

A photograph of a person in a light blue t-shirt lying face down on a white massage table. A therapist in a grey t-shirt is standing behind the person, with their hands on the person's back, performing a massage. The setting is a bright, modern room with large windows in the background. A blue text box is overlaid on the left side of the image.

## Effectiveness of conservative treatment for musculoskeletal conditions

Milan Mrekaj

Bupa UK Insurance

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# Bupa

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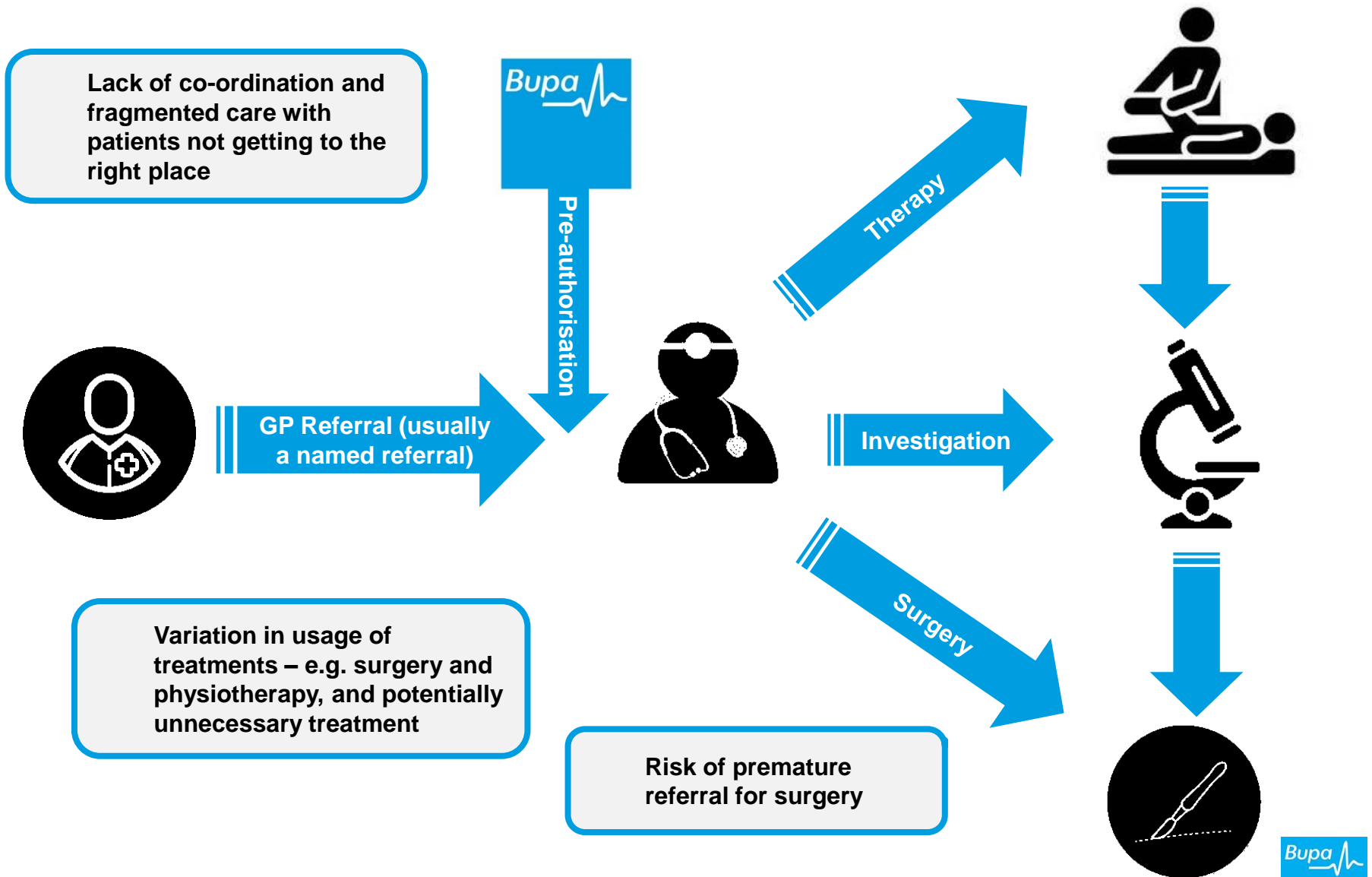
## Who are we?

