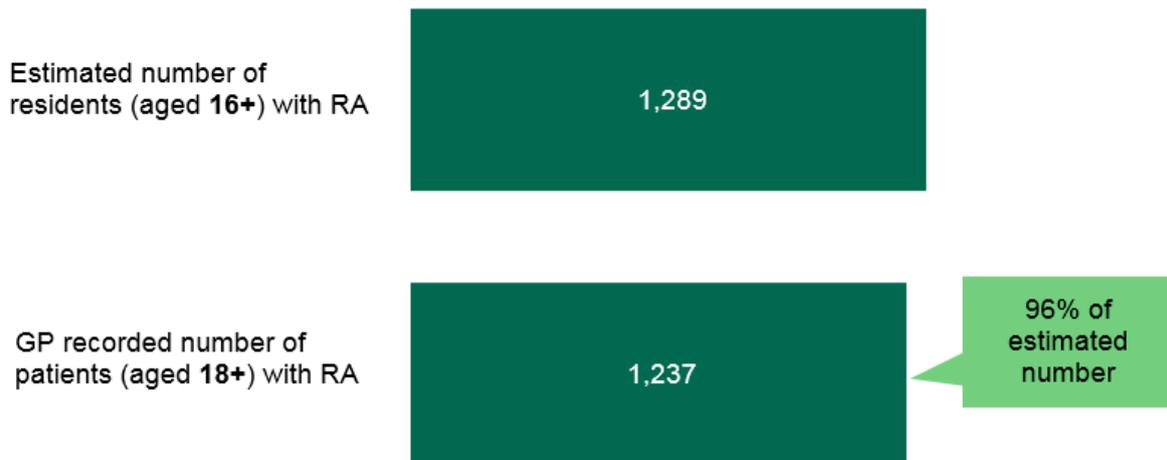
6.3.3   Unmet need

Given the different definitions used to derive local estimates of MSK conditions, the only possible comparisons for making an assessment of unmet need in Hackney and the City are for rheumatoid arthritis.

However, as alluded to in Section 6.3.2, it is important to note that even in this case, caution must be exercised when drawing conclusions. For example, the data used to create estimated prevalence of rheumatoid arthritis are not current, but taken from the English Longitudinal Study of Ageing (ELSA) 2000/01 – 2010/11, the *Health Survey for England* (HSE) 2005 and national GP data from 2015. This is of particular relevance in somewhere like Hackney and the City, which has seen significant population change in recent years. Moreover, evidence suggests that rheumatoid arthritis is not well captured in self-report style questionnaires (such as ELSA and HSE). [23] Importantly, modelled estimates based on national population surveys may also be less applicable to areas with significant ethnic diversity (as locally).

In addition, estimates for rheumatoid arthritis are based on adults age 16+, while GP recorded prevalence is based on patients age 18+.

With these caveats in mind, estimated and recorded local prevalence of rheumatoid arthritis is reported in Figure 3. There is no evidence of unmet need, in terms of under-diagnosis of this particular MSK condition, based on these data.

Figure 3: Estimated and recorded prevalence of rheumatoid arthritis (RA) in Hackney and the City (2017)

Estimated number of residents (aged **16+**) with RA	1,289
GP recorded number of patients (aged **18+**) with RA	1,237 — 96% of estimated number

Sources: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Arthritis Research UK. [20] GLA population projections. [21]
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

6.4 Inequalities

The data used to describe MSK inequalities below are combined for Hackney and the City of London.
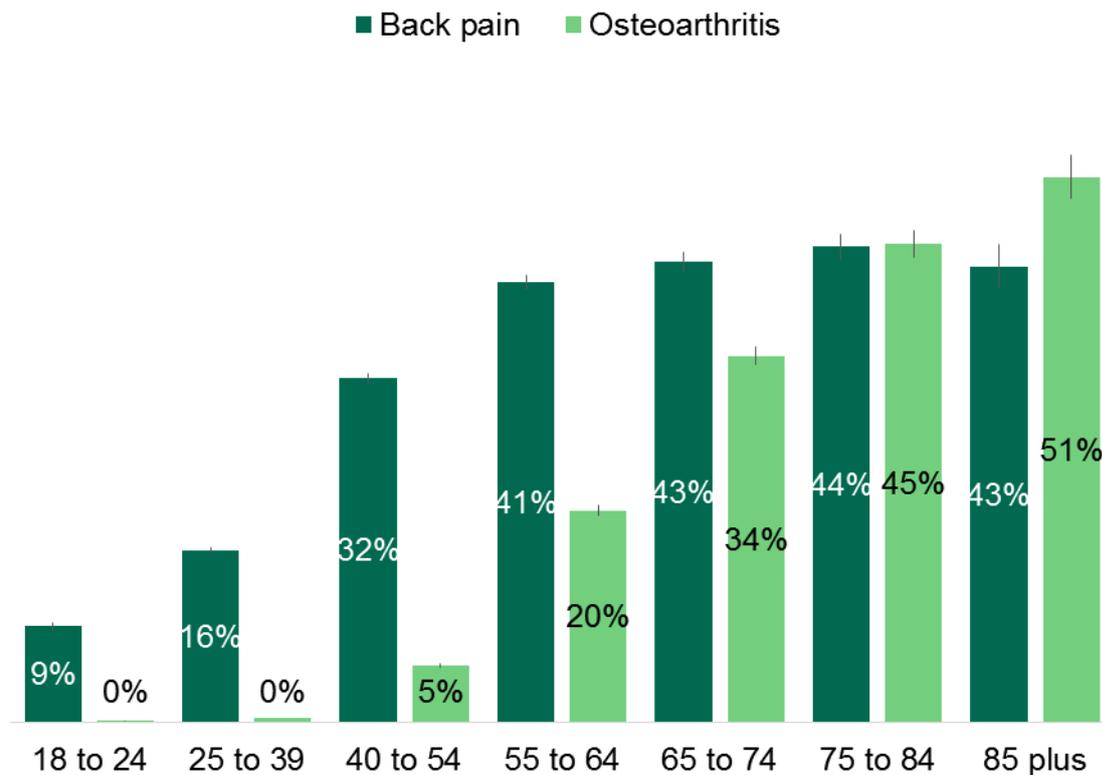
6.4.1 Age

Prevalence of all MSK conditions in Hackney and the City increases with age (see Figure 4 and Figure 5Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.
Figure 5). These trends are particularly stark for osteoarthritis, gout and osteoporosis.

