Active Hospitals

Final evaluation report

National Centre for Sport and Exercise Medicine and Ipsos

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Executive summary

Background

Active Hospitals is a workstream within the Moving Healthcare Professionals Programme (MHPP), led by the Office for Health Improvement and Disparities (OHID) and Sport England. It focuses on 'whole hospital' approaches to embedding the promotion of physical activity into routine care in secondary care settings.

Between May 2017 and March 2019 (Phase 1), Oxford University Hospitals NHS Foundation Trust (OUH) undertook a feasibility and acceptability pilot of a Sport and Exercise Medicine (SEM)-led 'Active Hospitals' concept. Between April 2019 and the end of August 2022 (Phase 2), four trusts have built on the initial pilot by developing and testing further approaches to the Active Hospitals concept.

The NHS Transformation Unit (NHS TU), in its role as leadership provider, has curated a Community of Practice including the four pilot sites and 20 member trusts, and developed an Active Hospitals Collaborative Forum on the FutureNHS platform to support trusts to increase levels of physical activity of patients and staff.

The evaluation

Ipsos and the National Centre for Sport and Exercise Medicine were commissioned to undertake an evaluation of Phase 2 of the MHPP in 2019, including the Active Hospitals programme. The primary evaluation objectives were as follows:

- **Implementation:** Understand the extent to which the Active Hospitals aims and objectives are met, and the barriers and enablers that contribute to this.
- **Healthcare professional (HCP) and patient outcomes:** Explore the impact of Active Hospitals on the attitudes, knowledge, confidence and behaviour of HCPs and patients in relation to physical activity.
- **Spread and sustainability:** Examine the factors required for the spread and sustainability of Active Hospitals.

The Active Hospitals evaluation was split into two stages. Stage 1 ran from March – November 2021 and involved securing a deep understanding of the different approaches being piloted across the four trusts. Stage 2 focused on compiling evidence to answer the evaluation questions and involved the following evaluation activities: 33 in-depth interviews with members of staff working across the participating trusts (including in managerial roles, clinical leads, and pathway representatives); a review of data collected by trusts; a review of relevant documentation; two in-depth interviews with three NHS TU representatives; four in-depth interviews with Community of Practice members; three interviews with patients; monthly meetings with the NHS TU; and attendance at monthly trust steering group meetings.

The pilot sites and participating pathways

The four trusts selected to participate in the Active Hospitals programme are dissimilar to each other in terms of their size, geography served and type of trust to ensure the Active Hospitals concept was piloted in a range of settings. They all serve populations with relatively high levels of deprivation and

physical inactivity. All four trusts have a historic focus on physical activity, with it featuring in trust strategies prior to involvement in the Active Hospitals programme.

The original requirement for the pilot sites was for them to pilot Active Hospitals activities within two care pathways. All four trusts have piloted the programme in more than two pathways – up to six in the case of Nottingham and Northumbria. The pathways were selected to ensure activities were piloted in a diverse range of settings, both inpatient and outpatient, and with different clinical populations. Alongside this, sites delivered activities to encourage staff to be more physically active.

The trusts and the pathways involved were as follows:

- Sheffield Children's NHS Foundation Trust: asthma (outpatients), oncology (inpatients), and pre-operative care.
- Northumbria Healthcare Trust: maternity (community), diabetes (outpatients), Parkinson's (outpatients) and an Active Ward, pre-assessment unit (outpatients), oncology day unit (outpatients).
- North Tees and Hartlepool Foundation Trust: integrated musculoskeletal (iMSK) physiotherapy (outpatients), paediatrics (outpatients), acute cardiac unit (ACU) (inpatients), and elderly care (Ward 42) (inpatients).
- Nottingham University Hospitals NHS Foundation Trust: paediatric endocrinology (outpatients), hepatobiliary (stable fatty liver clinic (outpatients) and Ward F21 (inpatients)), and prehabilitation (for colorectal surgery) (outpatients)[1]. Gestational diabetes (outpatients), and musculoskeletal (MSK) physiotherapy (outpatients) will launch in Autumn 2022.

Active Hospitals activities

There is substantial variation in the Active Hospitals activities being piloted by the four trusts (as detailed in the trust-specific chapters of this report), though they can broadly be grouped as follows:

- **Workforce:** Central to all four trusts' activities has been the training of HCPs to improve their understanding of the benefits of physical activity and build their confidence to discuss it with patients. Training has included the MHPP Physical Activity Clinical Champion (PACC) programme, the Active Conversations course on Moving Medicine, the MHPP elearning modules hosted by Health Education England, and Making Every Contact Count (MECC) training. Some of the trusts have recruited externally for specific posts to support the Active Hospitals programme (such as the exercise and physical activity therapist at Sheffield Children's), whilst others have recruited internally to nominate members of staff as health coaches (Northumbria) and physical activity champions (Northumbria, North Tees and Hartlepool) or have made internal secondments to positions (such as the Active Hospitals Delivery Manager at Northumbria).
- **Infrastructure:** All four trusts have made changes to systems and processes to facilitate Active Hospitals activities. They have made changes to electronic patient records to accommodate physical activity calculators (Northumbria), to keep record of physical activity conversations

[1] The prehabilitation pathway was initially intended to be part of the Active Hospitals project; however, it was run separately to the project activities.

(Nottingham), physical activity assessment questionnaires (North Tees and Hartlepool), and new referral forms (Sheffield Children's). They have adapted and promoted resources to support HCPs discuss physical activity (including making use of Moving Medicine and PACC patient-facing materials). The trusts have also focused on mapping and promoting services in the community that HCPs can refer or signpost patients to (for example, Movement is Medicine sessions in North Tees and Hartlepool and ABL Health in Nottingham).

- **Culture (including environment):** The trusts have looked at ways to embed the promotion of physical activity within their culture. They have considered adapting hospital environments to encourage people to move more though few examples are evident of such changes and some proposed adaptations were not implemented or delayed as they conflicted with Covid-19 social distancing rules. Nevertheless, the trusts have all placed a focus on encouraging staff to become more physically active themselves. This includes a World Run (North Tees and Hartlepool), 'Step into Spring' staff step challenge (Northumbria), keep fit competitions (Sheffield Children's), and 'Sunshine Walk' and 'Arts Trails' around the hospitals' campuses (Nottingham). Northumbria has developed an 'Active Ward' on an elderly care ward, where different forms of physical activity are promoted throughout the day.

- **Promotional:** All four trusts have been promoting their Active Hospitals activities to secure engagement and participation. This has included developing an Active Hospitals branding concept (Northumbria) which is to be deployed across the whole Active Hospitals programme in due course, and other promotional activities such as content posted on social media (North Tees and Hartlepool), presentations at all-departmental educational sessions (Sheffield Children's), and a webpage on the trust's website to promote the pilot and its activities (Nottingham).

Outputs resulting from Active Hospitals activities

A logic model was created for each of the pilot sites, depicting several measures of output which would provide early indicators of success for the Active Hospitals programme. Some of the pilot sites developed more comprehensive means of data collection and thus have more accurate records of achieved outputs. The data collected by sites is not always for all of the participating pathways at the trust and so the data should not be treated as accurate, but rather indicative.

In excess of 560 members of staff across the four pilot sites have received formal training on physical activity promotion. This figure predominately relates to PACC training, though does include some MECC training. In reality, the number of staff trained will far exceed this as training has also taken place through accessing MHPP elearning modules and colleague briefings, which are not reflected in this figure.

Across the four pilot sites, over 7,300 patients have been spoken to about physical activity. Again, the true figure will far exceed this as not all sites had mechanisms in place to capture conversations with patients about physical activity.

Over 2,900 patients were signposted to resources or support services relating to physical activity (such as leaflets and links to local services). Over 910 patients were referred to a specialist or support service to increase their levels of physical activity. This includes referrals to the exercise and physical activity therapist (Sheffield), to a health coach (Northumbria), and to Movement is Medicine sessions (North Tees and Hartlepool). These figures significantly underestimate the extent of signposting and referrals actually undertaken given some pathways, and indeed trusts, were unable to capture this data.

Outcomes and impact resulting from Active Hospitals activities

HCPs

Across the four pilot sites, the Active Hospitals programme has had the greatest impact on HCPs' awareness of the benefits of physical activity and how to broach it with patients, and their confidence to do so. The training they have received (particularly the PACC training) has been instrumental in this. Knowing where to signpost or refer patients who require more intensive support has also helped increase the confidence of HCPs to broach the topic of physical activity.

There is some evidence to suggest that conversations about physical activity are now more routinely happening with patients, and that these conversations are of a better quality and/or more productive, though this impact was not universally achieved across the participating pathways. Again, the training received by HCPs has helped physical activity promotion to become more routine but so too have changes to IT infrastructure which help prompt HCPs to consider their patients' physical activity needs. There are indications that more work is needed to ensure these conversations are taking place consistently across all HCPs within pathway teams.

The Active Hospitals programme has not appeared to impact on the physical activity levels of staff working in the participating pathways. Many of those interviewed stated they were physically active before the Active Hospitals programme and thus there was little improvement to be made, or that they themselves found it difficult to meet the recommended levels of physical activity set out in the national guidance.

Patients

Staff from all four pilot sites were able to provide anecdotal evidence of patients becoming more physically active following conversations about, and support with, increasing their physical activity. The evidence in support of this intended impact is weak, and not directly attributable to the Active Hospitals programme, but it is indicative that patients may be benefitting from the increased focus on physical activity at the pilot sites. HCPs provided examples of patients reporting better aerobic fitness, reduced pain, slowed deconditioning, improved mental health/mood, better management of fatigue, and greater enjoyment of physical activity.

Acceptability of Active Hospitals activities

Broadly, the Active Hospitals activities have been well received by staff working in the four pilot trusts, with a recognition of the benefits of physical activity on patient outcomes and wellbeing. Not all HCPs are engaged to the same extent with the pilot – some are less interested in the topic of physical activity, and others' involvement has been constrained by capacity issues, though there was very little reported resistance to the pilot. Many staff working outside of the pilot pathways have expressed an interest in the initiative, stating a desire for similar interventions in their own specialism.

Patients' response to Active Hospital activities varied more so than HCPs' response. Some were willing to engage on the topic of physical activity, whilst others (particularly those who are obese or frail) were more reticent to discuss it or receive support to become more physically active. It was suggested this variance may relate to the extent to which the physical activity advice was tailored to the needs of the patients (for example, Northumbria found patients on the Active Ward were very receptive to advice when carefully tailored).

Implementation

The trusts identified a number of enablers which supported the implementation of Active Hospitals activities. These were:

- Senior endorsement for the pilot which has helped it remain a priority for the trusts.
- Buy-in from clinical leadership which helped with the co-production of pilot activities and to garner enthusiasm and support for new ways of working among pathway staff.
- A pre-existing familiarity with the promotion of physical activity which ensured the pilot activities built on a foundation of willingness to discuss the topic with patients.
- Infrastructure changes which helped embed pilot activities, such as adapting clinical software to include prompts to discuss physical activity and facilitate referrals.
- The Covid-19 pandemic, whilst presenting many challenges, also facilitated remote working and an ability to convene busy clinicians working across different sites in a way that would have been challenging pre-pandemic.

An absence of many of the enablers discussed above were perceived as presenting barriers to implementation in the pilot trusts. In addition, the Covid-19 pandemic had a considerable impact on a range of pilot activities, including sites having to alter their priorities, staff being redeployed, wards being repurposed as Covid wards, and promotional activities curtailed as deemed ‘non-critical’. Capacity issues (irrespective of the pandemic) also led to delays in implementation for some trusts, and an inability for staff members to take time away from their day job to attend training. Finally, many community physical activity options stopped and did not return in the same form, reducing the referral options available.

The pilot trusts identified a number of success factors, key to implementing the aims and objectives of the Active Hospitals programme:

- Ensure early buy-in from clinical leads, as well as core teams responsible for enacting implementation and delivery activities.
- Select the quick wins to setup and establish activities, drawing on those professions most aligned with promoting physical activity within secondary care.
- Utilise infrastructure within pathways to underpin, remind and support HCPs to routinely carry out activities and encourage behaviour change.
- Be flexible in how to approach change to reflect the different capacity needs and restraints of different pathways.

Community of Practice and supporting resources

The Community of Practice set out to achieve an action learning approach across trusts. Generally, it was very well received by participating members. There was evidence of trusts forging working relationships as a result of the Community of Practice. In some cases these transcended the Community of Practice itself, with pairs of trusts who have met via the Community of Practice meeting regularly to discuss their progress and share solutions. While this is beneficial to those trusts involved, an

unanticipated consequence of these strong relationships is that the online platform (FutureNHS) has been used less; trusts would rather go directly to their contacts for support, than seek this support online.

There was evidence that the Community of Practice helped to keep trusts motivated to continue their work on physical activity during challenging circumstances. Multiple trusts mentioned that hearing other trusts were facing challenges – even those that had received the Active Hospitals funding – helped them to persevere through their own challenges. Finally, there was evidence that as well as providing motivation and support, trusts had also provided each other with solutions and ideas of how to embed physical activity promotion into routine practice.

