



## **Real World Pain Outcomes and Experiences of care (MIDAS GP).**

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The authors have no competing interests to declare.

Musculoskeletal (MSK) conditions are the main drivers of non-communicable disease disability burden in most countries and regions worldwide. In England, they account for an estimated 21% of total years lived with disability, 6.2 million working days lost, 12-14% of all primary care consultations in people aged 15 years and over, and the third largest programme budget for NHS healthcare expenditure. Our MIDAS programme of research, funded by the Nuffield Foundation and Versus Arthritis, seeks to develop and evaluate a place-based system for population musculoskeletal health intelligence across North Staffordshire and Stoke-on-Trent.

The overall aim of this prospective cohort study was to investigate variation and inequalities in patient-reported outcomes and experiences of care and the type of care received by adults presenting to general practice with a non-inflammatory musculoskeletal (MSK) pain condition.

People with a range of experience of living with musculoskeletal pain conditions and using healthcare services were part of a Patient Advisory Group (PAG) for this study. Over a series of monthly meetings with researchers they contributed to how the study was designed, carried out, and reported.

In this 'real world' study we followed patients who consulted their general practice about a musculoskeletal pain condition – it includes things like low back pain, neck pain, osteoarthritis, and other pain problems which are not thought to be due to an underlying inflammatory condition like rheumatoid arthritis or gout. 30 general practices in North Staffordshire & Stoke-on-Trent were involved in the study. All adult patients consulting their GP practice for a musculoskeletal pain condition were invited to take part. Patient reported data was collected at baseline and every month for six months. Patient reported data was collected through a secure online platform (Keele Health Survey) and via paper questionnaires.

The consenting process was clearly outlined, and the participants had to agree to take part in the study and to what information (and to whom) would be shared.

The study exceeded the target number of general practices and the number of individual participants consulting with a MSK pain condition. It succeeded in including practices across all 13 target Primary Care Networks. The initial proportion of all potentially eligible patients who responded was below expectations, but follow-up was higher. The majority of potentially

eligible patients had a mobile phone registered with the practice. Of those participating, very few chose pen-and-paper questionnaire completion.

Our initial findings suggest that:

1. Consultation rates for musculoskeletal pain conditions vary two-fold between practices within the same Integrated Care System. Consultation rates are not closely related to underlying estimates of the prevalence of MSK conditions or chronic pain, raising the possibility that differences in accessibility, perceived usefulness, and availability of alternative sources of care may play a role.
2. Deprivation is strongly associated with presenting with more severe, complex problems with a poorer prognosis. Inequalities in MSK health outcomes do not appear to reduce following consultation and may even widen slightly. Patients from more deprived neighbourhoods appear more likely to be offered an opioid analgesic, and to report dissatisfaction with the consultation (although only a small proportion reported dissatisfaction on our measure).

Although data collection is complete, we are still undertaking further analyses of these data to address the study's secondary objectives, including understanding selective participation at baseline, and research questions proposed by our Patient Advisory Group.

We have presented our initial findings to scientific, clinical, and lay audiences at the national MSK data meeting and to our Patient Advisory Group who have helped us produce Plain Language Summaries of our findings.

We would like to thank the participants who consented to take part in this study, practice managers and staff at participating practices and acknowledge the contributions of the MIDAS Patient Advisory Group, Gerri Mulcahy and members of the NIHR Clinical Research Network: West Midlands, staff at MJog by Livi, and to Sarah Lawton, Clare Thompson, Steff Garvin, Jo Smith, Sarah Lewis, Rachael Heath, Jacqui Carter and the administration support staff in Keele CTU who contributed to the design and implementation of practice-based patient recruitment methods for MIDAS-GP.

You can learn more about the MIDAS GP study at [www.keele.ac.uk/MIDAS](http://www.keele.ac.uk/MIDAS)