Between 40% and 50% of GP patients over the age of 65 are recorded to have back pain. However, the vast majority of Hackney and the City GP patients with recorded back pain are under the age of 65, reflecting the relatively young age profile of the local population. Younger adults are significantly more likely to be diagnosed with back pain than any specific MSK condition.
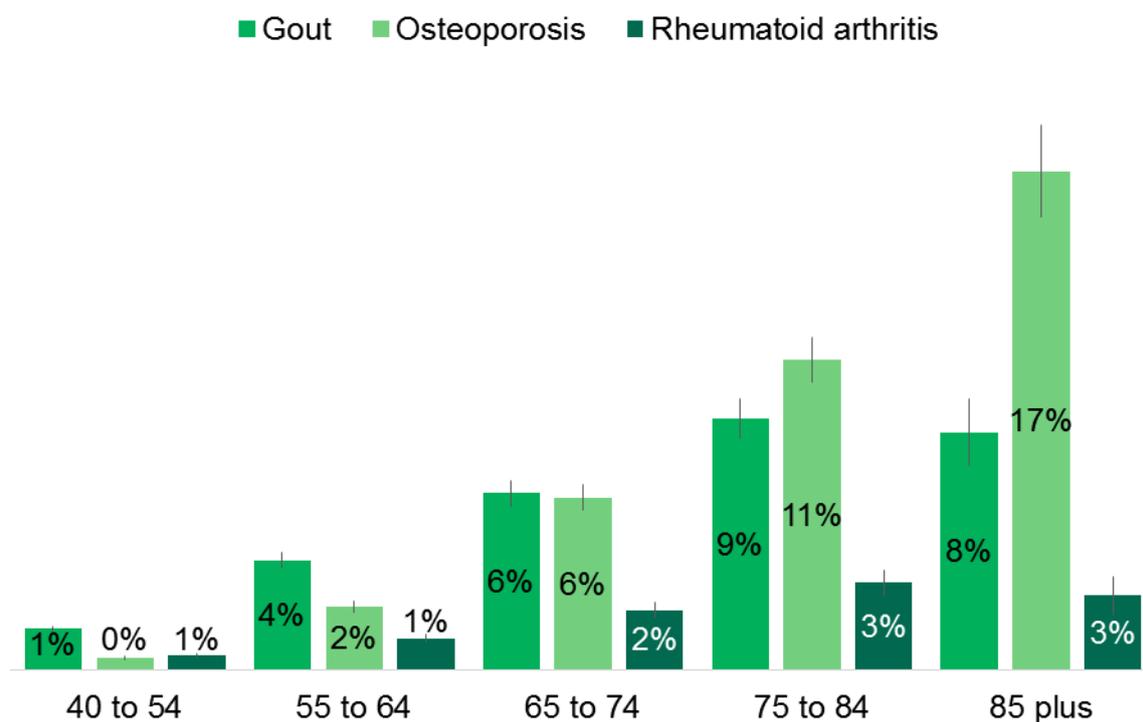
Figure 4: Prevalence of Hackney and the City residents with GP-recorded back pain and osteoarthritis (age 18+, 2017)

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Figure 5: Prevalence of Hackney and the City residents with GP-recorded gout, osteoporosis and rheumatoid arthritis (age 40+, 2017)

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham. Age categories used in this figure start from 40 due to very low numbers of people under that age with the various conditions.

6.4.2 Gender

Locally, GP-recorded back pain and most specific MSK conditions (osteoarthritis, osteoporosis and rheumatoid arthritis) are more prevalent in females than males (see Figure 6, Figure 7 and Table 4) – this may reflect actual prevalence or a degree of under-diagnosis in men. Gout is more commonly reported in men; 77% of patients diagnosed with gout are male.

Figure 6: Prevalence of Hackney and the City residents with GP-recorded MSK conditions (18+, 2017)
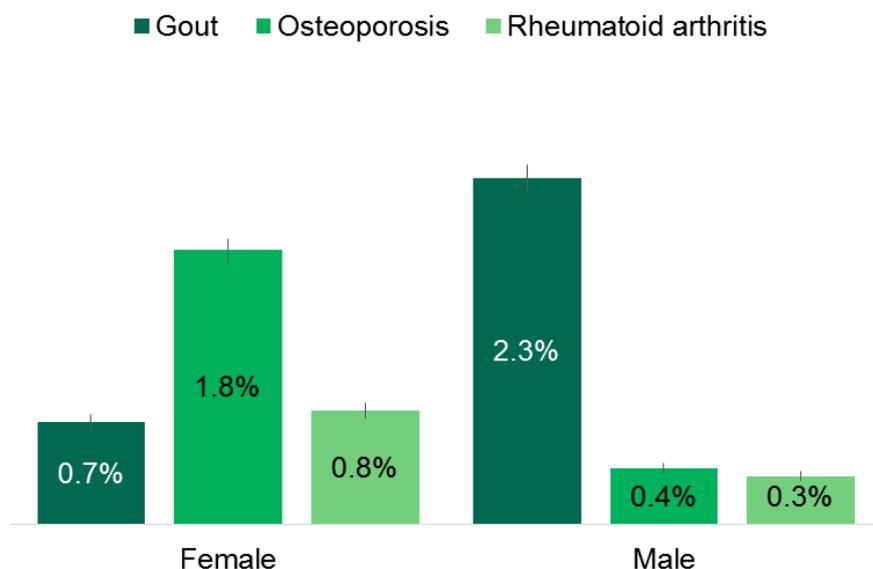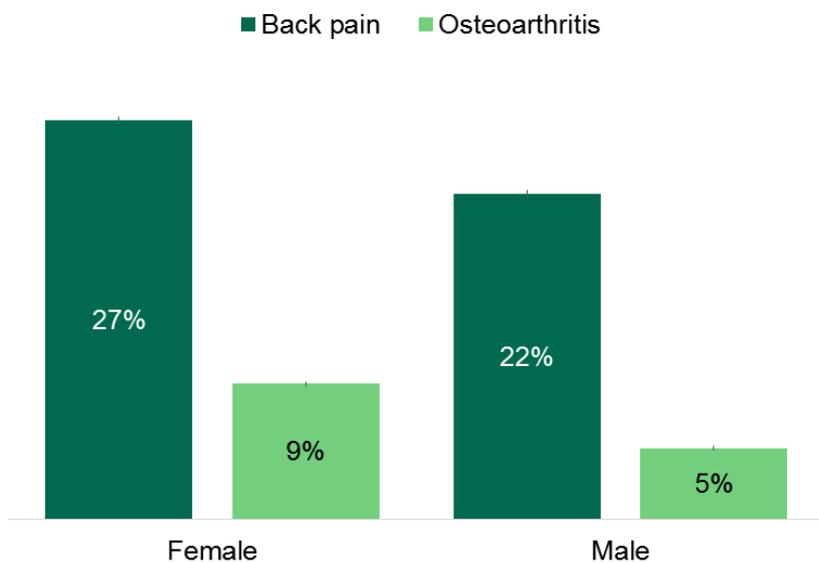

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Figure 7: Prevalence of Hackney and the City residents with GP-recorded back pain (18+, 2017)

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Table 4: Gender ratio (number of females for every one male) of Hackney and the City GP patients with MSK conditions (18+, 2017)

Back pain	Rheumatoid arthritis	Osteoarthritis	Gout	Osteoporosis
1.3	2.5	2.0	0.3	5.1