Sustainability

Discussions are ongoing presently between OHID, Sport England and other bodies to determine next steps for the Active Hospitals programme. The recommendation for the continuation, and growth, of Active Hospitals as put forward by the NHS TU is for OHID to secure funding for a centralised post to deliver and manage the Active Hospitals programme on four priority areas: the Active Hospitals Collaborative Forum (ensuring it is updated and maintained over time); accreditation (developing and maintaining an accreditation scheme for trusts to become an 'Active Hospital'); branding (supporting the use and management of the Active Hospitals branding developed by Northumbria); and the Community of Practice (managing the Community of Practice and supporting trusts to become 'active' through it). The NHS TU have also recommended the knowledge of the project leads across the four pilot sites is harnessed either in an advisory capacity or through recruited roles.

All four pilot sites have the ambition of continuing their Active Hospitals activities. The trusts are presently drafting business cases to secure alternative funding in support of their activities. Sheffield Children's are looking to fund at least one exercise and physical activity therapist, Northumbria wish to permanently recruit an Active Ward Champion to roll out the Active Ward model across the trust and North Tees and Hartlepool are looking to retain their project manager role as are Nottingham. The possible sources of further funding, as articulated by the pilot sites are: internal trust funding (though this funding route was considered to be the least likely for longer-term funding arrangements, though short-term funding could be provided to permit continuity of activity); charities aligned to trusts; ICSs/ ICBs; and other sources such as HEE.

In the absence of additional funds, there are a number of facets of the Active Hospitals programme which will remain. These include: the benefits realised as result of HCPs attending training about physical activity promotion; amended trust strategies which place a greater focus on physical activity; Active Hospitals responsibilities which have been incorporated into permanent job roles; physical adaptations to wards and hospital spaces; and amends made to electronic data management systems to prompt physical activity discussions.

The following are perceived as being key to sustaining Active Hospitals activities beyond the end of the funding period: senior engagement and support for the Active Hospitals activities; the involvement of multi-disciplinary teams meaning a shared agenda is more sustainable; passionate individuals to spearhead activities; good data collection to support the continuation of Active Hospitals activities; and the requirement for minimal funding.

Transferability

Broadly speaking, the Active Hospitals activities were deemed to be highly transferable to other pathways within the pilot trusts. Indeed, some of the trusts have already rolled out elements of the Active

Hospitals programme to further pathways, or have plans to do so. It was acknowledged that some Active Hospitals activities would need to be adapted to suit the specific requirements of different pathways and teams, though were still considered 'transferable'.

There is no evaluation evidence which suggests the Active Hospitals activities being piloted by the four pilot sites are specific to those trusts only and cannot transcend trust boundaries. Indeed, there is evidence to the contrary, with trusts from the Community of Practice incorporating or adapting facets of the Active Hospitals approach into their own setting.

The selection criteria for the four pilot sites means the Active Hospitals activities have been piloted in a range of settings and thus this increases the likelihood that similar activities could be employed in other trusts around the country. However, the four pilot sites have all had a historic focus on physical activity, with it featuring in trust strategies and population health approaches prior to the pilot. It could therefore be theorised that the Active Hospitals initiative could be less transferable to trusts that have not previously had a strategic focus on physical activity and the backing from senior leaders.

Conclusions

Key findings from the evaluation of the Active Hospitals programme are as follows:

- The Active Hospitals programme has positively impacted on HCPs awareness of the benefits of promoting physical activity and their confidence to do so. This is the clearest impact of the programme. To a lesser extent, though still observable through qualitative data, is an increase in the frequency of conversations with patients to promote physical activity and, in some cases, better quality conversations. Anecdotal evidence is available which suggests patients have benefitted from conversations about physical activity and some are more active as a result though the evaluation evidence is not conclusive in this regard.

- The Community of Practice has proved an effective means through which to connect trusts working on embedding the promotion of physical activity and has been a welcome addition to the programme.

- Good data collection is essential to demonstrating the worth of the Active Hospitals programme. Whilst the data collected by the pilot sites suggests reasonably high numbers of staff and patients have been engaged in the Active Hospitals programme, the numbers significantly under-estimate the reach of the programme due to challenges in data capture. Moving forward, Active Hospitals should consider if, and how, data could be collected to evidence patient outcomes as a result of the Active Hospitals activities more comprehensively.

- Proving to be important implementation enablers and contributors to the sustainability of Active Hospitals activities are: senior engagement and support; the involvement of multi-disciplinary teams; early buy-in from clinical leads; passionate individuals to spearhead activities (particularly those with a pre-existing interest in physical activity); a flexible approach to change; and infrastructure changes to embed activities.

- There is good momentum in each of the pilot sites to continue with Active Hospitals activities. All sites are seeking further funding to aid their continuation or growth, though aspects of the programme have already become embedded as business as usual and will continue irrespective of whether further funds are secured or not.

- The four trusts have piloted a diverse range of activities to embed the promotion of physical activity. There are good indications to suggest that Active Hospitals activities are transferable to non-participating pathways in the pilot sites, but also more broadly to trusts not involved in the pilot. The four pilot sites have however had a historic focus on physical activity meaning other trusts without such a focus may not have the same endorsement of the programme and its aims.

1 Introduction and evaluation methods

1.1 Overview of Active Hospitals

Active Hospitals is a workstream within the Moving Healthcare Professionals Programme (MHPP), led by the Office for Health Improvement and Disparities (OHID) and Sport England. It focuses on 'whole hospital' approaches to embedding the promotion of physical activity into routine care in secondary care settings. A key ambition for the programme has been to go 'beyond the conversation' and to embed physical activity meaningfully into secondary care systems and processes. The programme Theory of Change for Active Hospitals can be found in the appendix to this report.

Between May 2017 and March 2019 (Phase 1), Oxford University Hospitals NHS Foundation Trust (OUH) undertook a feasibility and acceptability pilot of a Sport and Exercise Medicine (SEM)-led 'Active Hospitals' concept. Between April 2019 and the end of 2022 (Phase 2), four trusts are building on this initial pilot by developing and testing further approaches to the Active Hospitals concept. The four trusts selected to participate in the Active Hospitals programme were:

- Sheffield Children's NHS Foundation Trust (Sheffield Children's);
- Northumbria Healthcare NHS Foundation Trust (Northumbria);
- North Tees and Hartlepool Foundation Trust (North Tees and Hartlepool); and
- Nottingham University Hospitals NHS Foundation Trust (Nottingham).

The NHS Transformation Unit (NHS TU) was commissioned by OHID in its role as leadership provider to undertake the management, further development and testing of the Active Hospitals programme. As part of its remit, the NHS TU launched a Community of Practice with 24 member trusts to bring together organisations interested in increasing physical activity levels in secondary care clinical pathways. The NHS TU, working with the four pilot sites, developed an Active Hospitals Collaborative Forum (in addition to the toolkit created by OUH and available on the Moving Medicine website[2]), available on the FutureNHS platform, to support trusts to increase levels of physical activity.

1.2 Active Hospitals objectives

The objectives were for the four Active Hospitals, in partnership with OHID, Sport England and the NHS TU to:

- Co-create model(s) of care, using evidence, insight and the pilot sites' own expertise, that will provide an end-to-end customer journey for patients, which will support them to become, and stay, physically active;
- Develop the customer journey for patients for at least two clinical care pathways per trust;

[2] https://movingmedicine.ac.uk/active-hospitals/

- Design a service blueprint (who needs to do what, and what needs to be in place for the pilot to be successful, at all stages of the model);
- Utilise the COM-B behaviour change theory to underpin intervention development and identification of the behaviour change techniques required; and
- Identify any additional requirements for successful local delivery.

1.3 Evaluation objectives

Ipsos and the National Centre for Sport and Exercise Medicine were commissioned to undertake an evaluation of Phase Two of the MHPP in 2019, including the Active Hospitals programme.

The primary aims of the Active Hospitals evaluation were as follows:

- **Implementation:** Understand the extent to which the Active Hospitals' aims and objectives are met, and the barriers and enablers that contribute to this.
- **Healthcare professional (HCP) and patient outcomes:** Explore the impact of Active Hospitals on the attitudes, knowledge, confidence and behaviour of HCPs and patients in relation to physical activity.
- **Spread and sustainability:** Examine the factors required for the spread and sustainability of Active Hospitals.

Please note, a full list of the evaluation questions can be found in the appendix.

1.4 Purpose of this report

This report concludes the evaluation activities for the Active Hospitals programme. It provides findings on the achievements of each of the pilot sites, while reflecting more broadly on implementation lessons and consequences for sustainability across the four sites.

This report has been co-developed by Ipsos and the National Centre for Sport and Exercise Medicine based on independent evaluation evidence. It has been reviewed by OHID with clarity added where required.

1.5 Evaluation methods

The Active Hospitals evaluation was split into two stages. Stage 1 ran from March – November 2021, and involved securing a deep understanding of the different approaches being piloted across the four pilot sites. This involved: 23 in-depth interviews with members of staff working across the pilot sites; a document review of relevant documentation including project plans and progress updates; monthly meetings with the NHS TU; and attendance at the monthly steering group meetings between the NHS TU and trusts. Please refer to the Stage 1 report for greater detail on national activities, the programme's theory, and rationale behind the programme's Theory of Change.

Stage 2, the focus of this report, compiled evidence to answer the evaluation questions. It involved the following evaluation activities:

- **In-depth interviews with trust representatives:** 33 in-depth interviews have been conducted across the four pilot sites. These interviews have been with project managers, clinical leads and others with insight into the implementation and impact of Active Hospitals activities. A more

detailed profile of those interviewed can be found in the appendix. Where trusts were implementing activities in more than three clinical pathways, a decision was made to focus the interviews on two specific pathways rather than all pathways to build an in-depth understanding of them. The decision-making criteria for the selection of pathways is included in the appendix.

- **Review of data collected by trusts:** an evaluation data template was created for each of the trusts, tailored to their particular activities though with commonality between the trusts where possible. This template set out the suggested data for the pilot sites to collect for evaluation purposes; it was co-designed with each pilot site. The data collected by each trust was shared for the purposes of the evaluation. Where trusts have collected data in addition to what was requested by the evaluation team, this data has also been included for analysis as relevant.

- **Document review**: Relevant documentation associated with each trust has been reviewed including project plans, data collection plans, and monthly progress updates.

- **In-depth interviews with NHS TU:** Two in-depth interviews have been conducted with three representatives from the NHS TU who have worked closely on the workstream.

- **In-depth interviews with Community of Practice members:** All 20 members of the Community of Practice (aside from the four Active Hospitals) were approached by the NHS TU to invite them to participate in the evaluation. Four in-depth interviews have been completed with member trusts of the Community of Practice.

- **In-depth interviews with patients:** three patients were interviewed; all of whom had been a recipient of Active Hospitals activities. Recruitment packs were distributed to patients by the four pilot sites. Individuals who were interested in participating in the evaluation were asked to contact Ipsos directly to arrange a telephone interview.

- **Regular meetings each month with the NHS TU and attendance at trusts' monthly steering group meetings** to hear updates on progress.

Research and Development (R&D) leads at each pilot site and the Health Research Authority (HRA) were consulted to determine the level of ethical approval required for the evaluation activities. The HRA advised the activities did not constitute research but rather service evaluation. The Active Hospitals evaluation received ethical approval from Sheffield Hallam University's ethics board (reference ER39313831, 24/02/2022). All participants provided informed consent prior to taking part in any evaluation activities.

All fieldwork took place between March and July 2022.

2 Pilot sites and pathways

This chapter provides an overview of the profile of the four pilot sites participating in the Active Hospitals programme and summarises the main types of activity undertaken across the sites to encourage the promotion of physical activity in routine clinical practice.

2.1 The pilot sites

Further detail on the profile of the four pilot sites can be found in the Stage 1 report, though key feature of the trusts include:

- Variation in size, with Sheffield Children's and Nottingham serving large populations compared to Northumbria and North Tees and Hartlepool.
- A range of geographies including predominantly urban, and predominantly rural, areas.
- A mix of integrated acute and community trusts (Northumbria, North Tees and Hartlepool), an acute teaching trust (Nottingham), and a double-integrated trust (Sheffield Children's). Sheffield Children's is the only dedicated children's trust, though paediatric pathways are involved at the other trusts.
- All four trusts have a historic focus on physical activity, with it featuring in trust strategies and population health approaches.
- Northumbria, North Tees and Hartlepool and Nottingham all serve populations with higher levels of inactivity among adults compared to the England average.
- All four trusts serve populations with relatively high levels of deprivation – particularly so for North Tees and Hartlepool and Nottingham.