- Global healthcare company – Spain, Chile, New Zealand, Australia, India, Poland, Saudi Arabia
- Globally: More than 300 clinics, 603 dental centres, 14 hospitals, 447 care homes, 36 optical centres, and 60 retirement villages
- 86,000 people who support our 32 million customers in 190 countries around the world generating £11bn revenue in 2016
- UK's largest private medical insurance company

## What is our purpose?



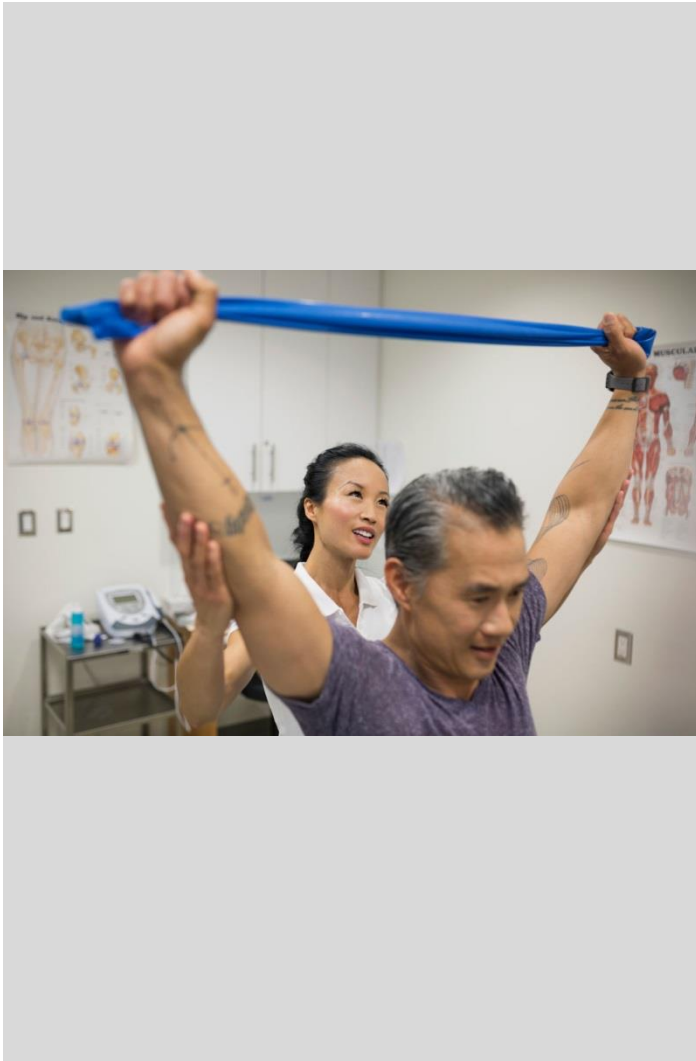
# Traditional secondary musculoskeletal pathway