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
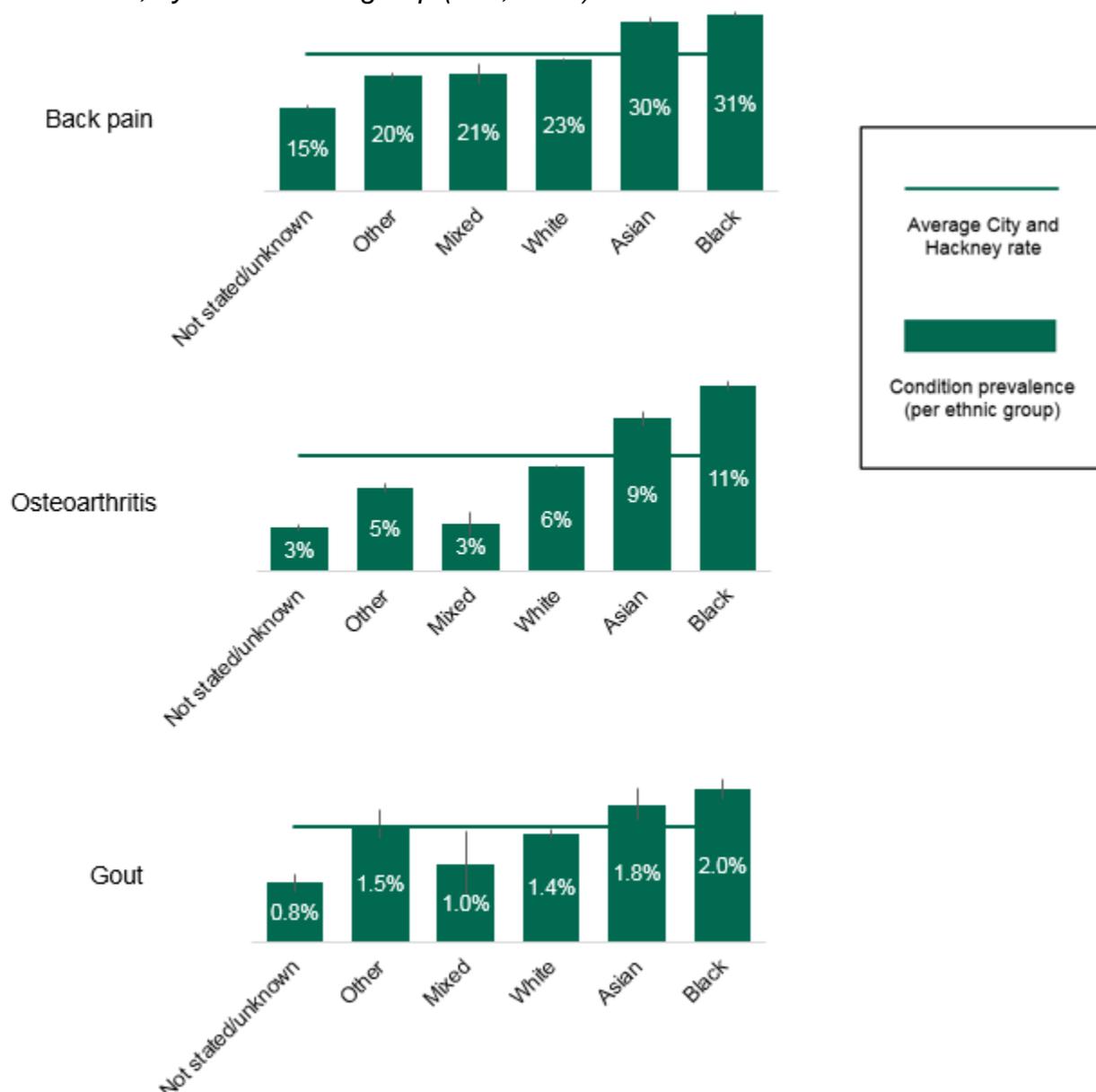Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

6.4.3 Ethnicity

Variation in local prevalence of GP-recorded MSK conditions across ethnic groups differs by condition. Figure 8 and Figure 9 show that, in Hackney and the City:

- back pain, osteoarthritis and gout are most common in Black and Asian ethnic groups
- osteoporosis is slightly more prevalent in White and Asian ethnic groups
- rheumatoid arthritis is more common in Asian, Black and White ethnic groups.

Figure 8: Prevalence of Hackney and the City residents with GP-recorded MSK conditions, by broad ethnic group (18+, 2017)

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.
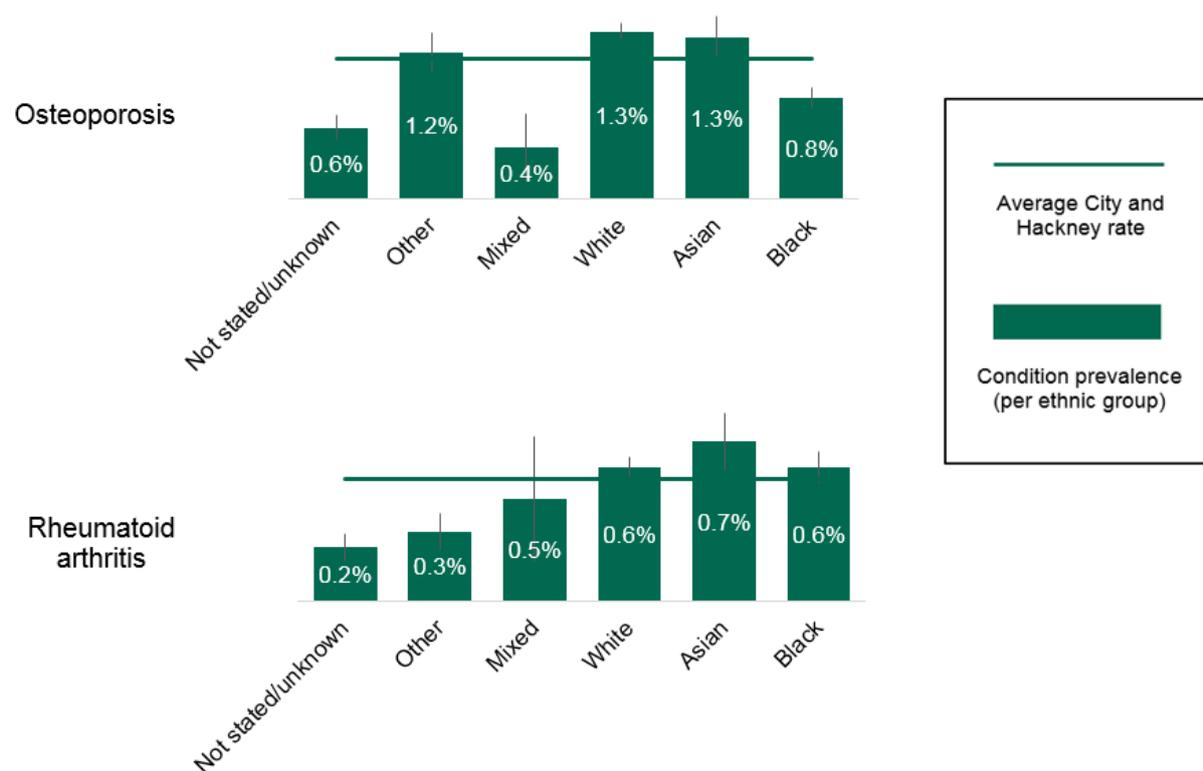
Figure 9: Prevalence of Hackney and the City residents with GP-recorded MSK conditions, by broad ethnic group (18+, 2017)

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

6.4.4 Sexual identity

There is insufficient information on the MSK health of people by sexual identity and orientation to draw local inference.