2.2 The participating pathways

Each of the four trusts selected a number of pathways to pilot their Active Hospitals activities, as follows:

- Sheffield Children's: asthma (outpatients), oncology (inpatients), and pre-operative care. All of the pathways went live in May 2021.
- Northumbria: maternity (community) went live in October 2020, diabetes (outpatients) went live in October 2021, Parkinson's (outpatients) went live in October 2021, an active ward which was live from April 2021 – June 2022, pre-assessment unit went live October 2021, oncology day units (October 2021).
- North Tees and Hartlepool: musculoskeletal (MSK) physiotherapy (outpatients) – went live in March 2021; paediatrics (outpatients) – went live in June 2021 (but subsequently stopped in January 2022); Acute Cardiac Unit (ACU) (inpatients) and Elderly Care (Ward 42) (inpatients) – both went live in October 2021.
- Nottingham: paediatric endocrinology (outpatients) – went live in February 2022, hepatobiliary (stable fatty liver clinic (outpatients) – went live in April 2022, and Ward F21 (inpatients)) – went live in August 2022. Gestational diabetes (outpatients) and musculoskeletal (MSK) physiotherapy (outpatients) are both planned to launch in the Autumn 2022.

Pathways were typically selected for the following reasons:

- To ensure activities were piloted in a diverse range of settings, both inpatient and outpatient clinics were selected, with different clinical populations.
- As patients passing through these pathways stand to benefit the most from being more physically active.
- As clinicians working on these pathways were particularly supportive of the pilot.

2.3 Overview of Active Hospitals activities

Though there is substantial variation in the Active Hospitals activities being piloted by the four pilot sites, there are some commonalities as indicated in the overarching programme Theory of Change. These can be grouped as follows:

- **Workforce:** Central to all four trusts' activities has been the training of HCPs to improve their understanding of the benefits of physical activity and build their confidence to discuss it with patients. Training has included the MHPP Physical Activity Clinical Champion (PACC) programme, the Active Conversations course on Moving Medicine, the MHPP elearning modules hosted by Health Education England, and Making Every Contact Count (MECC) training. 16 staff members across the trusts have been trained to become PACCs themselves and will deliver the PACC training to other colleagues within the trust. Some of the trusts have recruited externally for specific posts to support the Active Hospitals programme (such as the exercise and physical activity therapist at Sheffield Children's, and the Active Hospitals Delivery Manager at Northumbria), whilst others have recruited internally to nominate members of staff as health coaches (Northumbria) and physical activity champions (Northumbria, North Tees and Hartlepool).
- **Infrastructure:** All four trusts have made changes to systems and processes to facilitate Active Hospitals activities. They have made changes to electronic patient records to accommodate physical activity calculators (Northumbria) and to keep record of physical activity conversations (Nottingham), physical activity assessment questionnaires (North Tees and Hartlepool), and new referral forms (Sheffield Children's). They have adapted and promoted resources to support HCPs discuss physical activity (including making use of Moving Medicine and PACC patient-facing materials). The trusts have also focused on mapping and promoting services in the community that HCPs can refer or signpost patients to (for example, Movement is Medicine sessions in North Tees and Hartlepool, and ABL Health in Nottingham).
- **Culture (including environment):** The trusts have looked at ways to embed the promotion of physical activity within their culture. They have considered adapting hospital environments to encourage people to move more though few examples are evident of such changes, and some proposed adaptations were not implemented as they conflicted with Covid-19 social distancing rules. Nevertheless, the trusts have all placed a focus on encouraging staff to become more physically active themselves. This includes a World Run (North Tees and Hartlepool), 'Step into Spring' staff step challenge (Northumbria), keep fit competitions (Sheffield Children's), and 'Sunshine Walk' and 'Arts Trails' around the hospitals' campuses (Nottingham). Northumbria has developed an 'Active Ward' on an elderly care ward, within which different forms of physical activity are promoted throughout the day.
- **Promotional:** All four trusts have been promoting their Active Hospitals activities to secure engagement and participation. This has included developing an Active Hospitals branding concept

(Northumbria) which is to be deployed across the whole Active Hospitals programme in due course, and other promotional activities such as content posted on social media (North Tees and Hartlepool), presentations at all-departmental educational sessions (Sheffield Children's), and a webpage on the trust's website to promote the pilot and its activities (Nottingham). In May 2022, Tyne Tees filmed a segment within the Active Ward (Northumbria) focusing on the activities being conducted as part of the pilot and including interviews with both patients and staff. The segment was broadcast on regional ITV news on 22 May 2022.

2.4 Evaluation findings for each of the Active Hospitals pilot sites

A separate chapter in this report is dedicated to each of the pilot sites to present an overview of their Active Hospitals activities, key outputs, outcomes and impact. The evaluation questions of relevance in these trust-specific chapters are:

- What is the impact of each model[3] on HCP behaviour?
- What is the impact of each model on patient behaviour?
- What is the HCP and patient experience of being involved in the different models?
- What is the acceptability of the different models, to patients and HCPs?

[3] This wording was originally used in the evaluation Invitation to Tender and references the different approaches taken by each trust

3 Sheffield Children's NHS Foundation Trust

This chapter examines the work of Sheffield Children's NHS Foundation Trust.

3.1 Summary of approach

The ambition of Sheffield Children's is that the trust plays a key role in a city-wide approach to increasing physical activity. Three pathways are participating in the Active Hospitals programme: asthma (outpatients), oncology (inpatients), and pre-operative care. All three pathways went live in May 2021. A wide variety of different activities are happening both within these pathways, and across the hospital, in relation to Active Hospitals. Central to these activities has been the recruitment of a dedicated exercise and physical activity therapist who has multiple consultations with patients referred from the participating pathways. A logic model which summarises the Active Hospitals programme at Sheffield Children's can be found in the appendix of this report.

Sheffield Children's stands apart from the other pilot sites in that it is one of only three dedicated children's NHS trusts in the country. It is also a double-integrated trust, with both physical and mental health and acute and community working together in the same organisation.

The Active Hospitals activities pull together work aimed to increase physical activity that has been taking place at the trust over the last few years. It is also notable that Sheffield has a particular focus on increasing physical activity levels through its city-wide public-health programme, Move More. The trust also has strong links with the National Centre for Sports and Exercise Medicine (NCSEM), and the Advanced Wellbeing Research Centre (AWRC) at Sheffield Hallam University.

3.2 Underpinning principles

A number of principles underpin the Active Hospitals activities being undertaken at Sheffield Children's. These are:

- **A whole systems approach:** The organisational strategy and culture at Sheffield Children's emphasises the importance of providing holistic support to children. Encouraging physical activity is one part of this approach which also gives consideration to the context of an individual's family and community.
- **Working in partnership:** The ethos at Sheffield Children's is that encouraging physical activity does not stop at the hospital boundaries. Fundamental to the Active Hospitals activities at this site is the drive to work in partnership with other organisations, for example through working with active travel groups to encourage more active means of travelling to and from the hospital.

3.3 Evaluation activities

Stage 1 of the evaluation involved: interviews with eight members of staff involved in implementing the Active Hospitals activities (June – July 2021); a review of programme documentation and data collected; regular attendance at the monthly steering group meetings with the NHS TU; and a review of the draft logic model and evaluation data collection activities specific to Sheffield.

The following evaluation activities have been completed with Sheffield Children's as part of Stage 2:

- Interviews with nine members of staff including the exercise and physical activity therapist, two individuals in managerial roles, two clinical leads for the participating pathways, and four further clinical-facing representatives from each of the participating pathways. These took place in March – June 2022.

- Review of data collected by the trust. This data captured intended outputs from the Active Hospitals activities such as the number of HCPs trained. This data also includes the staff survey administered by Sheffield Children's on the topic of physical activity. The 'pre' survey was completed by 125 staff across the trust in February – March 2021, before the pathway changes went live. The 'post' survey was completed by 81 members of staff in June 2022. Thirty staff members completed both surveys. Descriptive analysis was undertaken by the NHS TU.

- Interviews with two patients (or their care givers) who have participated in sessions with the exercise and physical activity therapist. Sheffield also provided anonymous feedback from 15 patients (or their families) for inclusion in the evaluation.

- Regular attendance at monthly steering group meetings with the NHS TU.

3.4 Active Hospitals activities

Outlined below are the main activities being undertaken by Sheffield Children's as part of the Active Hospitals programme. This list has been updated since it was first presented in the Stage 1 evaluation report.

Table 3.1: Summary of Active Hospitals activities at Sheffield Children's

Activity type	Pathway	Intervention
Workforce	All	Recruitment of an exercise and physical activity therapist that patients are referred on to for support to become more physically active
	None	Recruitment of a community-based exercise and physical activity therapist (outside of Active Hospitals programme but replicating the role of the exercise and physical activity therapist)
	Oncology	Recruitment of an exercise assistant (outside of Active Hospitals funding) to conduct home visits and school visits for oncology patients
	All	Coaching and training of HCPs to alert them to the new referral pathway, and upskill them to promote physical activity
	All	Sharing learning and training nationally on the promotion of physical activity
Infrastructure	All	Referral and assessment form added to Electronic Document Management System to facilitate the new referral pathway
	All	Adaptation of Moving Medicine and PACC resources to suit the paediatric setting
	All	Establish links into the community for resources and services to support patients and families
	All	Promote physical activity through My Planned Care (an online portal containing information on how to stay healthy whilst waiting for treatment or surgery)
Promotional	All	Raising awareness of, and engagement with, Active Hospitals through activities such as presentations at all-departmental education sessions
	All	Link Active Hospitals to city-wide initiatives such as Beat the Street
Culture (including environment)	All	Environmental adaptations to encourage physical activity in the hospital such an interactive space on an oncology ward where animated animals move along the wall for children to follow
	All	Activities for staff to be more active such as keep fit competitions between staff.

The activities being undertaken at Sheffield Children's are expanded upon below.

Workforce

- **Recruitment of an exercise and physical activity therapist:** Sheffield Children's appointed the country's first paediatric exercise and physical activity therapist (in post from March 2021 until March 2023). The decision was made that an additional role with dedicated responsibilities to increasing the physical activity levels of patients was required for the work to be sustainable in the long run. HCPs from the participating pathways refer children to the exercise and physical activity therapist. The first consultation with the therapist involves a physical activity assessment which informs the subsequent care provided – patients can see the therapist face-to-face or online, 1:1 for up to eight sessions of exercise therapy over which time they are supported to increase their physical activity levels. If children (and their families) require less intensive support, they are signposted to resources and support services to help them to become more physically active. Upon discharge, where possible, the therapist writes to the referring HCP to inform them of progress made. Closing the feedback loop in this way is part of the coaching/ training of HCPs (see below).

- **Recruitment of a community-based exercise and physical activity therapist:** A community-based exercise and physical activity therapist was employed by Sheffield Children's in June 2021. This post is not funded by the Active Hospitals programme (but rather through a fundraising initiative), however there are clear parallels in the work of the two therapists and the impact of the Active Hospitals activity cannot be assessed in isolation from activities happening in the community. The two therapists speak on a regular informal basis to share ideas and materials. Referrals to the community-based therapist come from the Child Development and Neurodisability Service based at the Ryegate Children's Centre (and not from the pathways participating in the Active Hospitals programme, nor the exercise and physical activity therapist).

- **Recruitment of an exercise assistant:** Funding was secured through the regional Cancer Alliance for a Band 3 part-time professional to provide support to the exercise and physical activity therapist. The role involves conducting home visits and school visits for oncology patients – either patients that have a tailored exercise conditioning programme following eight sessions of exercise therapy, or those with less specialised physical activity needs. The community-based nature of this role means patients do not have to travel long distances given the large geographical remit of the hospital. This post is funded for a year from August 2022.

- **Coaching/ training of HCPs:** Both formal (such as PACC training and training sessions delivered between colleagues) and informal training of HCPs working in the participating pathways is ongoing to raise awareness of the Active Hospitals programme and the importance of discussing physical activity with patients. Where appropriate, these HCPs are being encouraged to discuss physical activity with patients and their families, signpost to relevant resources and support services, and refer on to the exercise and physical activity therapist if patients meet the referral thresholds. Some of the training is classed as 'informal' as it involves conversations between staff members prompting them to consider the aims of the Active Hospitals programme, such as reminding staff of the pilot at team meetings.

- **Sharing learning and training nationally:** Both the exercise and physical activity therapist and the exercise assistant have been developing closer ties with leaders in paediatric medicine from other trusts including Great Ormond Street Hospital, Alder Hey, and Manchester Children's services to increase learning and share good practice. Various staff members have presented or conducted training external to the trust which has covered the promotion of physical activity and Active Hospitals. This has included a presentation on pre-operative optimisation with paediatric

anaesthetists in Yorkshire and Humber, training on physical activity promotion to physiotherapists working in paediatric oncology nationally, and training to oncology grid trainees nationally.

Infrastructure

- **Referral and assessment forms added to Electronic Document Management System (EDMS):** To facilitate the new referral pathway introduced as part of the Active Hospitals programme, new forms were added to Sheffield Children's EDMS. One is the referral form which requires clinicians to complete qualitative information about patients' current physical activity and provides space to document advice given and whether this is verbal, leaflet or specific signposting. All clinicians in the trust can complete this form. However, only clinicians in the participating pathways are given the option of generating a referral to the exercise and physical activity therapist. Some referrals to the exercise and physical activity therapist are still made on paper through force of habit, though predominantly they are now made electronically. The other form is an assessment form, completed by the exercise and physical activity therapist, which includes the Youth Activity Profile[4] and provides space to document findings and a management plan. This was made live on the EDMS in February 2022.