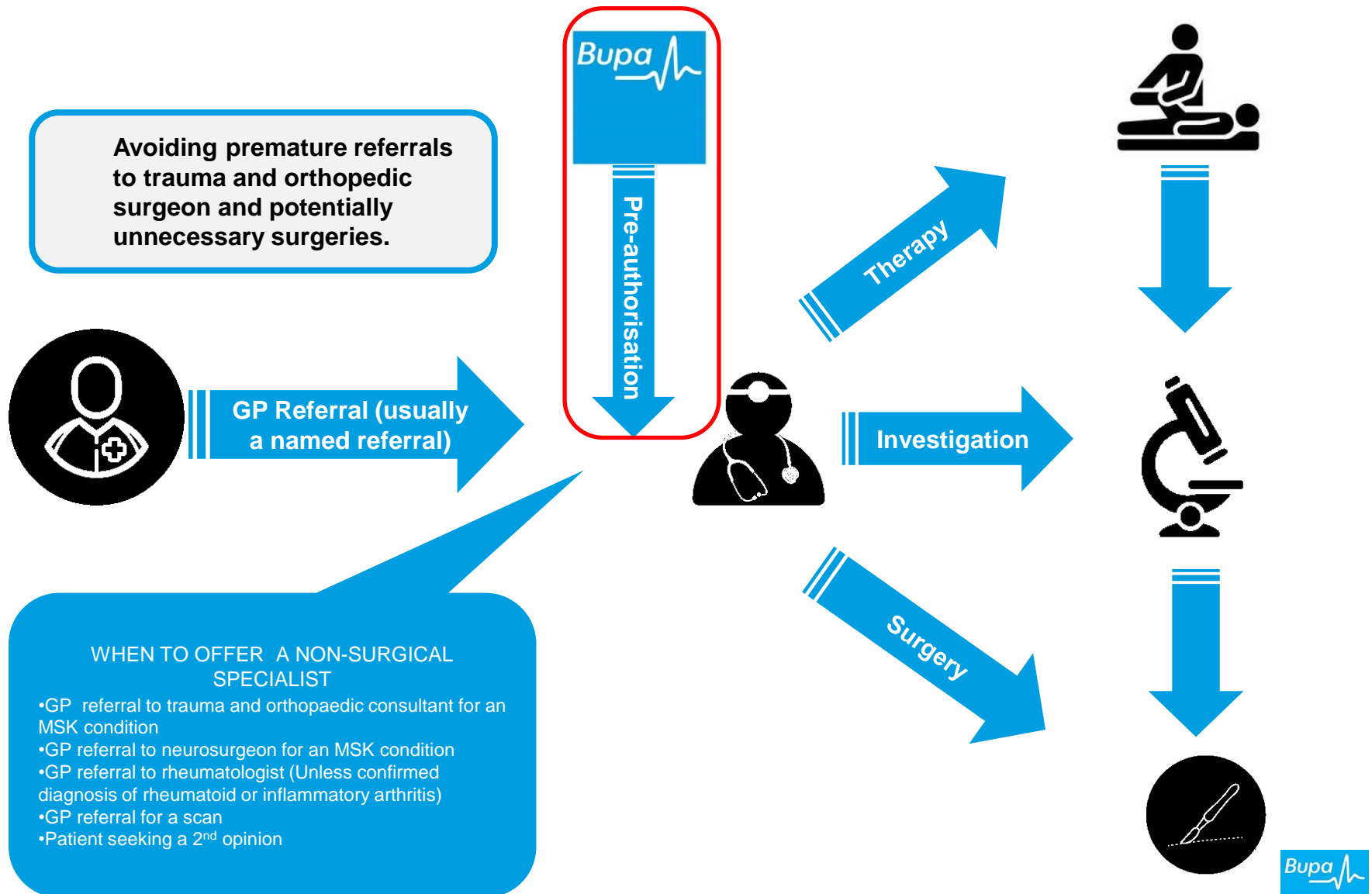
# Who are non-surgical specialists?

A care management initiative giving patients opportunity to explore their treatment options – both non-surgical and surgical – before deciding on the treatment that's right for them.

- Physicians skilled in the diagnosis and treatment of a range of muscle, joint and bone conditions ranging from acute sprains and muscle tears to long-standing joint problems, including arthritis.
- Mostly from the medical specialty of Sport and Exercise Medicine (SEM).
- They support patients by reviewing and recommending options, including alternatives to often invasive surgery, so they can make informed decisions about their treatment.