6.4.5 Disability

As described in the introduction, MSK conditions contribute to significant disability in the UK.

Local GP records are able to identify whether a patient is 'housebound', which can be used as a proxy to indicate that they may have limited mobility. In Hackney and the City, 42% of housebound patients are recorded as having back pain, compared to 24% of all patients. [24]

6.4.6 Socio-economic disadvantage

Figure 10 shows that there is a clear socio-economic gradient in GP-recorded prevalence of back pain and osteoarthritis locally, and a similar pattern for gout. Those living in the most deprived neighbourhoods of Hackney and the City are significantly more likely to be recorded as experiencing these conditions than those living in the least deprived areas.

These patterns are not observed for osteoporosis or rheumatoid arthritis, despite some of the risk factors for these conditions (including smoking, obesity and poor diet) being strongly associated with low socio-economic status. It is possible that the small numbers involved may be masking any underlying relationship between condition prevalence and local area deprivation.

Figure 10: Prevalence of Hackney and the City residents with GP-recorded MSK conditions, by deprivation quintile (18+, 2017)
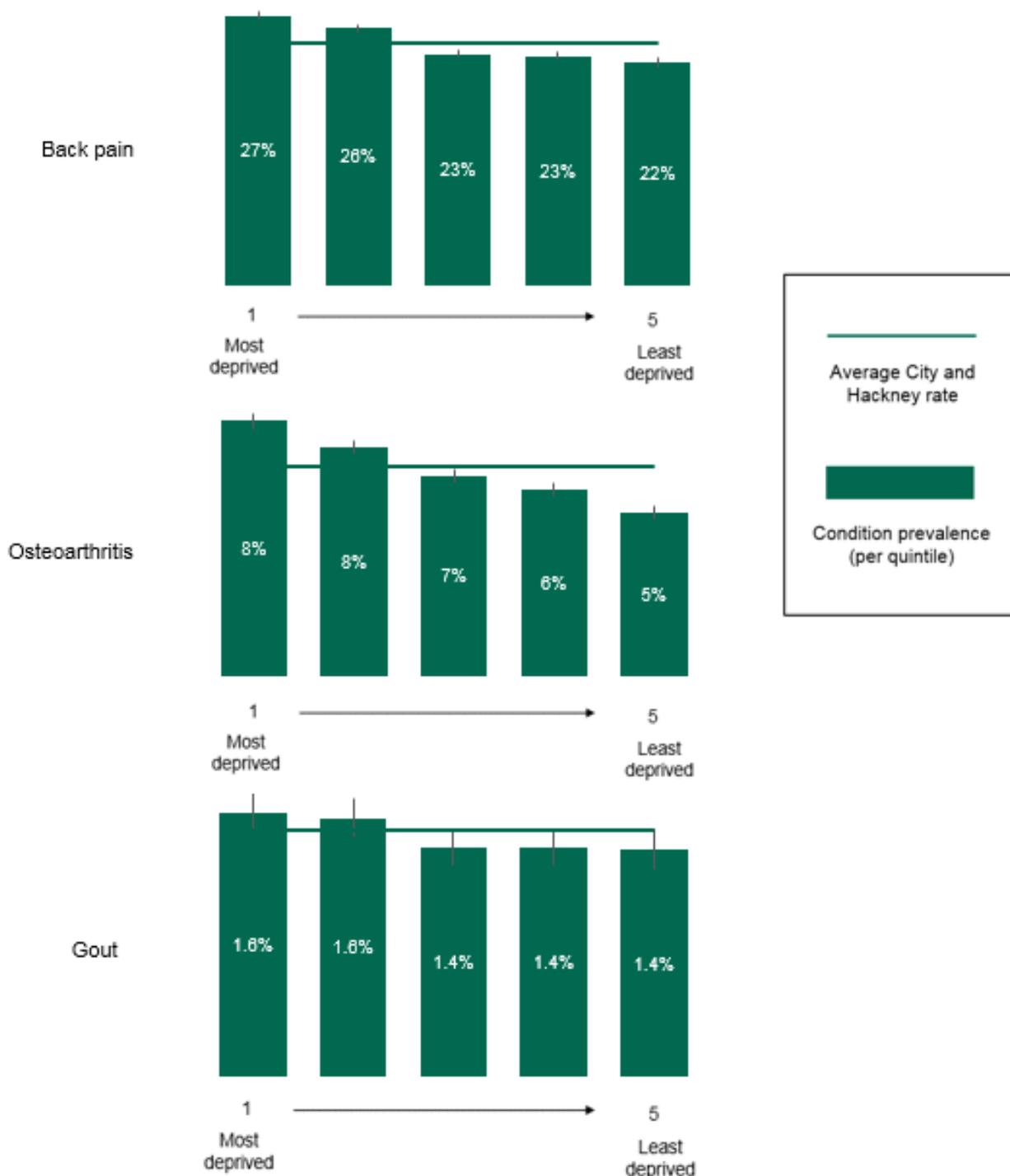
Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham. Deprivation is defined using the Index of Multiple Deprivation 2015 (IMD). IMD is a measure of relative deprivation for small areas that combines 37 separate indicators each reflecting a different aspect of deprivation experienced by individuals living in an area. Deprivation groupings are reported from 1 (most deprived) to 5 (least deprived).