- **Adaptation of Moving Medicine and PACC resources:** A number of resources are being used by clinicians to support conversation about physical activity with patients. These include both Moving Medicine and the PACC resources which were tailored to better suit the paediatric setting and reflect local resources available to support physical activity.

- **Links to social prescribing and networks established:** A key role of the exercise and physical activity therapist has been to establish links into the community for resources and support services which can assist patients and their families. For example, the therapist has built links with Sheffield Futures – a charity supporting young people that sends representatives to accompany children to local sporting activities, building their confidence to do so independently. Likewise, the therapist has built networks with various Move More Sheffield groups.

- **Physical activity promoted through My Planned Care:** Sheffield Children's is one of 12 pilot sites for the Government's Waiting Well initiative. It has therefore promoted physical activity as part of its written advice to families who are waiting for treatment or surgery. This can be found on the NHS My Planned Care portal[5]. Through the National Children's Hospital Alliance, Sheffield Children's may be able to share some of this physical activity promotional content for adoption by other trusts.

Promotional

- **Raising awareness of, and engagement with, Active Hospitals:** A lot of promotional work is ongoing throughout the hospital to raise awareness of the Active Hospitals initiative. For example, presenting the initiative at the Grand Round (a weekly, all-departmental educational session), sharing a summary infographic of activities with colleagues, presenting at the trust Management Board, and providing information at the annual staff conference (Caring Together). Though the primary focus on the Active Hospitals work is on the three participating pathways, Sheffield

[4] http://www.physicalactivitylab.org/youth-activity-profile.html

[5] https://www.myplannedcare.nhs.uk/wp-content/uploads/2022/01/Generic-Health-Advice-1.pdf

Children's has the ambition of all hospital staff being more attuned to the need to discuss and encourage physical activity with patients and their families.

- **Linking Active Hospitals activities to wider initiatives:** Given the focus on physical activity for Sheffield as a city, Sheffield Children's has capitalised on opportunities to link the Active Hospitals work with wider initiatives, such as Beat the Street[6], encouraging children and their families as well as staff to join in these city-wide events designed to promote physical activity.

- **Promotion through sport-related patrons:** In time, it is hoped that some of Sheffield Children's sport-related patrons (such as Jessica Ennis-Hill) could help endorse the importance of getting children moving.

Culture (including environment)

- **Environmental adaptations to encourage physical activity in the hospital:** A number of adaptations to the hospital environment have been discussed which would promote physical activity in a playful way (such as projections of paper aeroplanes to chase in waiting rooms, or piano keys on stairs to encourage their use instead of the lift). No further progress beyond early conversations and site visits has been made as of yet – mainly as a result of other initiatives (particularly in the context of Covid-19) needing to be prioritised. However, the refurbishment of one of the oncology wards happened at a time which allowed for the incorporation of means to encourage greater physical activity among patients. For example, an interactive space on the ward where animated animals move along the wall for children to follow.

- **Physical activity promotion in patient waiting rooms:** Efforts are underway to have physical activity promotional videos displayed in relevant patient waiting rooms.

- **Activities for staff to be more active:** Sheffield Children's approach to Active Hospitals is to encourage hospital staff to become more physically active alongside patients and their families. A number of initiatives are in place, or planned, to this end, such as keep fit competitions between staff. The South Yorkshire & Bassetlaw ICS have provided access to their health and wellbeing support page for Sheffield Children's staff which includes yoga, Tai Chi, chair workouts, mindfulness and mental health support. The hospital's charity runs an annual Glow Run (5K run) in December each year and there are discussions ongoing at present about hosting a Couch to 5K[7] programme for staff in the months preceding this. Another possibility being discussed is running staff keep fit initiatives on the Kaido Wellbeing platform[8].

3.5 Outputs resulting from Active Hospitals activities

The logic model for Sheffield Children's denotes several measures of output which could provide early indicators of success for the Active Hospitals programme. These output measures are indicated in **bold** and discussed below:

- **The number of patients referred to the exercise and physical activity therapist** to date is 145 (April 2021 to July 2022). Sixty-five (45%) patients were referred from the oncology pathway, 41

[6] https://www.beatthestreet.me/

[7] https://www.nhs.uk/live-well/exercise/running-and-aerobic-exercises/get-running-with-couch-to-5k/

[8] https://kaido.org/challenge

(28%) from the respiratory pathway, and 39 (27%) from the pre-operative pathway. Those interviewed suggested that a higher proportion of referrals have come from the oncology pathway, not because these patients are better suited for referral, but as a result of closer connections with the exercise and physical activity therapist meaning the referral option is more 'top of mind' for staff working in this pathway.

The number of patients referred has remained relatively steady since the beginning, with an average of nine patients referred each month, though referral numbers fell around Christmas and when the exercise and physical activity therapist contracted Covid-19.

No target number of referred patients was set, though the exercise and physical activity therapist has now reached capacity, meaning referrals are exceeding the volume of patients discharged and thus there is a waiting list for the service at present.

The referral threshold for patients from the three pathways was set at a level to ensure the volume of referrals to the exercise and physical activity therapist was manageable. At any one time, the therapist can have 50-60 patients on their caseload (providing these patients with face-to-face/ virtual exercise therapy sessions or other signposting support). The limiting factor in the number of patients referred for support has been the limited capacity of a single exercise and physical activity therapist, rather than there not being enough demand for the service. Indeed, representatives from each of the three participating pathways felt there were significant numbers of patients who would benefit from the service but whom they could not refer due to the referral parameters.

"In the oncology pathway we have no problem identifying patients who would benefit from [the therapist's] input. We could flood them with patients but we're having to be a little bit choosy and picky to send the ones who really need it."
Oncology pathway representative

"I have loads of patients that are not technically diagnosed as asthma who would really benefit from what we're doing as part of the Active Hospitals project, which is frustrating in some respects, because I see a patient and I just think, you would be so suited, and I can't magic you a diagnosis of asthma to get you over the line into the pathways that we're currently piloting."
Respiratory pathway representative

"I think we're slightly conscious that we don't want to swamp [the therapist] and so we refer the ones who are going to benefit most but we do need to see how they're doing capacity wise, because if there is scope to refer more on, then there are certainly ones that we could."
Pre-operative pathway representative

- **The number of appointments with the exercise and physical activity therapist attended** to date is 679 (April 2021 to July 2022). This has steadily climbed each month since the referral pathway was put in place, with 10 sessions completed in the first month (April 2021) compared to 65 sessions in July 2022, and a maximum of 72 sessions in January 2022.

Over the same time period, attendance of appointments has been 83%. This compares favourably to 77% of all outpatient appointments in 2020-21 as reported by NHS Digital[9]. A significant number of cancellations were related to Covid-19 (symptoms or patient self-isolation) and an increase in Was Not Brought (WNB) absences was seen when schools returned to full-time in person attendance.

The pre-operative pathway had the highest proportion of WNB (34%) followed by respiratory (21%) and 15% oncology (based on April 2021 to March 2022 data). Those interviewed suggested the pre-operative group of patients were more likely to be sedentary and less willing to engage on the topic of physical activity. The messaging to patients on the pre-operative pathways is shifting so that attendance at the exercise therapy sessions is an expectation prior to surgery which seems to be encouraging higher levels of attendance.

- **The proportion of patients referred to the exercise and physical activity therapist who require ongoing 1:1 support** is 47% to date. These are patients who have seen the therapist on more than one occasion. In total, 47 patients have completed the full series of eight 1:1 sessions with the therapist (April 2021 to July 2022). Patients may not complete the full series of eight sessions for a number of reasons including: a change in oncology treatment resulting in less physical capability for exercise, and the assumption of some patients on the pre-operative pathway that they only need to attend sessions prior to surgery.

- **The number of patients spoken to about physical activity** in the three pilot pathways was listed as an intended output in Sheffield Children's logic model but proved too challenging for the trust to capture due to a lack of processes in place for such data capture and a hesitancy to increase perceived staff burden. The interviews suggest that a far greater number of patients than 145 were spoken to about physical activity over the duration of the Active Hospitals programme when considering conversations on wards and in consultations in addition to formal referrals. The full scale of the impact of the Active Hospitals initiative at Sheffield Children's therefore exceeds what is reflected in the evaluation data captured.

- **The number of HCPs trained** in the promotion of physical activity has been 67 through the PACC programme, against a target of 100, and many more through less formal channels of training (such as team briefings). The proportion of staff saying they have not undertaken any training with respect to encouraging physical activity declined from 61% in the 'pre' staff survey, to 40% at the 'post' staff survey.

  As of August 2022, the exercise and physical activity therapist also trained to become a PACC themselves so they can deliver the PACC training in due course.

3.6 Outcomes and impact resulting from Active Hospitals activities

Stage 1 of the evaluation captured expected outcomes and impact of Sheffield Children's Active Hospitals programme. The data gathered during Stage 2 aimed to explore the extent to which these expected outcomes and impact (shown below in **bold**) were achieved. This is discussed below.

[9] https://digital.nhs.uk/data-and-information/publications/statistical/hospital-outpatient-activity/2020-21/summary-report---attendances

Impact on HCPs' capability, opportunity and motivation to promote physical activity

A number of short-term outcomes were anticipated for HCPs involved in delivering the Active Hospitals activities. Primarily it was hoped that the HCPs involved would **better understand the benefits of physical activity**, have **increased confidence to discuss physical activity**, and would therefore **routinely discuss it with patients**.

Findings from the interviews suggest that the Active Hospitals programme has certainly elevated awareness around the need to discuss physical activity with patients, and increased staff's confidence to do so. The training (particularly the PACC training) and presence of a new referral pathway has been instrumental in this.

"Yeah, so I think mindset has changed. I think staff are more confident in talking about physical activity. I think staff are much more engaged in it… Children are up and about more, they're being encouraged to get out to the park, I think that has definitely changed. We've educated a lot of staff, there's a lot of people that have been on those courses that will feel more confident."
Oncology pathway representative

"I think that awareness level is much higher. So [talking about physical activity] would probably cross my brain earlier and, even if we weren't talking about exercise right at the start, it would be there in my plan, going this is what we need to do. Definitely I think it's increased my confidence to really go out there with those conversations. I accessed the [PACC] training, which was helpful. I don't think I learned anything that I really didn't know but it definitely shored up my sense of, 'yes, this is right and this is what is what I should be saying' so I probably push it harder and with more conviction."
Respiratory pathway representative

Results from the staff survey also suggest an increase in HCPs' confidence to discuss physical activity, with 24% giving themselves the highest confidence score of 7 at the 'pre' survey (on a scale of 1-7 with 1 representing 'unconfident' and 7 representing 'confident'), increasing to 30% at the 'post' survey. This data should be interpreted with caution however, as it cannot be considered statistically significant due to the low sample sizes (125 at the 'pre' and 81 at the 'post'), and there being few individuals (30) who completed both surveys.

Having a therapist to refer patients onto has helped staff working in the pilot pathways broach the topic of physical activity with their patients. This has allowed them to be more purposeful in their discussions.

"So I think there's no doubt that clinician behaviour has changed because there's an opportunity [to refer on]."
Active Hospitals lead

Representatives from the oncology and pre-operative pathway felt the Active Hospitals programme had led to more conversations happening with patients about physical activity (including with patients who were not ultimately referred on to the exercise and physical activity therapist).

"We set up a lot of training opportunities for staff, which has been great. So physical activity has definitely been talked about more."
Oncology pathway representative

"Yeah, I think the Active Hospitals project has just raised awareness of this is just something that we should all be talking about."
Pre-operative pathway representative

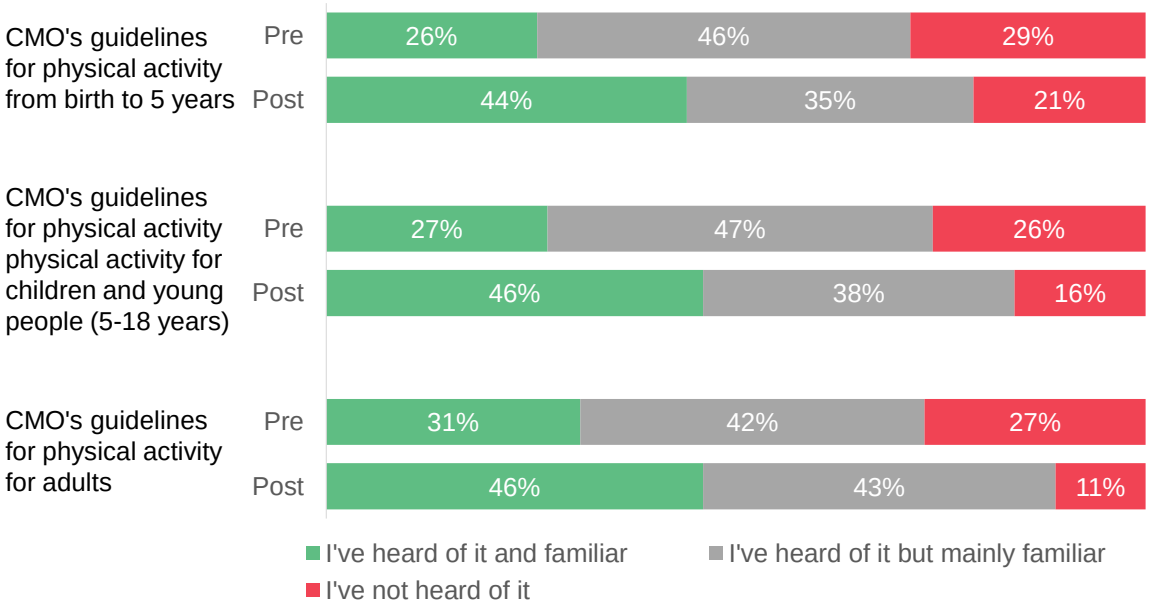
This was less so in the respiratory pathway where all patients should have been asked about their physical activity levels as part of their asthma management prior to the Active Hospitals programme. However, it was suggested that the conversations had with asthma patients may have become more productive since the introduction of the Active Hospitals programme, with the provision of better information about physical activity and improved signposting to relevant services.

