**Lay summary**

**Chronic shoulder pain in the United Kingdom**

Chronic shoulder pain is a common complaint that can lead to sleeping difficulties, work disability, functional limitations in daily activities and increased utilisation of health-care services. In the United Kingdom (UK), about 2.4% of patients aged between 18 and 60 years old consulted their general practitioners (GPs) for chronic shoulder pain in 2005. Chronic shoulder pain increases with age, and is more common in women than men. However, whether chronic shoulder pain prevalence has changed in the past 20 years in the UK, its variations between regions, risk factors and consequences, remain largely unknown.

Therefore, this research aims to investigate the trend of chronic shoulder pain in the past 20 years in the UK, variation between regions, use of health services, other related diseases and resultant deaths in the UK population.

**Methods**

We will use an electronic health database from 2000 to 2020 in the Clinical Practice Research Datalink (CPRD). The CPRD contains routinely collected anonymised electronic health records from general practices throughout the UK. Access to patient anonymised data within the CPRD has been approved by the Independent Scientific Advisory committee (ISAC). Chronic shoulder pain is defined as . People aged 20 or more will be eligible for this study as chronic shoulder pain is less likely to occur before this age. The frequency of shoulder pain will be calculated for each year at 1 July by people with chronic shoulder pain divided by the total number of people eligible at that time. Incidence ( new cases of shoulder pain) will be calculated for each year from 1 January to 31 December by the new cases of chronic shoulder pain during the year divided by the total number of people without chronic shoulder pain at 1 January of each year. Number of general practitioners consultations per year will be calculated per person and the average annual general practitioners consultations will be compared between people with chronic shoulder pain and those without. Similarly other diseases and death rate between the two groups will be compared too.

**Plans for disseminating and communicating study results**

The findings from this study will be presented at conferences and published in peer reviewed journals. The summary of the study findings will be shared with GPs, stakeholders, the social media, and through the Pain Centre Versus Arthritis and NIHR BRC Nottingham (Musculoskeletal theme). The CPRD will also be informed about the results of the study for dissemination on the CPRD website.

**Questions:**

1. Have you had chronic shoulder pain? Yes/No
2. What other conditions do you have? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Do you think this project is worth doing? Yes/No
4. Do you think this research will benefit patients with chronic shoulder pain, YES/No. if so, how? ­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Is there any part of this study that needs to be improved or have we missed anything that you think more important? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. To make this research meaningful to people with chronic shoulder pain and public, we would like to have your inputs from time to time (September 2022). Are you happy for us to approach you again for this purpose? Yes/No