Figure 11: Prevalence of Hackney and the City residents with GP-recorded MSK conditions, by deprivation quintile (18+, 2017)
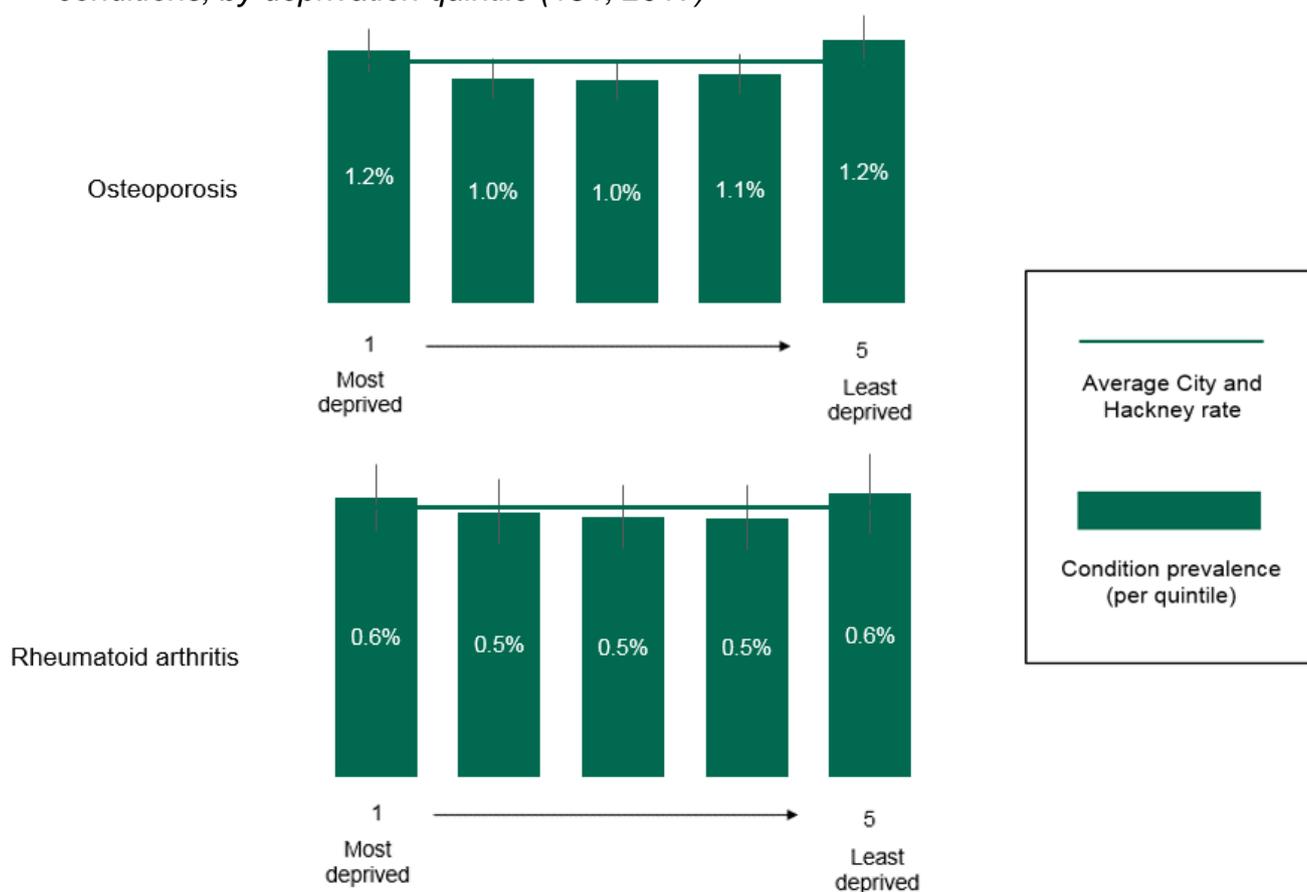
Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017.
Note: Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham. See note to Figure 10 for explanation of deprivation measure used in this figure.

6.4.7 Location within Hackney and the City

The Musculoskeletal Calculator from Arthritis Research UK reports a 3.5 percentage points difference between areas with the highest and lowest estimated prevalence of back pain in Hackney (using medium super output areas, or MSOAs,[3] for comparison). The lowest estimated prevalence is 11.6% in the Brownswood area (in the north of the borough) and the highest is 15.1% in the Hackney Marshes area (in the south east).

Hackney health and wellbeing ward profiles provide more detail on the geographic variation in prevalence of GP-recorded back pain across the borough. [25]

---

[3] MSOAs are geographic areas that are part of a hierarchy designed to report small area statistics in England and Wales. Middle layer super output areas are built from groups of contiguous lower layer super output areas (LSOAs). One MSOA contains an average population of 3,000 people.

6.5 Comparisons with other areas and over time

6.5.1 Prevalence of MSK conditions

The data presented in Figure 12 reveal that prevalence of GP-recorded osteoporosis is very similar in both Hackney and the City compared to all but one of Hackney's statistical peers, and lower than the London and England averages.

Please note that these data are taken from a different source to the local data recorded earlier in this section. No other comparable data are available on GP-recorded MSK conditions.

Figure 12: Prevalence of Hackney and the City residents on GP-recorded osteoporosis disease register (50+, 2017)
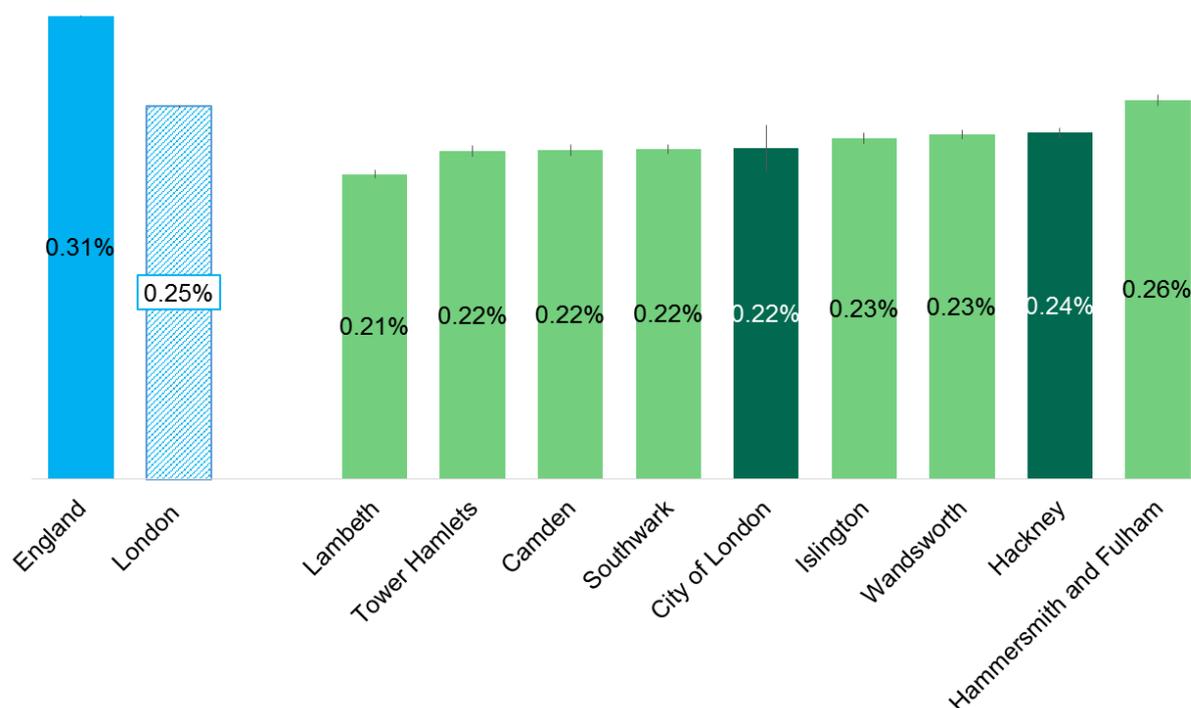
Source: PHE Fingertips. [17]
Note: Denominator is the estimated number of people age 50+ registered with local practices, numerator is the actual number of people recorded on practice disease registers. This figure only captures patients on one of the osteoporosis disease registers, the inclusion criteria of which are:
- osteoporosis register 1: patients aged 50 or over who have not attained the age of 75 with a record of a fragility fracture on or after 1 April 2012 and a diagnosis of osteoporosis confirmed on a DXA scan
- osteoporosis register 2: patients aged 75 and over with a record of fragility fracture on or after 1 April 2014 and an osteoporosis diagnosis.