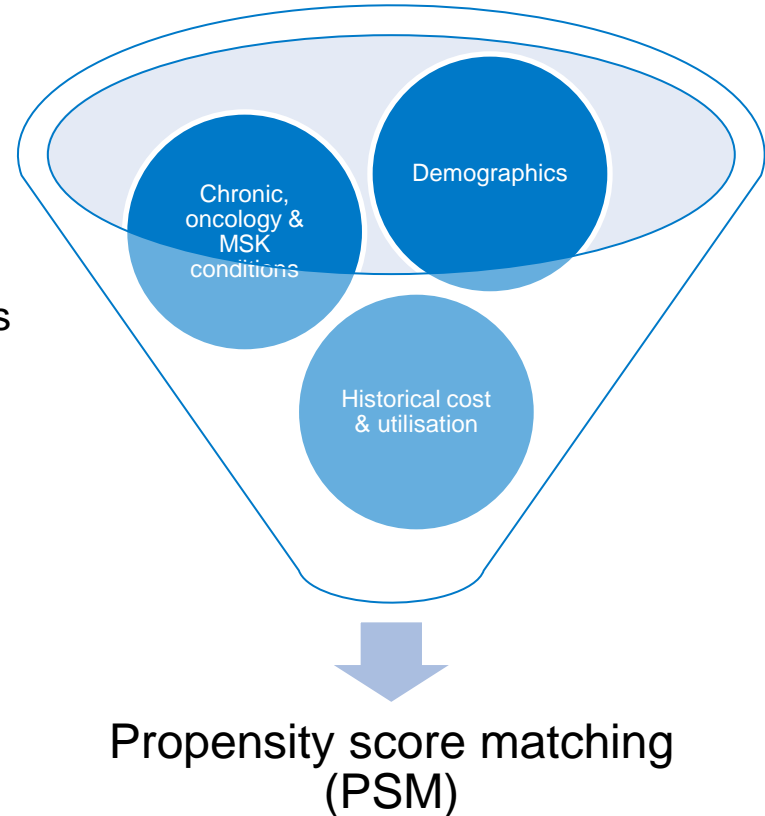
# Non-surgical specialist led pathway



# Non-surgical specialist evaluation methodology

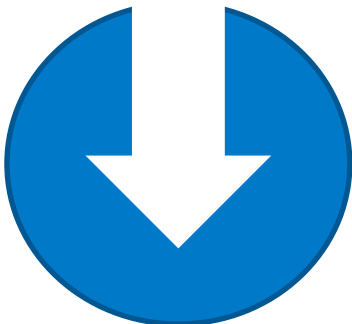
- Modelling dataset contained 21,079 patients with an non-surgical specialist appointment between May 2012 and Feb 2016.
- As an initial control group, all musculoskeletal claimants with an initial trauma and orthopaedics consultation were considered.
- Using the PSM method, 19,854 control group patients were matched with intervention group on impairment type and book of business and balanced across other characteristics.

The final step compared the cost from consultation point onwards for 12/24 months between the matched groups to calculate savings.



**Results: The MSK pathway costs for patients who go through non-surgical specialist pathways are reduced by 17%, assuming a 12 month outcome period.**

Reduction is driven by increased use of conservative treatments such as physiotherapy, and by lower surgery incidence among the patients who see non-surgical specialists.