"Prior to this project we didn't have a lot of knowledge about what we could signpost to. I would find myself contacting [therapist] and saying, 'I've got a patient in this area, who just needs something for me to plug them into locally, what do you know?' And he would then come back to me and say, 'well, there's this, this and this'. So even for the patients that we're not actually referring for direct intervention, that resource then becomes available."
Respiratory pathway representative

The staff survey results show some movements with respect to conversations about physical activity becoming more routine with patients, however the caveats aforementioned remain and thus these results should be interpreted with caution. Staff saying they are 'likely' to promote/ engage in conversations about physical activity in routine practice has increased from 26% in the 'pre' survey to 39% in the 'post' survey (those rating themselves as 7 on a scale of 1-7 with 1 representing 'unlikely' and 7 representing 'likely'). And a greater proportion of staff now say that promoting physical activity in a conversation in routine practice would be 'easy' (20% rating 1 on a scale of 1-7 with 1 representing 'easy' and 7 representing 'challenging' in the 'pre' survey, compared to 29% in 'post' survey).

Whilst not explicitly named as an intended outcome of the Active Hospitals programme, the staff survey results do show a statistically significant increase in awareness of the UK CMO's physical activity guidelines, as shown in Figure 3.1. For example, those saying they are aware of, and familiar with, the UK CMO's guidelines for physical activity from birth to 5 years has increased from 26% to 44% following the Active Hospitals programme. It is not possible to conclude that these increases in awareness are a result of the Active Hospitals programme, as the sample of staff who completed the 'post' survey may have had greater awareness of the UK CMO guidelines at the 'pre' stage if they had been surveyed then.

Figure 3.1: Proportions of staff aware of UK CMO guidelines



Base: Pre: 125 staff, Post: 81 staff

It was hoped that the Active Hospital initiative would lead to **increased physical activity levels among staff**. There is no evaluation evidence available in support of this desired outcome. The staff survey data showed no observable shift in the physical activity levels of staff: in the pre survey, 54% engaged in moderate intensity exercise at least five days a week with two percent not engaging in moderate intensity exercise on any days in the week, compared to 56% and zero respectively in the post survey. Though, as caveated previously, few staff members completed both the pre and post surveys thus the data are from two different cohorts. Expecting to see a shift in physical activity at the trust level for staff may have been too ambitious given the scale of the Active Hospitals programme. HCPs who commented on their own physical activity levels as part of the qualitative interviews generally stated that they were physically active before the Active Hospitals initiative and thus there was little improvement to be made. However, another ambition of the Active Hospitals programme was for **staff to participate in physical activity promotional activities**. The best example of this is the 730 trust staff who took part in the Beat the Street initiative, representing a sizeable proportion of the 3,000 plus staff working in the trust.

Impact on patients' attitudes and behaviour

As outlined in the logic model for Sheffield Children's, the intended outcomes and impacts for patients as a result of the Active Hospitals programme were that **patients and families understand the benefits of physical activity**, **physical activity is considered more acceptable** by them, they have **more confidence to be physically active**, and ultimately this leads to **increased levels of physical activity among patients**.

Staff members interviewed were able to provide many anecdotal examples of how patients had benefitted from their referral to the exercise and physical activity therapist. They have had patients reporting better aerobic fitness, improved mental health/ mood, better management of fatigue, and greater enjoyment of physical activity.

"Having an exercise and physical therapy person has actually made a really significant difference to our patients. So, certainly my patients that I've referred, it's had a really positive impact. They've really enjoyed the sessions. I know we've had reports of mental health is better, mood is better because of it and stamina and ability to do what they want to do is better."
Oncology pathway representative

"From an anecdotal point of view, there have been several patients who have really benefited from seeing [the therapist] and it's made a massive difference to some of those individuals. One of the difficult asthma patients, one of my colleagues came to me and said, 'I referred a patient to [therapist], and they're just doing amazingly'."
Respiratory pathway representative

"For example, we had a young man who had had lots of treatment, was really significantly unwell, and we'd come to the end of our therapy input with him. We were referring him out to community teams, and we were like, but the thing that he really wants to do is run around in the playground with his mates, that's what he wants to do. And we made that referral to [the therapist] and 12 weeks later he's running round the playground with his mates. And that wouldn't have happened through therapy. It would have taken a lot longer. Yeah, I think the impact on the families is massive."
Oncology pathway representative

Having an exercise and physical activity therapist to work closely with patients has been key to getting patients moving. Many of those interviewed felt that without the exercise and physical activity therapist's involvement, the impact on patients would have been far less.

"Before we would say, 'you should do this amount of exercise per day, these are the guidelines' etc. So we would probably give the advice but the patients would never get to the point where we've got them to now. Now they get the opportunity to actually go, put it into practice, do the exercise, get confident."
Respiratory pathway representative

Sheffield Children's have written up a number of patient case studies, one of whom is Saskia[10]. Following treatment for a brain tumour in the primary central nervous system, Saskia was in a wheelchair. Following her exercise therapy sessions, Saskia has built up to now taking part in workouts with weights.

"I think it definitely exceeded my expectations, both for myself and for what I thought the programme was going to be. I didn't think I would get to this good a point. I've got so much more independence back now, from being in a wheelchair to now is such a massive difference."
Saskia, 18

The patient and parent interviewed as part of the evaluation both talked positively about the impact of working with the exercise and physical activity therapist. For one patient diagnosed with cancer, working with the therapist saw them progress from being in a wheelchair at the start of their sessions to running on a treadmill for a few minutes at the end of their sessions. They have since gone on to complete a 5k run for charity and attributed their ability and confidence to do this to their work with the therapist. This patient acknowledged that their time with the therapist had improved their physicality but had also built their confidence and ability to exercise independently.

"I definitely would 100% say that I would not be where I am, I would not be getting back to normality, without [the exercise and physical activity therapist]."
Patient

One parent interviewed of a young child being treated for cancer described how the therapist sessions had helped with fatigue resilience. They felt the sessions had built their child's confidence and helped them to feel comfortable with an increased heart- and breathing-rate. As a consequence, their child is more likely to be active and for longer (such as going on their neighbour's trampoline and pushing themselves to keep jumping). The parent valued the therapist sessions for encouraging them to be more ambitious in the physical activity they encourage their child to do. In this regard, the sessions were reassuring that their child should – and could – be more physically active.

"It is a reminder to us to keep him physically active and encourage him to get stronger rather than waiting for treatment to finish and then assume everything is okay… A lot of this is about educating parents as well and encouraging them to be more ambitious – I definitely felt that. 'Let's show her he can do more and here are the ways he can do it'."
Parent of patient

Sheffield Children's shared 15 qualitative feedback forms with the evaluation team. These forms had been completed by patients and families who attended physical activity therapy sessions. The feedback provided on these forms was overwhelming positive, with all 15 patients/ family members recommending the service to others. Patients and their family members reported improved physical fitness (such as better muscle tone and greater stamina) as a result of the physical activity therapy sessions. The feedback was also emphatic about the positive impact the sessions had on patients' mental health –

[10] https://www.sheffieldchildrens.nhs.uk/news/saskias-story-recovering-with-active-hospitals/

helping them to process their diagnosis, re-build confidence to be more physically active and re-claim 'former versions' of themselves from pre-diagnosis. A number of patients/ family members felt the same benefits could not have been achieved without the physical activity therapy sessions and they expressed a deep gratitude for the service.

"When [name] started the sessions, he had only just finished treatment and was lethargic and still dealing mentally with the trauma of diagnosis and treatment. Physical fitness seemed a long way off and was even something he had accepted as being lost perhaps forever due to cancer. This mindset completely changed after the first few sessions. With [the physical activity and exercise therapist]'s encouragement and focus on fitness, [name] grew in enthusiasm and confidence... It has also helped with managing anxiety related to diagnosis. Physically, [name]'s fitness has increased dramatically. He has lost the weight he gained during treatment and is able to take part in sports with his friends, despite still being within 6 months of treatment ending… The program has given [name] the fitness and confidence to take up Karate lessons and join a climbing club… This program has been one of the most important factors in [name] regaining his quality of life after cancer. It has allowed him to see that his body is capable of recovering from treatment and has given him confidence that he can still do and enjoy all the activities he used to. Physically, he is now fit and strong again. Mentally, it has helped him deal with so much of the aftermath of treatment and has given him a positive reason to attend clinic every week. I would absolutely recommend it to all patients."
Parent of patient

"I feel that the psychological impact of going through a leukemia diagnosis and treatment regime can make both the parent and child cautious with pushing physical activity. This program shows both the child and their parent that they can do more, which in turn helps them manage the realities of their condition more effectively."
Parent of patient

"Other than the obvious physical improvements, being stronger, more flexible and with a higher stamina, I think it mended me psychologically as well."
Patient

"The difference from then to now is unbelievable. From seeing [name] in a wheelchair wondering what mobility he might get back, to him now being able to run is amazing. He is very determined and is now able to do walks around the neighbourhood, play football in the garden and be more active at school. His quality of life has improved as he lacked the confidence when he couldn't do things he could do before surgery."
Parent of patient

There is further quantitative evidence to suggest an increased acceptability of physical activity among patients seen by the exercise and physical activity therapist. As of July 2022, 47 patients had completed all eight 1:1 sessions with the therapist and done pre and post testing as part of this. The average PACES (Physical Activity Enjoyment Scale) score pre intervention was 38.1, this decreased to 35.7 in the post test score, showing an improvement in patients' enjoyment, pleasure and satisfaction with exercise and physical activity. Similarly, the relatively high attendance rate of 83% of appointments with the exercise and physical activity therapist (as discussed earlier in this chapter) suggests reasonable engagement from patients on the issue of physical activity.

For the cohort of patients that completed all eight 1:1 sessions with the exercise and physical activity therapist, 32 of 36 (as of March 2022) showed an improvement in at least one of the pre and post physical tests (these being a 2-minute sit to stand, 2-minute standing march, and handgrip dynamometry).

The logic model for Sheffield Children's makes reference to further long-term intended impacts for patients, these being: improvement in clinical/ surgical outcomes, and improvement in quality-of-life outcomes. These intended impacts were considered out of scope for the evaluation given the complexity of data capture and the timelines required for these impacts to be realised.

Wider impacts

At a broader level, Sheffield Children's hope to see a **cultural change across the hospital** regarding physical activity as a result of the Active Hospitals programme. Those who commented on this in the interviews acknowledged that culture change within organisations is slow, though the Active Hospitals programme has given the trust a strong foundation on which to build. For example, the Active Hospitals work is known outside of the three pilot pathways, it has strong support from senior leaders, and there are ongoing discussions about adapting hospital environments so they encourage greater physical activity among patients and staff.

One interviewee gave an anecdote which shows the progression in the thinking regarding physical activity. This individual is involved in creating educational videos for teenagers with asthma as they move from paediatric care into self-management. In creating the materials, they have prioritised the inclusion of advice on physical activity – something which might not have happened in the absence of Active Hospitals.

"I think involvement in the Active Hospital project has made me a little bit more pushy about the material that we were going to make for Moving On Asthma. We've had to prioritise which materials we make first, and when we were making a list of priorities I said, 'no, exercise has got to be in the next chunk of work that we do'. So it sort of helps to boost its importance in that sense."
Respiratory pathway representative

Sheffield Children's are presently drafting a business case to secure alternative funding in support of their Active Hospitals activities – looking to fund at least one exercise and physical activity therapist.

3.7 Acceptability of the Active Hospitals activities

Acceptability of the Active Hospitals activities to HCPs

Overall, the new referral pathway and focus on physical activity promotion has been very well received by staff at Sheffield Children's. Reception was particularly positive among HCPs working in the respiratory pathway, given the known benefits of physical activity for asthma patients, and also in the oncology pathway where staff are mindful of children becoming sedentary following a cancer diagnosis. Some HCPs working outside of the three pilot pathways have shown an interest in the Active Hospitals initiative and are keen to have access to their own exercise and physical activity therapist – a wish expressed by HCPs working in mental health, for example.