6.5.2 MSK outcomes

Figure 13 and
Figure 14 reveal that the rate of hospital admissions for hip fractures and falls-related injuries in older adults (age 65+) is not statistically different from most similar areas. The rate of admissions for falls-related injuries is higher than the London or England average, however.

Figure 13: Age standardised rate of emergency hospital admissions for hip fractures per 100,000 population (65+, 2015/16)
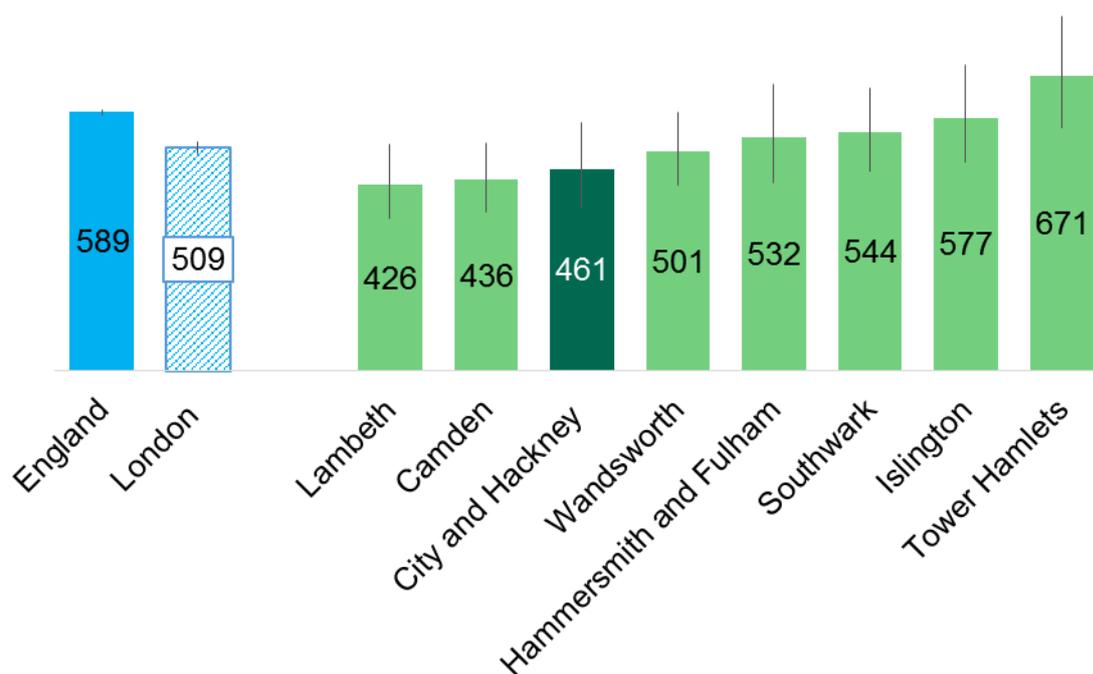
Source: PHE Fingertips. [17]

Figure 14: Age standardised rate of emergency hospital admissions for injuries due to falls per 100,000 population (65+, 2015/16)
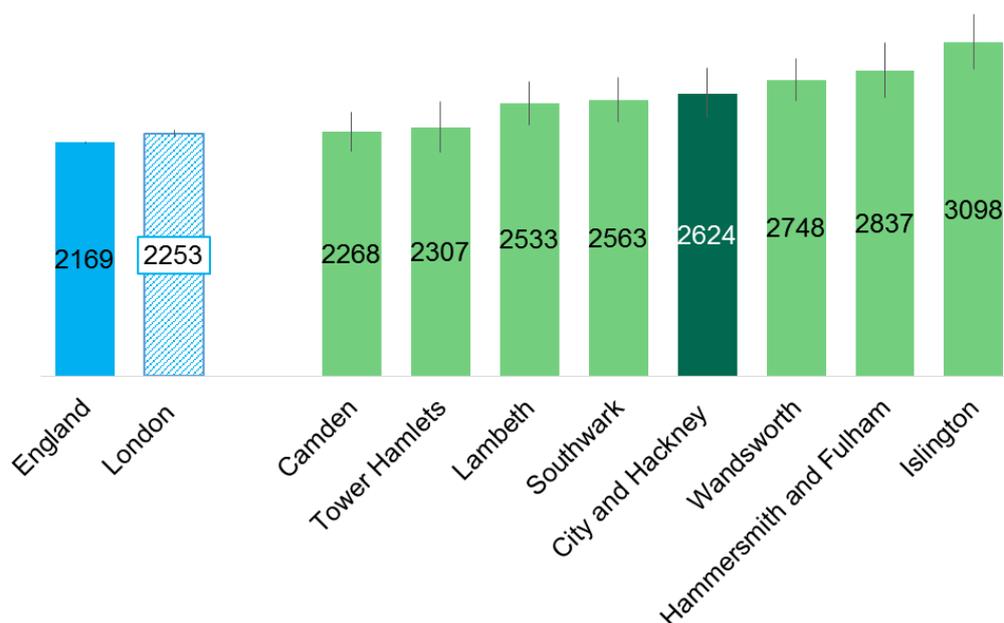
Source: PHE Fingertips. [17]

6.6 Evidence and good practice

6.6.1 Prevention

It is possible to modify behaviours to prevent many (although not all) MSK conditions and limit the impact they have on a person's functioning and/or quality of life. Prevention of MSK disorders requires a life course approach to recognise relevant opportunities to influence good MSK health at key life stages and different ages.

Development *in utero* and during childhood lays the foundations for good MSK health. A mother's diet is particularly important during pregnancy for her baby's healthy bone and muscle tissue development. Overweight and obesity during childhood places pressure on bones and joints, which can indicate a greater propensity for poor MSK health in adulthood (see the 'Children and young people' chapter). [10] Taking steps to improve diet, increase physical activity and quit smoking are important measures to maintaining good MSK health for as long as possible (see the 'Lifestyle and behaviour' chapter for more detail on evidence-based approaches to address these risk factors).

Evidence-based weight management interventions are described in the 'Obesity' section of this chapter.