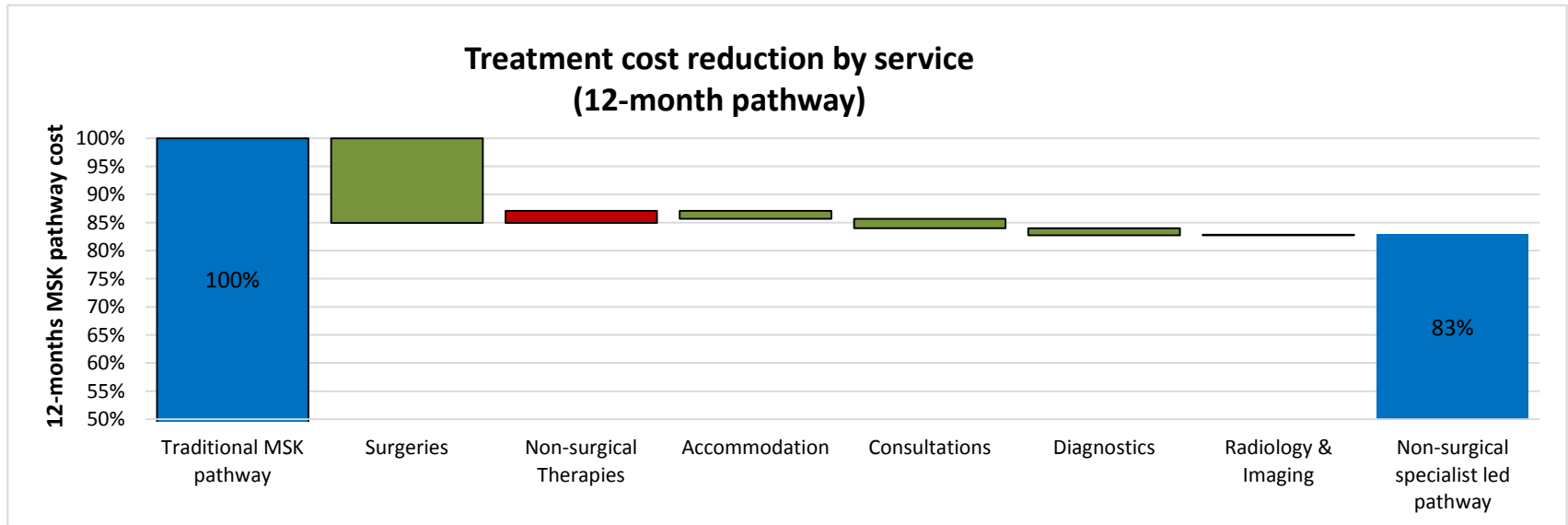


# Non-surgical specialist pathways are cost effective through reduction in surgeries

## Results:

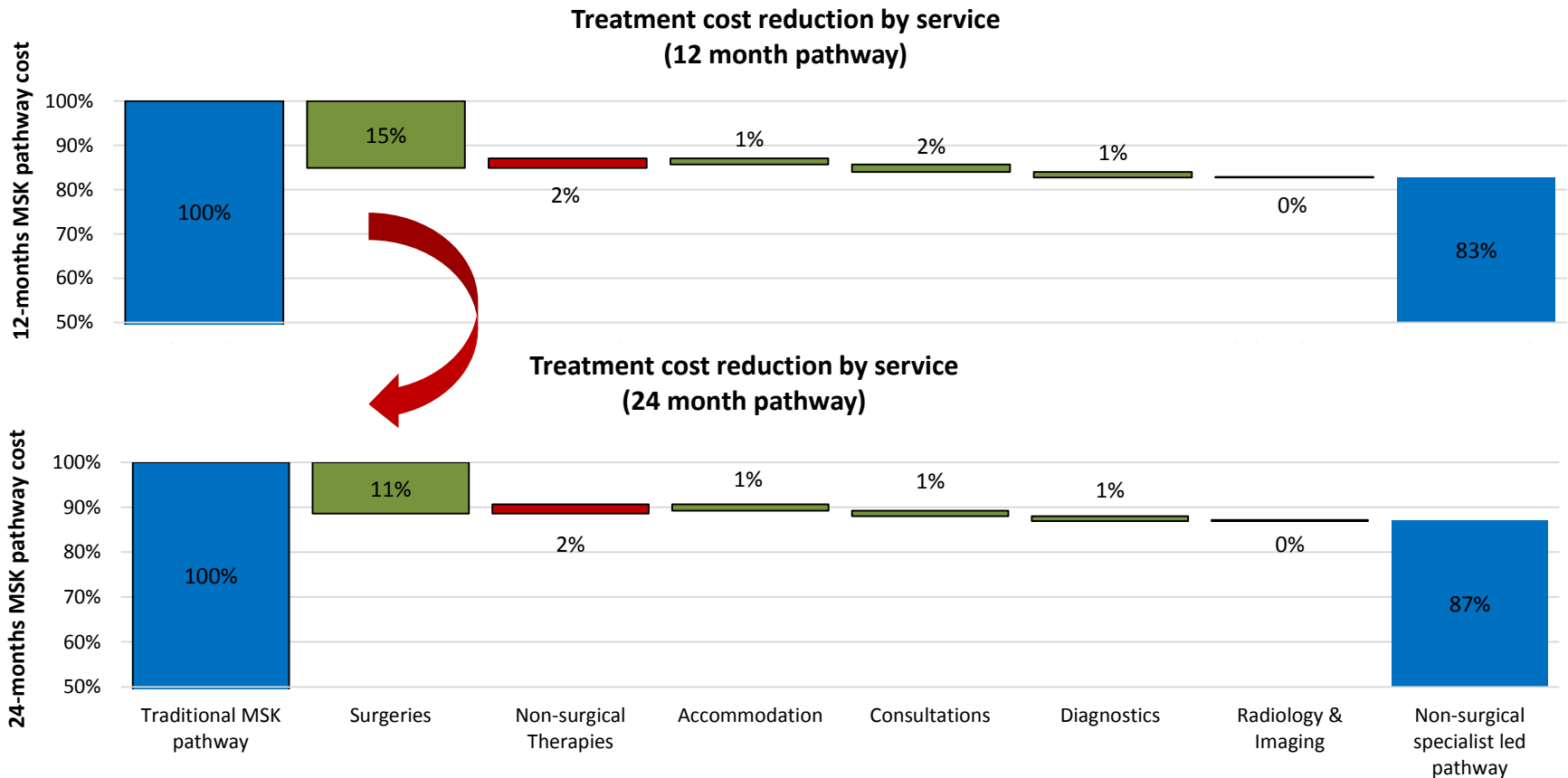
**Results: The cost of MSK pathway lowered by 17% for non-surgical specialist patients assuming 12-month pathways.**