"Everybody that we've talked to about it has been keen, I think. We're lucky in oncology that it's quite a tight knit team. I've definitely not had any opposition to it, nobody's said we're not doing this, at all… Within physio and OT, so not just looking at oncology, everybody is very keen to have people like [the therapist] around."
Oncology pathway representative

"We've had a number of people respond to us and say, how can we have, is there a way you can embed this into our pathway?"
Active Hospitals lead

The pre-operative team, whilst themselves were very supportive of the Active Hospitals initiative, needed to undertake more extensive engagement work with surgeon colleagues to relay the relevance of Active Hospitals activities to their roles. The pre-operative obesity pathway was established at the same time as the exercise and physical activity therapist was put in post. Independent of the Active Hospitals initiative, the pre-operative obesity pathway requires surgeons to measure the height and weight of all patients to help identify those that require support to become healthier in advance of surgery. Measuring the height and weight of all patients has now become routine for surgeons following discussions about the role of the pre-operative pathway and the benefits it can have on surgical outcomes. This has facilitated the referral of patients onto the pre-operative obesity pathway, and then onto the exercise and physical activity therapist where relevant.

Not all HCPs in the participating pathways are referring at the same rate. Some (particularly the clinical leads) are more likely to refer patients to the exercise and physical activity therapist than others. Those interviewed concluded this was not as a result of staff being less accepting of the Active Hospitals initiative, but that some members of staff are simply more engaged in the topic of physical activity than others.

"Some people [consultants, physicians and nurses] were more engaged than others, and some people made more referrals than others as well… I don't think there's a particular reason, but I think probably some people are just more enthusiastic about physical activity and are more sold on it being helpful to get physical activity going in children with asthma."
Respiratory pathway representative

"I think some people are more engaged in it than others, but I don't think, I think that would happen anywhere."
Oncology pathway representative

Acceptability of the Active Hospitals activities to patients

Findings from the interviews suggest that patients' response to being referred for exercise therapy sessions varied. Broadly speaking, patients in the respiratory pathway have been the most receptive to the prospect of being referred, with greater hesitancy shown by patients with obesity.

"Yeah, [patients are] completely really keen for it. That might have just been people I've selected, or it might just be the way I've sold it, but they've all been, yeah, no, that really sounds good. There's never been resistance, and patients have come back and have been happy they've gone."
Respiratory pathway representative

"So some [patients] are very receptive to it, very supportive of it. I'm not going to lie, there are some who you mention it to who say, 'absolutely not, I don't want to go'. Those, in my experience, are often patients where there's been a long-term problem with significant obesity or weight and some of them just say, 'oh, I wish you'd just stop talking to me about this'."
Oncology pathway representative

Some hesitancy to be referred to, or to attend, the exercise therapy sessions has been shown by patients that have to travel long distances to reach the hospital, or who are concerned about further disruption to school and work, or for whom there are financial barriers to travel. This reflects the wide geographical area served by Sheffield Children's.

Not all patients complete all eight 1:1 exercise therapy sessions (as discussed earlier in this chapter) but for those that do, the feedback is overwhelmingly positive. Of the 20 feedback cards issued by Sheffield Children's which have been completed, 19 rated the service as 'excellent', and one rated it 'good'.

The patient and parent interviewed as part of the evaluation were very positive about their experience working with the exercise and physical activity therapist. Both were very receptive to the idea of working with the therapist when it was first mentioned to them – one because they wanted greater stability with their walking, and the other because they accept all help offered to their family by the hospital, and were keen for their child to have more positive associations of attending the hospital.

"It has been a really positive experience, [child] is always happy to go… it helps you feel as a parent that you are doing something positive, that you have a little bit of control over things."
Parent of patient

4 Northumbria Healthcare Trust

This chapter examines the work of Northumbria Healthcare Trust.

4.1 Summary of approach

Embedding a strategy for population health across all aspects of work is a key priority for Northumbria. As such, the approach to Active Hospitals builds upon extensive pre-existing work across the trust, underpinned by principles of Making Every Contact Count (MECC). Its model incorporates existing activities within the trust, the recommendations set out within the Active Hospitals Toolkit as well as the existing MHPP resources (including PACC, and elearning) where appropriate.

Northumbria took a two-staged approach to the pilot. Of the five pathways participating in the Active Hospitals programme, two (pre-operative assessment and maternity) commenced in year one of the pilot, and three (diabetes, cancer personalised care and Parkinson's) were onboarded in year two. In addition, Ward 24, an elderly care ward, has been made an 'Active Ward' within which different forms of physical activity are promoted throughout the day. In this way, the Active Ward aims to capitalise on the opportunity of hospital admission to influence physical activity levels. Furthermore, staff wellbeing has formed a key thread in the pilot, with a range of initiatives undertaken across the trust.

Northumbria's model utilises nudge theory by developing a hospital environment to prompt and enable physical activity. As such, developing and upscaling opportunities to increase physical activity is being included within Northumbria's refreshed estates strategy, for example by the construction of bike storage facilities. Northumbria has also used communications and campaigns throughout the trust estate to encourage increased physical activity among staff and patients. Finally, Northumbria offers a blended training and development framework that equips a broad range of teams, departments and individuals with the skills, knowledge, and confidence to embed physical activity conversations within their daily practice. A logic model which summarises the Active Hospitals programme at Northumbria can be found in the appendix of this report.

4.2 Underpinning principles

A number of principles underpin the Active Hospitals activities being undertaken at Northumbria. These are:

- **Behaviour change:** Reflecting the COM-B approach to behaviour change, Northumbria's Active Hospital model ensures that staff within the pilot pathways have the capability, opportunity, and motivation, to have conversations about physical activity with patients and engage in physical activity themselves.

- **Engagement and co-design:** Northumbria's approach aims to be based in evidence of, not only what works, but also what matters to its patients and staff. Their approach incorporates a range of methods to understand patient and staff enablers and barriers in relation to physical activity. Northumbria have then designed interventions based on this insight.

4.3 Evaluation activities

Stage 1 of the evaluation involved: interviews with four members of staff involved in implementing the Active Hospitals activities (July - August 2021); a review of programme documentation and data collected; regular attendance at the monthly steering group meetings with the NHS TU; and a review of the draft logic model and evaluation data collection activities specific to Northumbria.

The following evaluation activities have been completed with Northumbria as part of Stage 2:

- Interviews with six members of staff including the Active Hospitals Delivery Lead, the Consultant in Public Health overseeing the pilot, the clinical leads for each of the two participating pathways, and a further clinical patient-facing representative from each of the two participating pathways. These took place in June – August 2022.
- Review of data on Active Hospitals-related training attendance across the trust.
- Review of the monitoring and evaluation data collected in relation to the Active Ward or Maternity pathways. This data captured intended outputs from the Active Hospitals activities such as the number of appointments with health coaches.
- Approximately three patients from the Active Ward were invited to participate in an evaluation interview. One contacted Ipsos directly to express an interest though subsequently were unresponsive to contact and no interviews were successfully completed.
- Regular attendance at monthly steering group meetings with the NHS TU.

4.4 Active Hospitals activities

Outlined below are the main activities being undertaken by Northumbria as part of the Active Hospitals programme. This list has been updated since it was first presented in the Stage 1 evaluation report.

Table 4.1: Summary of Active Hospitals activities at Northumbria

Activity type	Pathway	Intervention
Workforce	All	Secondment of Active Hospitals Delivery Manager to manage the day-to-day delivery of the Active Hospitals programme
	All	Identification of clinical leads and physical activity champions in each pilot pathway
	All	Training of HCPs on promotion of physical activity has been formally incorporated into the trust's Public Health Learning and Development Plan
	Active Ward	Secondment of an Active Ward Champion, with supervision from the Care of the Elderly physiotherapy team, to support the establishment of an Active Ward, and to work with patients and engage staff in supporting patients to be more physically active during their inpatient stay
Infrastructure	All	A physical activity training database has been developed to record and monitor which staff access physical activity training, and the level of this training
	All	A physical activity calculator – a modified version of the Exercise Vital Sign – has been embedded within the electronic record at key points along each pathway
	All	Community support services in the local area have been mapped and are detailed on the MECC Gateway Website, which is used by both HCPs and patients
Promotional	All	An Active Hospitals branding concept has been developed and applied to a range of targeted promotion materials. In due course, this branding will be rolled out across the entire Active Hospitals programme
	Maternity	Dissemination of films to promote walking during and after pregnancy produced for Active Partnership and ICS Maternity Pathway Healthier Weight policy.
Community outreach	Maternity	A health coach pathway has been implemented within the maternity pathway in which all mothers with a BMI over 35 are allocated a health coach with whom they will have three online appointments
	Maternity	Weekly Bump and Buggy Walks are led by midwives, with support from community health trainers, for new and expectant parents
	Maternity	Bi-weekly Aquanatal exercise sessions are led with midwives for expectant mothers
Culture (including environment)	All	A number of initiatives have been implemented to encourage staff to be physically active, such as a 'Step into Spring/Summer' staff step challenge, Couch to 5k, live exercise classes and resources to support cycling

	Active Ward	An Active Ward initiative on an elderly care ward (Ward 24) commenced in March 2021, led by the Active Ward Champion. A programme of activities, supported by staff, has been delivered to encourage physical activity among patients

The activities being undertaken by Northumbria are expanded upon below.

Workforce

- **Secondment of Active Hospitals Delivery Manager:** A manager has been appointed via internal secondment to manage the day-to-day delivery of the Active Hospitals programme across Northumbria. The role is for three days per week, for the duration of the 2-year pilot. This appointment was funded by the Active Hospitals programme funding.

- **Identification of clinical leads and physical activity champions:** A clinical lead, in either a managerial or patient facing role, has been identified within each pilot pathway. These clinical leads have in turn identified a physical activity champion per pathway. These champions are mainly in patient facing roles and have regular "active conversations" with patients. Both leads and champions act as the main point of contact for the Active Hospitals Delivery Manager, attend the trust's Active Hospitals steering group, Active Hospital masterclasses, and Community of Practice collaboration forums.

- **Training of HCPs:** Training on promotion of physical activity, including the PACC training, elearning (including the MHPP HEE elearning modules), and Active Conversations online training, has been formally incorporated into the trust's Public Health Learning and Development Plan. In addition, the physical activity content within the existing MECC training has been reviewed and updated.

  This training is not mandated, as the trust is keen that staff that complete the training are fully engaged with it. However, the available training is actively promoted to relevant staff across the pilot pathways. In addition, certain forms of training are now formally incorporated within both specific pilot pathways and more widely. These include:

  - All pilot pathways offer the Making Every Contact Count training and PACC training to all staff who will be involved in the Active Hospitals programme. In addition, this training is offered to all new starters and as part of whole team training.
  - Health Education England North East CPD annual funding has provided 86 places on the full Active Conversations training course; 66 places in the 2021/2022 financial year and a further 20 places in the 2022/2023 financial year.
  - Within the maternity pathway, a "Train the Trainer" cascade model is used. The Public Health Midwife has been trained to deliver the This Mum Moves ambassador training and the Physical Activity Clinical Champion training. Each year, this training is delivered to all maternity staff as part of their non-mandatory training. Further, the elearning module 'Pregnancy and Postnatal Period: Being Active', which is funded by OHID and hosted by Health Education England, has been rolled out for all staff.
  - Within the maternity pathway, members of staff have been trained to deliver Aquanatal exercise sessions, or to lead walks, and are now delivering these interventions in the community.
  - More widely, PACC training is embedded in the annual medical education for undergraduate doctors, F1 and F2 student doctors and GP specialty trainees. It has also been added to the

trust nurses and allied health professionals preceptorship monthly training, for newly qualified staff.

- **Secondment of band 4 Active Ward Champion:** As part of the Active Hospitals programme, in March 2021, an Active Ward Champion was seconded to a six-month post to support the establishment of an Active Ward, and to work with patients and engage staff in supporting patients to be more physically active during their inpatient stay. This secondment was extended a number of times before coming to an end in June 2022. The initial six-month posting was funded by the trust, with extensions enabled by Health Education England funding. The trust are currently developing a business case for further funding from the trust for the Active Ward Champion role as part of the Trust Falls Policy which will encompass Active Ward principles.

- **Appointment of a clinical educator:** to support the delivery of training on physical activity across the trust. This appointment is funded by HEE CPD monies.

  More informally, there are plans to develop a support network to share learning and resources about physical activity conversations across the trust. This is be supported by an internal webpage containing resources, feedback, and experiences from staff.

Infrastructure

- **Physical activity training database:** A training database has been developed, as part of the existing Learning and Development database, to record staff accessing physical activity training. The database is regularly reviewed by the Learning and Development Coordinator to match the type/level of training provided with the needs of different groups of staff. The database forms part of the trust public health dashboard, which is used by the public health team.