In older people, a key preventative measure is to reduce the risk of falls, which can lead to fractures and cause a rapid deterioration in bone health by severely reducing physical activity. National Institute for Health and Care Excellence (NICE) guidance exists to support healthcare professionals and carers to prevent falls in the community and in hospital, and for people who are at high risk of falling or have already had recurrent falls. [25]

NICE guidance also highlights the importance of physical activity as a strategy for preventing MSK conditions. Notably, NICE has produced guidance related to physical activity in the workplace, which seeks to encourage employers to support their employees to remain active for the benefit of long-term health. [26]

Similarly, PHE has published a report on productive and healthy ageing and MSK health. In addition to lifestyle factors, the report advocates evidence-based workplace interventions that support MSK health as well as improving people's social connectivity and mental wellbeing. [27]

6.6.2   Identification and early intervention

Early identification is vitally important for many MSK conditions as, often, progression of these disorders can cause irreversible damage that is difficult to manage in the longer term. Similarly, early identification of MSK conditions can allow for efforts to safeguard against further accident or injury that could exacerbate the condition. [9]

NICE guidance exists for a range of MSK conditions, highlighting pathways for assessment and diagnosis as well as supporting clinicians in appropriately triaging patients who present with symptoms. [28]

NICE guidance around secondary prevention of falls is also relevant here (see Section 6.6.1).

6.6.3   Treatment, care and support

It is important for healthcare professionals to assess the impact that an MSK condition has on an individual patient, including their ability to work (if applicable), quality of life and ability to take part in leisure activities. [28] Given that chronic pain and lack of mobility often associated with MSK are linked to higher reported incidence of depression and anxiety, it is important to consider emotional as well as physical needs. [9]

Effective management of any MSK condition includes promotion of, and support to, self-care. Self-management needs to be complemented by appropriate information and advice to signpost to relevant local services, as well as ensuring any interventions meet the needs of the individual. [29] Encouraging patients to continue

with everyday tasks as far as possible is beneficial to keep people out of hospital and improve long-term health outcomes.

NICE recommends that patients consider appropriate exercise programmes to maintain capabilities and improve muscle strength. In addition, management of pain is central to ensuring a good quality of life, and an important element of this is effective communication between patients and clinicians overseeing their care – for example, to optimise drug use (if necessary) and discuss the risks and benefits of alternative treatment interventions. [30]

6.7 Services and support available locally

6.7.1 Prevention

Interventions, programmes and services that promote and enable physical activity, a healthy diet, stopping smoking and weight management all support MSK health and prevent the onset of some conditions.

Hackney Council and the City of London Corporation both commission evidence-based stop smoking services in a range of different locations to assist people who want to quit. A number of relevant incentives are also included in the long-term conditions contract that City and Hackney Clinical Commissioning Group (CCG) holds with the local City & Hackney GP Confederation, such as smoking advice in primary care and referral to stop smoking services for patients with a range of long-term conditions.

In Hackney, the Healthier Together Hackney programme offers weight management and exercise support for eligible adults. A similar service, called City LivingWise, is provided in the City of London. In addition, various exercise classes and walking groups are available in the community, targeting some of the people who are at increased risk of poor MSK health (including older people and those living in the most deprived neighbourhoods).

At a system level, Hackney's Obesity Strategic Partnership and Tobacco Control Alliance both work with a broad range of local partners to address the social, economic and environmental determinants of obesity and tobacco related harm – including trading standards, planning, licensing, green spaces and environmental health.

Finally, in relation to prevention, both local authorities, Homerton Hospital and City and Hackney CCG have all achieved accreditation under the London Healthy Workplace Charter. [31] This provides an excellent framework for creating a healthy environment to support the prevention (and effective management) of MSK conditions in the workplace.

A more detailed discussion of local approaches to tackling key preventable risk factors for MSK can be found in the 'Lifestyle and behaviour' chapter of the JSNA, as well as in the 'Obesity' section of this chapter.

6.7.2   Identification and early intervention

As highlighted in Section 6.6.1, a major risk to further deterioration of many MSK conditions is having a fall. Staying Steady is the community falls prevention service run by Homerton Hospital and delivered to Hackney and the City patients. It provides strength and balance training on a referral basis in small community classes or in a patient's home. The service coordinates four main areas of support and intervention for people who feel unsteady on their feet, including: [32]

- home safety checks
- postural stability and light exercise classes in the community
- 24-week falls exercise programme
- outreach and training.

A number of local rehabilitation programmes (for example, for cardiac and respiratory patients) are also provided locally that include an exercise element, helping to reduce the risk/severity of MSK problems in people with other long-term conditions.

6.7.3   Treatment, care and support

The City and Hackney Locomotor Service is provided by Homerton Hospital. GPs can refer directly into the service, where an initial assessment is conducted by a physiotherapist. The service operates over a number of different sites, including within some GP practices. [33]

As part of the City and Hackney Locomotor Service, patients can also access a pain management pathway, including a multi-disciplinary team comprising a specialist consultant, psychologist and access to specialist physiotherapy.

6.8 Service gaps and opportunities

The relatively high rates of smoking and obesity locally, as well as the significant number of adults who are inactive, may be storing up a substantial future burden of poor health and disability from MSK in Hackney and the City of London.

Action which could help to address the current and future impact of MSK includes:
- greater awareness of modifiable risk factors for MSK problems among patients and the public

- ensuring that all health and care professionals are competent and confident in giving advice on the benefits of stopping smoking, eating a balanced diet and maintaining as active a life as possible
- supporting health and care professionals to identify MSK conditions as early as possible
- making the most of opportunities to improve the environment in the home and/or the workplace for people living with MSK conditions.

The new integrated commissioning approach in Hackney and the City throws up a number of opportunities to improve the prevention, early detection and management of MSK conditions locally. For example, priorities identified within the new system include the development of a programme to upskill a much wider group of frontline staff in the Making Every Contact Count (MECC) approach,[4] embedding treatment of tobacco dependence in relevant care pathways and reviewing the obesity and falls prevention pathways to better meet the needs of local people.

6.9 References

[1]   NHS England, 'Musculoskeletal conditions'. [Online]. Available: https://www.england.nhs.uk/ourwork/ltc-op-eolc/ltc-eolc/our-work-on-long-term-conditions/si-areas/musculoskeletal/. [Accessed 23 November 2017].

[2]   Arthritis Research UK, 'State of musculoskeletal health 2017', 2017. [Online]. Available: https://www.arthritisresearchuk.org/research/news-for-researchers/2017/june/state-of-musculoskeletal-health-2017.aspx. [Accessed 2 May 2018].

[3]   NHS Choices, 'Arthritis'. [Online]. Available: https://www.nhs.uk/Conditions/Arthritis/. [Accessed 24 November 2017].

[4]   NHS Choices, 'Osteoarthritis'. [Online]. Available: https://www.nhs.uk/conditions/osteoarthritis/. [Accessed 24 November 2017].