- Pathway cost reduction is driven by patients seeing non-surgical specialists having much lower cost across surgeries, accommodation, diagnostics and consultations.
- On the other hand they have higher physiotherapy, radiology and imaging costs



# Are benefits maintained over 24-month pathways?

The benefit is maintained over 24 months, although we observe the impact has slightly reduced compared to 12 months.



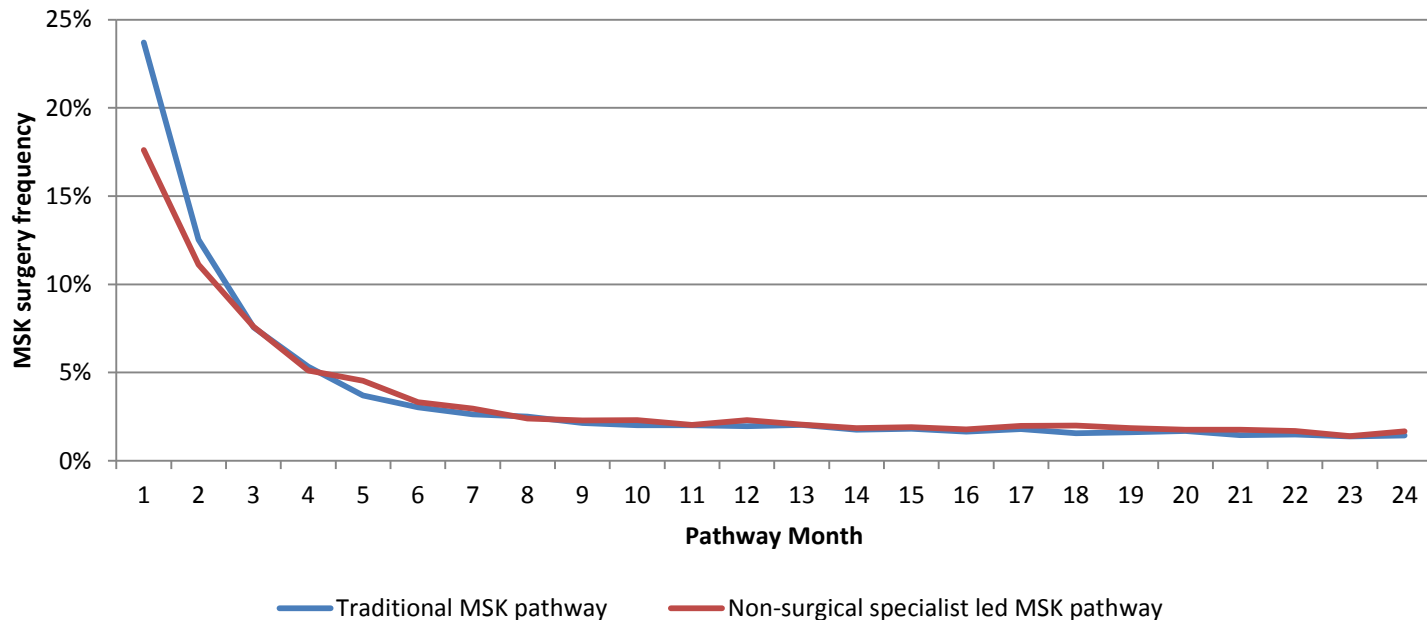


# Are benefits maintained over 24 month pathways?

## Results:

1. The lower frequency of surgery among patients who see non-surgical specialist is maintained over longer term.
2. A third of patients who start their pathway with a non-surgical specialist go on to have a consultation with a trauma and orthopaedic surgeon, and 1 in 5 would eventually have a surgery within 12 months.