- **Physical activity calculator:** Northumbria is using a modified version of the Exercise Vital Sign as its physical activity calculator – as suggested on the Moving Medicine website. The physical activity calculator is embedded within the SystmOne electronic record at key points along the Parkinson's and Diabetes pathways. Where possible, this is asked twice: once at the initial active conversation, and at any follow up appointment. Having the calculator embedded within the electronic clinical record helps facilitate completion and provides data for analysis to help evaluate impact and uptake.

- **Physical activity signposting:** As part of the Making Every Contact Count (MECC) programme across the Trust, Northumbria has mapped community support services in the local area, including physical activity options. These services are detailed on the MECC Gateway Website[11], which patients are referred to in the pre-assessment unit appointment letters and by health coaches.

Promotional

- **Physical activity messaging:** An Active Hospitals branding concept has been developed and refined based on an evidence review and testing with the public, staff, patients, and carers. This branding concept has been applied to a range of targeted promotion materials – including signs and patient information leaflets – that are displayed around the trust estate and clinical areas to

[11] https://www.meccgateway.co.uk/nenc

encourage conversations about physical activity and increased physical activity. In due course, this branding will be rolled out across the entire Active Hospitals programme.

Community outreach

- **Implementation of maternity health coach pathway:** Existing health coach posts were aligned to the maternity pilot pathways from September 2021. Mothers with a BMI over 35 are allocated a health coach with whom they will have three online appointments, with the first taking place at 14-16 weeks into their pregnancy. The health coaches provide patients with in-depth advice and support, and facilitate access to community services based on individual need and preference. The focus of the health coach conversation is non-medical and covers the wider determinants of health, which may include physical activity.

  Currently, it has not been possible for health coaches to work with patients on the Active Ward due to Covid-19 related restrictions to ward access. Further, although there remains an ambition for health coaches to support the diabetes and Parkinson's pathways in the future, this has not been feasible to date due to vacancies and staffing changes in the health coach team.

- **Bump and buggy walks:** In the Maternity pathway, eight public health midwives have been trained to lead bump and buggy walks with expectant and new parents. The walks are supported by Northumberland County Council Health Trainer service and the Newcastle Eagles Basketball Foundation, with funding from Trust Bright Charity. The walks currently take place weekly in Berwick, which is – particularly during the pandemic – an isolated rural community. There are ambitions to extend buggy walks to other areas, including those with higher levels of deprivation. Buggy walks are promoted during clinic appointments, using flyers, and through the dedicated trust Maternity Facebook page, as well as via the health coaches.

- **Promotional films:** In the maternity pathway, promotional films have been produced with the Active Partnership RISE and shared with the ICS Maternity Network.

- **Aquanatal exercise sessions:** As mentioned in the training section above, in the Maternity pathway, 12 midwives have been trained to deliver weekly Aquanatal exercise sessions in local swimming pools using Active Hospitals funding. Again, the classes are promoted during clinic appointments, using flyers, and through the dedicated trust Maternity Facebook page, as well as via the health coaches.

Culture (including environment)

- **Staff physical activity programme:** Physical activity has been identified as a priority by the trust's Staff Wellbeing programme. As such, Northumbria's approach to Active Hospitals is to encourage hospital staff to become more physically active alongside patients. A number of initiatives have taken place to this end, such as a 'Step into Spring/Summer' staff step challenge, Couch to 5k, live exercise classes and resources to support cycling (including a cycle to work scheme and bike maintenance sessions). Case studies of success stories are shared among staff via email and the

trust's intranet, and have been showcased in the Richmond Group physical activity resource packs[12].

- **Establishment of an Active Ward:** An Active Ward initiative on an elderly care ward (Ward 24) commenced in April 2021. The Active Ward launched simultaneously with the Active Hospital pilot, so the two were brought together and successfully registered as a quality improvement project within the trust. This in turn secured the involvement of members of the multi-disciplinary team to support its development.

  Throughout March 2021, a mapping exercise was conducted to explore the ward's physical and social environment. This included the collection of baseline audit data to record whether, by 11am each morning, each patient was wearing the correct footwear, sitting in the correct height chair, and had access to any mobility aids they require. A baseline survey of staff and patients was also conducted.

  Based on learning from the mapping exercise, from April 2021 onwards, the Active Ward Champion has developed and delivered a programme of activities, supported by staff, to encourage physical activity among patients. Ideas for these activities were sourced from patients and staff through regular engagement. To monitor progress, audit data continued to be collected at 11am each morning, and a follow-up survey of staff and patients was conducted in June – July 2022.

4.5 Outputs resulting from Active Hospitals activities

The logic model for Northumbria denotes several measures of output which could provide early indicators of success for the Active Hospitals programme. These output measures are indicated in **bold** and discussed below:

Outputs for HCPs

- **The number of staff trained** to promote physical activity across the trust exceeds 300, and comprises the following:
  - 305 staff have attended PACC training. The staff trained include doctors, nurses, midwives, physiotherapists, dietitians, health care assistants, health coaches and social prescribers. The majority (255) of these staff were trained during 2021, which reflects Northumbria's success in training staff across both Year One and Year Two pilot pathways within Year One of the pilot.
  - Across two cohorts, funded by Health Education England, 61 staff have completed the Active Conversations training. There are a further 25 funded places, which will be used by a third cohort of staff in September 2022. While the staff trained are primarily involved in the pilot pathways, they also include staff from other services.
  - The maternity team have successfully negotiated the inclusion of one hour of training on physical activity within the 7.5 hours of non-mandatory training completed by each midwife and

[12] Resource pack for health and care sector – Northumbria case study: https://richmondgroupofcharities.org.uk/physical-activity-long-term-health-conditions-resource-packs

nursing assistant per year. This means that all maternity pathway staff receive the PACC training each year. In addition, seven staff within the maternity pathway – comprising the public health midwife, two health coaches, a physio and three Best Start in Life Advisors - have been trained as This Mum Moves Ambassadors.

- 12 midwives within the maternity pathway have been trained to deliver Aquanatal exercise sessions, and eight midwives have been trained as walk leaders, and now deliver classes and buggy walks within the community.

- On the Active Ward, **exercise programmes were made available** to 75% of patients on average each day. Furthermore, there were 5,716 **physical activity related contacts** between staff and patients as part of the pilot (2,646 initiated by the Physical Activity Champion and 3,070 by other staff). Based on Northumbria's records, it is not possible to identify the number of patients that this involved, as many patients will have been engaged in physical activity on multiple days.

- **The number of patients spoken to** about physical activity on the Maternity pathway is 65. These patients include 60 who had their **physical activity levels assessed and recorded.**

- The qualitative interviews conducted as part of the evaluation suggest that a far greater number of patients than this were spoken to about physical activity over the duration of the Active Hospitals programme. The full impact of the Active Hospitals initiative at Northumbria therefore exceeds what is reflected in the evaluation data captured.

Outputs for patients

- **The number of appointments with health coaches** was captured in the maternity pathway. To date, (September 2021 to July 2022) 98 service users were referred to the health coach from the maternity pathway and 67 appointments were attended. These figures indicate that just over two in three (68%) referrals result in an appointment with the health coach. Staff described how, although service users expressed interest in seeing a health coach, there can be challenges in converting this interest into actual appointments. Interviewees felt that this was partly due to the health coach appointments being online; which was felt to be sub-optimal when discussing what is potentially such a sensitive topic.

> **"We knew this to be a difficult group to engage with because the health coaches aren't present in the clinic. The health coach appointment is online, which I think immediately brings up a barrier for this emotional, sensitive subject, when you're discussing it with somebody you've never met and it's online."**
> Maternity pathway representative

The trust had also acted on feedback from mothers about the content and tone of the invitation letters. The trust worked with a voluntary organisation to update the invitation letters in collaboration with mothers and has since seen a significant improvement in uptake. Indeed, the number of health coach appointments attended per month has risen steadily since September 2021; since May 2022, an average of 14 service users per month attended appointments, compared with an average of three service users per month prior to this.

"The initial letter that we sent out was quite a basic clinic letter, just to say 'you're in a high risk pathway, you are therefore offered a health coach appointment' and women did not like that. They give us feedback straightaway. So we've tweaked that letter and we've spoken to Maternity Voice Partnership to ask women, what do you want to know about it? So we've changed the letter."
Maternity pathway representative

As a response to the success of the pilot, the maternity team are in the process of recruiting for a maternity-specific health coach position, which will be funded by the trust. This health coach will be based within the clinic itself, which will allow appointments to take place within face-to-face clinics. Interviewees suggested that this would make it easier for health coaches to engage with mothers, thereby further improving referral-appointment conversation rates.

Turning to the Active Ward, in the future there are plans for patients to be referred to health coaches from the ward, with the intention that they will play a key role in signposting patients to support within the community once they have been discharged from hospital. In this way, it is hoped that any improvements in condition that are gained while the patient has been in hospital can be maintained.

"We wanted something that would follow out into the community. Because they're getting all this on the ward, but then they'll go home and do nothing. So we wanted someone to pick them up out in the community. That was the next big thing."
Active Ward representative

- **The number of patients engaging with physical activity initiatives** was captured **across both the maternity pathway and the Active ward.**

In the maternity pathway, staff commented that there has been consistently good engagement with both the weekly bump and buggy walks and weekly Aquanatal exercise sessions since they commenced, even during the winter months.

Since 2021, there have been 56 Bump and Buggy Walks, which 30 women have attended in total; with many of these women attending on a regular basis. In addition, there have been 36 Aquanatal sessions since April 2022, with approximately 6-8 women attending each week. However, monitoring data does not allow insight into the total number of individual mothers who have who have attended since the sessions commenced.

Despite this success, maternity staff felt that, since the pandemic, many people felt apprehensive about attending activities alone. To try to overcome this barrier, staff encourage mothers to attend sessions with partners or friends if this makes them feel more comfortable.

"But one of the barriers as well for the ladies, I think as well is I think Covid has really still, still has an effect and a lot of people and they're still worried about coming. So we've OK'd it for them to bring a friend or to bring a relative. So, especially for the first time that they arrive, they're not coming in and feeling really apprehensive, because it is a big thing these days, isn't it? Walk into a room."
Maternity pathway representative

In the future, there are plans to expand the sessions to cover areas with higher levels of deprivation, and thereby increase the number of mothers reached and the impact of the intervention. Engagement via social media has indicated that there is demand for the session across a range of areas. However, this expansion has been prevented to date due to pressures on staffing across the trust.

> **"The midwifery workforce is struggling at the minute, so we haven't got the midwives to take out of clinical work to take the sessions on, even though we've trained a midwife from every area of the trust footprint. But at the minute we're stuck a little bit just because of staffing."**
> Maternity pathway representative

The qualitative interviews highlighted the centrality of the Active Ward Champion to the success of the Active Ward. In cases where the Champion was away from the ward, the metrics show that fewer patients were ready for physical activity by 11am and fewer engaged with physical activity initiatives. Since the Active Ward Champion post came to an end, in June 2022, the metrics have declined notably. As noted, Northumbria are currently developing a business case to secure trust funding to extend the Active Ward Champion post.

4.6 Outcomes and impact resulting from Active Hospitals activities

Stage 1 of the evaluation captured the expected outcomes and impact of Northumbria's Active Hospitals programme. The data gathered during Stage 2 aimed to explore the extent to which these expected outcomes and impact (shown in bold) were achieved.

Impact on HCPs' capability, opportunity and motivation to promote physical activity

A number of short-term outcomes were anticipated for HCPs involved in the Active Hospitals programme. Primarily, it was hoped that HCPs would have **increased capability, opportunity, and motivation to promote physical activity** to patients. In turn, it was hoped this would lead to **physical activity being more routinely discussed** with patients.

To help assess the impact of the Active Hospital's pilot, Northumbria conducted pre- and post-surveys among staff on the Active Ward. While the sample size for these surveys is very low due to the size of the Ward MDT (38 for the pre-survey and 29 for the post-survey), and the results must therefore be treated with caution, the data are indicative of some positive shifts:

- In the pre-survey, three in four staff (77%) said they would be **willing to be involved in promoting physical activity to patients**. In the post-survey, almost all staff (97%) said they would be willing.
- In the pre-survey, almost one in ten (8%) said they did *far too little* to **actively engage with patients other than in their normal role**. In the post-survey, no staff said this. However, the proportion who said they did this *about the right amount* (50% before and 48% after) did not increase.
- There was no change in the proportion of staff who thought their **normal role was part of the patient rehabilitation process** (82% pre-survey and 83% post-survey).

Staff's increased involvement with the promotion of physical activity has resulted, to some extent, from staff's increased comfort levels with having these conversations. Proactive efforts have been made by the Active Ward Champion to role-model physical activity promotion to staff on the ward. This has, in turn, led to some staff being more comfortable promoting physical activity independently of the Active Ward Champion.

“Some of them didn't feel comfortable doing exercises with patients, so I had to do a little training session with them, just so they knew what they were doing, and then maybe we'd do it together. I think some of them thought, ‘yeah, I feel embarrassed doing that’. But if I was there doing it, then I brought them on as well, and some of them now will do the exercises within the bay area.”
Active Ward pathway, representative

While these findings suggest some positive cultural shift in staff capability and motivation to promote physical activity among patients, qualitative evidence suggests that staff do not routinely do so without facilitation from the Active Wards Champion. For example, at times when the Active Ward Champion is not on the ward, a reduction in activity has been noted.