[5]   National Institute for Health and Care Excellence (NICE) Clinical Knowledge Summaries, 'Gout'. [Online]. Available: https://cks.nice.org.uk/gout. [Accessed 2 May 2018].

[6]   NHS Choices, 'Arthritis'. [Online]. Available: https://www.nhs.uk/Conditions/Arthritis/. [Accessed 24 November 2017].

[7]   National Institute for Health and Care Excellence (NICE), 'Osteoporosis: assessing the risk of fragility fracture (CG146)', updated February 2017. [Online]. Available: https://www.nice.org.uk/guidance/cg146/chapter/introduction. [Accessed 24 November 2017].

[8]   NHS Choices, 'Osteoporosis'. [Online]. Available: https://www.nhs.uk/conditions/Osteoporosis/. [Accessed 24 November 2017].

---

[4] A behaviour change approach that focuses on the interactions that organisations and frontline staff have with people to encourage and support them to make healthier choices that will promote their physical and mental wellbeing. [37]

[9]   Arthritis Research UK, 'Musculoskeletal health – a public health approach', 2014. [Online]. Available: https://www.arthritisresearchuk.org/policy-and-public-affairs/policy-reports/musculoskeletal-health-a-public-health-approach.aspx. [Accessed 2 May 2018].

[10]   Public Health England, 'Public health matters: Preventing musculoskeletal disorders has wider impacts for public health', 11 January 2016. [Online]. Available: https://publichealthmatters.blog.gov.uk/2016/01/11/preventing-musculoskeletal-disorders-has-wider-impacts-for-public-health/. [Accessed 22 November 2017].

[11]   GBD 2013 Mortality and Causes of Dealth Collaborators, 'Global, regional, and national age–sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013', *The Lancet,* vol. 385, no. 9963, pp. 117–171, 2015.

[12]   Public Health England, 'Health and work: Spotlight on musculoskeletal Conditions'. [Online]. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/618541/Health_and_work_infographics.pdf. [Accessed 24 November 2017].

[13]   Health and Safety Executive (HSE), 'Work-related musculoskeletal disorders', 2017.

[14]   S. Bout-Tabaku, M. Michalsky, T. Jenkins et al,'Musculoskeletal pain, self-reported physical function, and quality of life in the teen–longitudinal assessment of bariatric surgery (Teen-LABS) cohort', *JAMA Pediatrics,* vol. 6, no. 169, pp. 552–559, 2015.

[15]   M. Abate, D. Vanni, A. Pantalone et al, 'Cigarette smoking and musculoskeletal disorders', *Muscles, Ligaments and Tendons Journal,* vol.3, no. 2, pp. 63–69, 2013.

[16]   Health and Safety Executive, 'Musculoskeletal disorders', [Online]. Available: www.hse.gov.uk/msd. [Accessed 15 December 2017].

[17]   Public Health England, 'Musculoskeletal diseases profile'. [Online]. Available: https://fingertips.phe.org.uk/profile/msk. [Accessed 20 November 2017].

[18]   National Joint Registry, 'Bespoke data extract', 2017.

[19]   NHS England, 'NHS RightCare MSK focus pack', May 2016. [Online]. Available: https://www.england.nhs.uk/rightcare/products/ccg-data-packs/focus-packs/focus-packs-for-cancer-mental-health-and-dementia-msk-and-trauma-may-2016/. [Accessed 20 November 2017].

[20]   Arthritis Research UK, 'Musculoskeletal calculator'. [Online]. Available: https://www.arthritisresearchuk.org/arthritis-information/data-and-statistics/musculoskeletal-calculator.aspx. [Accessed 22 October 2017].

[21]   Greater London Authority, 'GLA central-trend 2016 base population projections', 2016.

[22]   NHS Digital, 'Number of patients registered at a GP practice – April 2017', 2017. [Online]. Available: https://digital.nhs.uk/catalogue/PUB23475. [Accessed November 2017].

[23]   Imperial College London (for Arthritis Research UK), 'Musculoskeletal calculator FAQ; Rheumatoid arthritis technical document'. [Online].

Available: https://www.arthritisresearchuk.org/arthritis-information/data-and-statistics/musculoskeletal-calculator/musculoskeletal-calculator-faq.aspx#how-estimated. [Accessed 20 November 2017].

[24] Clinical Effectiveness Group (CEG), 'Bespoke data extract', 2017.

[25] National Institute for Health and Care Excellence (NICE), 'Falls in older people: assessing risk and prevention (CG161)', June 2013. [Online]. Available: https://www.nice.org.uk/guidance/cg161. [Accessed 24 November 2017].

[26] National Institute for Health and Care Excellence (NICE), 'Physical activity in the workplace (PH13)', May 2008. [Online]. Available: https://www.nice.org.uk/guidance/ph13/chapter/3-considerations. [Accessed 24 November 2017].

[27] Public Health England (PHE), 'Productive healthy ageing and musculoskeletal (MSK) health', 2017. [Online]. Available: https://www.gov.uk/government/publications/productive-healthy-ageing-and-musculoskeletal-health. [Accessed 2 May 2018].

[28] National Institute for Health and Care Excellence (NICE), 'Musculoskeletal conditions overview'. [Online]. Available: https://pathways.nice.org.uk/pathways/musculoskeletal-conditions. [Accessed 22 November 2017].

[29] National Institute for Health and Care Excellence (NICE), 'Osteoarthritis: care and management (CG177)', February 2014. [Online]. Available: https://www.nice.org.uk/guidance/cg177/chapter/1-Recommendations#education-and-self-management-2. [Accessed 24 November 2017].

[30]   National Institute for Health and Care Excellence (NICE), 'Medicines optimisation in long-term pain', January 2017. [Online]. Available: https://www.nice.org.uk/advice/ktt21/chapter/Evidence-context. [Accessed 24 November 2017].

[31] Greater London Authority, 'London Healthy Workplace Charter', 2015. [Online]. Available: https://www.london.gov.uk/what-we-do/health/healthy-workplace-charter. [Accessed 2 May 2018].

[32] Homerton University Hospital NHS Foundation Trust, 'Falls prevention in Hackney," [Online]. Available: www.homerton.nhs.uk/our-services/services-a-z/f/falls-prevention-in-hackney/. [Accessed 22 January 2018].

[33] NHS City and Hackney Clinical Commissioning Group, 'Locomotor Services (physiotherapy ages 16+)', [Online]. Available: http://www.cityandhackneyccg.nhs.uk/gp/services/locomotor-services.htm. [Accessed 22 January 2018].

[34] NHS Digital, 'Antenatal assessments within 13 weeks (CCGOIS 1.13)', December 2015. [Online]. Available: https://data.gov.uk/dataset/antenatal-assessments-within-13-weeks-ccgois-1-13. [Accessed 10 November 2016].

[35] NHS Digital, 'Hospital episode statistics data interrogation systems (HDIS)', 2017.

[36] NHS Choices, 'Back pain'. [Online]. Available: https://www.nhs.uk/conditions/back-pain/. [Accessed 24 November 2017].