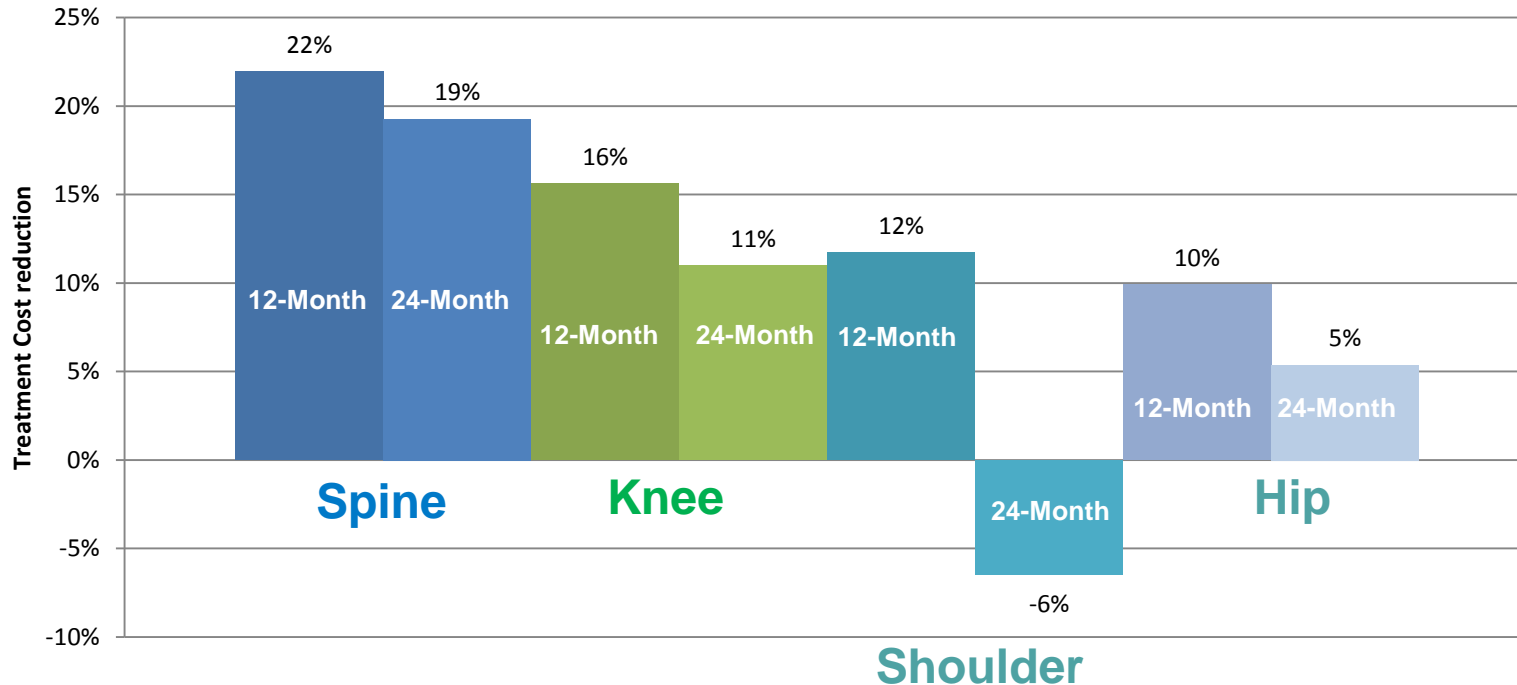
MSK surgery frequency



# Non-surgical specialist pathways by impairment group

By following patients for 24 months, rather than 12, the non-surgical specialist value is maintained for main impairment groups.

Treatment cost reduction by impairment type\*  
(12 month vs 24 month pathways)



\*Impairment group defined using ICD-9 impairment codes.



# Patients' experience

We measure the patients' feedback through Net Promoter Scores, which means we ask the patient **How likely they are to recommend the Bupa service to others, on a scale of 0-10.**

*NPS trend data (Monthly)*

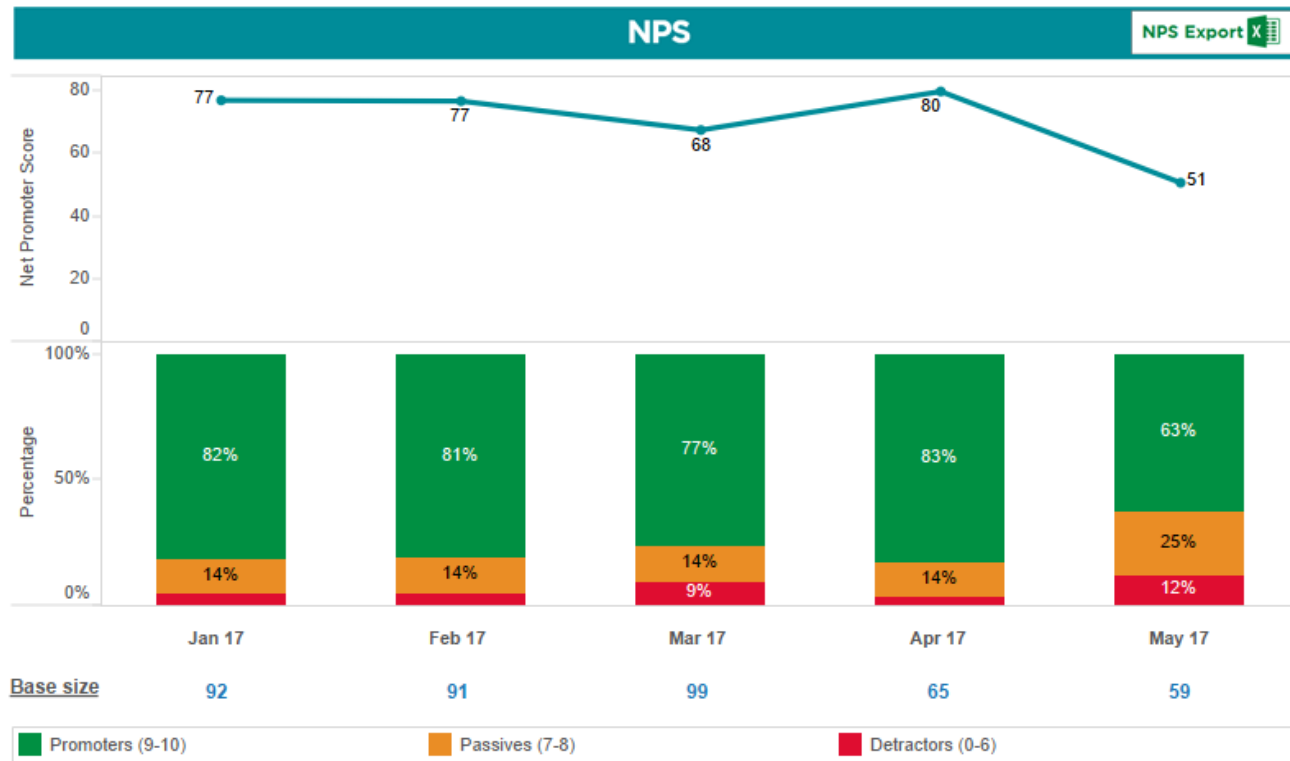
*Interact with the data using the filters below*

Service  
MSK (Musculoskeletal) consultant physician service

Type of centre  
All

Centre  
All

Month  
Multiple values



## What's important to patients?

“I was met warmly and my consultant was fantastic. He completely understood my injury and the effect it has on me. I have rarely come across such empathy.”

“It felt relaxed and supportive. I was given a number of options to choose from.”

“Very professional and knowledgeable. Keen to avoid surgery and we explored approaches.”

“Prompt and efficient. They were able to offer a treatment which, so far, has helped. I still don't know a long term prognosis.”

“Friendly, knowledgeable, professional team who were able to see me promptly, diagnose quickly and deal with my pain and problem.”

“I was a bit disappointed that I didn't come away with a diagnosis, and felt that the consultant was struggling to isolate what my problem was, and then advise accordingly.”

# Discussion

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