“I think presence does make a difference. They're doing the little things, but they're not getting the exercises that I would do. There's no bed and chair exercises being given out because, obviously, [the Active Ward Champion] is not there.”
Active Ward pathway representative

Nonetheless, a more subtle cultural shift has taken place on the ward, with staff engaging with patients outside of their main roles on a more regular basis, for example by brushing their teeth or washing their hair. This behaviour change was particularly noted among Healthcare Assistants.

“Obviously, they're not getting the physical and thinking activity side of things, but just little basic things, like wash, like brushing teeth, washing hair. They've continued that. And it's been nice to see that from a different side.”
Active Ward pathway representative

It was noted that this level of engagement – although not directly encouraging physical activity in patients – helped establish trusting relationships between staff and patients which could facilitate opportunities for staff to encourage physical activity.

“Some people don't really do exercise, some people are not interested in doing anything. They might sit down, thinking, oh, I'll read a magazine or do some colouring in or play a game. And sometimes, when you build that relationship up, and, oh, can we fit a little walk in there, or can I walk you to the toilet? And then they'll end up that way. But I think if you've got a good relationship with people, patients, they'll do more with you.”
Active Ward pathway representative

Qualitative feedback from the survey and interviews suggests that staff capacity prevents some staff from having the opportunity to promote physical activity among patients. This was particularly exacerbated during pandemic, at some points during which Ward 24 was allocated for Covid-19 patients.

“Time constraints often limit staff participation in providing meaningful activities often because of the staff number/ patient ratio.”
Active Ward pathway representative (post-survey response)

“I feel staffing pressures is one of the reasons which may limit my input in helping to engage patients, more staff would allow more time to engage patient’s and improve activities.”
Active Ward pathway representative, post-survey response

Turning to the Maternity pathway, interviewees said that they had witnessed a cultural shift as a result of the work done to upskill the staff’s awareness of the benefits of physical activity. Previously, interviewees noted that the maternity staff’s focus had been on healthy eating and healthy weight during pregnancy, with little focus on physical activity.

Although there is currently no empirical evidence of how often staff promote physical activity to patients, in the future, the pilot team plan to analyse the number of referrals that maternity staff make to the health coaches to understand whether this has increased as a result of the introduction of the physical activity training.

Impact on patients' attitudes and behaviour

Northumbria conducted pre- and post-surveys among patients on the Active Ward. As with the staff survey, the sample size for these surveys is very low (24 for the pre-survey and seven for the post-survey), and the results must therefore be treated with caution. The data do, however, suggest positive shifts from the perspective of patients:

- In the pre-survey, just 8% of patients said staff engaged with them *just the right amount* to **carry out activities to improve their wellbeing**. In the post-survey, this had increased to 43%.
- In the pre-survey, 38% said that **staff support them with their exercises and mobility** *just the right amount*. In contrast, 62% said that they get too little support. In the post survey, 86% said that they get the support of staff just the right amount, and just 14% (one patient) said they get too little support.
- In the pre-survey, just 29% of patients said they **practice their exercises throughout the day on their own** *just the right amount*, with 71% saying they *could do more* or do *far too little*. In the post-survey, 86% say that they do it just the right amount and only 14% (one patient) said they did not do enough. This positive shift is particularly notable, as it indicates that patients are feeling motivated to conduct their exercises independently of staff.

Notably, however, the increase in physical activity experienced by patients did not seem to change their attitudes towards physical activity itself. In the post-survey, all patients (7) said that physical activity had a detrimental effect on their health condition. While this may reflect the particular experiences of the small number of patients who completed the post-survey, it does suggest that more could be done to communicate the longer-term benefits of physical activity to patients.

Perhaps reflecting low comprehension of the benefits of physical activity, within the open-ended survey question, patients primarily focused on how much they had enjoyed the variety and interest that the activities provided, rather than focusing specifically on the benefits of being more active.

"The days can be very long when you're in hospital and it can be a very sterile atmosphere, there's only so much reading you can do and I'm hard of hearing so I can't watch the TV."
Active Ward pathway patient (post-survey response)

However, staff reported that the Active Hospitals initiative had made a noticeable impact on patients' conditions. Specifically, the physical activity on the ward was felt, at the very least, to slow the deconditioning of patients while staying on the ward. In some cases it was also felt to lead to an actual improvement in patients' levels of frailty. Some data suggests that the length of stay on Ward 24 has reduced throughout the pilot period. While staff were careful to emphasise that this could not be causally linked to the pilot, they felt that the pilot may have been one of a number of contributing factors.

"It's nice when you see someone who does come in really frail, and they're just doing something every day, so you're building them up. Deconditioning is a big thing. Because you see a lot of numbers about reduced length of stay, and it's played a part in that as well."
Active Ward pathway representative

Turning to the maternity pathway, there have been challenges collecting empirical data on the impact of the pilot on service users' physical activity levels. The physical activity calculator is completed at every health coach contact, so this should provide insight into any changes in mothers' physical activity levels over time. However, the number of mothers attending the second and third appointments with health coaches has been low, meaning that relatively little follow-up data has been collected to date. As the number of mothers attending health coach appointments has increased since May 2022, the pilot team expect to have sufficient data to evaluate the impact of the health coach intervention on mothers' physical activity levels in late 2022.

However, interviewees report that qualitative feedback from mothers who have attended all three health coach appointments has been excellent. Mothers have appreciated the one-on-one time, and the holistic nature of the appointment which enables them to speak about a range of issues. Specifically, mothers have appreciated the focus on physical activity

"It's very holistic and they appreciated that approach of physical activity rather than a lecture about risks when you have a high BMI in pregnancy, which is the historic way that we've dealt with these women."
Maternity pathway representative

The staff delivering the community-based interventions also reported anecdotal evidence of positive impacts on the mothers who had participated in activities. In particular, they had witnessed mothers increase in confidence relating to physical activity, develop support networks which opens possibilities for them to meet to walk/swim independently of the formal trust-run sessions.

"I can actually see a difference from the ladies from when they first attended the sessions. Some of them were just so quiet now and to see the difference in them, their confidence, it's just lovely to see, it really is. And I think friendship groups as well. The ladies decided to make a WhatsApp group so they were exchanging numbers. And hopefully this will then lead onto the buggy walk and other things and at that moment I thought, yes, this is what we're trying to achieve."
Maternity pathway representative

Furthermore, feedback the trust has received from mothers via social media demonstrates the importance mothers place on the sessions being run by midwives or nursing assistants, as it provides mothers with regular opportunities to discuss any questions or concerns. Staff reported that this had a positive impact on mothers' confidence that positively impacted the whole of their maternity journeys, not just as it related to physical activity.

"But even wider than that, women who are confident, empowered in pregnancy will make their own choices and we're very much about decision making and shared decision making and choice in maternity. And I think that's really important that women are confident and they know that they can speak up now they've got support networks."
Maternity pathway representative

4.7 Acceptability of the Active Hospitals activities

Acceptability of the Active Hospitals activities to HCPs

Overall, the additional focus on physical activity in both the Active Ward and the maternity pathway has been well received by HCPs.

Within the maternity pathway, interviewees reported that the shift of focus to physical activity had been welcomed by staff. It was suggested that staff found it more acceptable to patients, and more

constructive to discuss physical activity, than to discuss the sensitive topic of weight which had previously been the focus of conversations.

"They're enjoying it. They're enjoying the training and it's not about asking to do anything really different. It's taking the focus away from talking about weight and talking about food rather than just at every contact, 'have you managed to get out for a walk?', 'how much activity have you done this week?'"
Maternity pathway representative

There has also been a clear appetite from staff to be trained to deliver the community-based interventions: bump and buggy walks and Aquanatal, although the further roll out of these interventions is currently prevented by workforce pressures.

Staffing pressures were also faced in the Active Ward – particularly during the Covid-19 pandemic – although the Active Ward was maintained due to the Active Ward Champion role. This was referenced as one of the main barriers that prevented staff from engaging patients in physical activities on a more regular basis. However, it was clear from both the qualitative interviews and survey responses that – when staff did participate in promoting physical activity to patients - many staff found the additional engagement with patients rewarding.

"The staff feel happier too. We've educated and empowered them to introduce activity as part of patient care and you can see the joy it spreads throughout the ward."
Active Ward pathway representative (post-survey response)

Furthermore, the findings post-staff survey, while indicative only due to small base sizes, shows that almost all staff are willing to be involved in promoting physical activity to patients, suggesting that staff saw the value of the Active Ward activities and understood promoting physical activity to be part of their role.

Acceptability of the Active Hospitals activities to patients

Within the Active Ward, the acceptability among patients appears to have been high. As indicated by the pre-survey with patients, there was a clear demand for additional activities on the ward. The post-survey data suggests that this demand has been partially met by the Active Ward activities, with very few patients saying that there are too many activities on offer. Feedback from patients has been positive, although it is noticeable that they focus primarily on the enjoyment that they receive from the activities rather than the benefits of the physical activities per se. This suggests that the trust is currently striking the right balance for patients; encouraging them to be active by doing activities that they enjoy.

"The activities really brightened my day. They gave me something to look forward to, gave me someone to talk to and made my stay much more enjoyable than previous stays in hospital."
Active Ward patient (post-survey response)

Within the maternity pathway, the majority of mothers who are referred to health coaches are done so based on their BMI. The sensitivity of this topic has made both conversion of referrals to initial appointments, and retention of mothers between appointments challenging. This challenge has been exacerbated by the fact that health coach appointments have been virtual; making it more difficult for health coaches to build rapport with mothers.

The trust has managed this challenge in two key ways. First, following feedback from mothers, it has adapted the health coach invitation letters to improve their content and tone. The trust has collaborated with Maternity Voice Partnership when undertaking this work to ensure that the changes reflect the

needs of mothers. Second, as part of the Active Hospital activities, the trust plans to recruit a dedicated maternity health coach who will be based within this clinic. This will facilitate health coaches to build rapport and trust with mothers, thereby helping them to both secure initial appointments and retain mothers between appointments.

With regards to the community-based activities, there has been clear demand from mothers for the sessions to be run by experienced maternity professionals. Again, the trust has been very responsive to this need, although the pressure on the maternity workforce within the trust means that this has made the expansion of the programme slower than it might otherwise have been. Further, the trust has recognised that mothers may lack the confidence to attend sessions by themselves. Again, the trust has responded to this by encouraging mothers to bring partners or friends to sessions.

5 North Tees and Hartlepool Foundation Trust

This chapter examines the work of North Tees and Hartlepool Foundation Trust.

5.1 Summary of approach

The ambition of North Tees and Hartlepool is to improve physical activity levels in Stockton and Hartlepool, through the development of a scalable and sustainable physical activity programme. Four pathways are participating in the Active Hospitals programme, across two pathway types: integrated musculoskeletal-physio (iMSK) (outpatients) (including orthopaedic, rheumatology and persistent pain pathways), paediatrics (outpatients), acute cardiac unit (ACU) (inpatient), and elderly care (inpatient).

The iMSK pathway launched in March 2021 followed by the paediatrics pathway which launched in June 2022. However, the paediatrics pathway was paused in early 2022 due to staff shortages. Thus the pathway has remained paused for some time. Staffing has since improved and plans are in place to relaunch the pathway. Both the ACU and elderly care pathways were planned to launch in July 2021, however they did not launch until October 2021. The impact of Covid on both wards delayed the delivering of training to and, thus, staff readiness to launch the pathways. A logic model which summarises the Active Hospitals programme at North Tees and Hartlepool can be found in the appendix of this report.

A range of activities are happening within these pathways, with some broader activities across the trust and local authority, in relation to Active Hospitals. This includes the utilisation and delivery of Make Every Contact Count (MECC) training of HCPs working within each pathway.

The trust serves a population with relatively high level of physical inactivity, compounded by high levels of deprivation, contributing to poor health outcomes. The Active Hospitals programme presents an opportunity for action and for the trust to align its focus on health promotion and prevention activities, moving away from a reactive disease management approach.

5.2 Underpinning principles

A number of principles underpin the Active Hospitals activities being undertaken at North tees and Hartlepool. These are:

- **Population health approach:** as mentioned, the trust is working to shift its culture to focus on proactive prevention and health promotion, moving away from a reactive disease management approach. Active Hospitals aligns with the trust's aims and objectives on population health, complementing its approach.

- **Behaviour change:** North Tees and Hartlepool's approach draws on COM-B behaviour change principles to achieve high levels of patient engagement. Fundamental to this are activities aimed at increasing the HCPs knowledge of physical activity and supporting them to develop skills to have conversations about physical activity. HCPs also are also provided with broader behavioural change guidance linked to health coaching (e.g. OHID guidance, such as 'Achieving behaviour change: a guide for local government and partners'). This is underpinned by the trust's focus on making every contact count, within which using contact with patients to encourage physical activity is a key part.

- **Dual focus:** The programme emphasises the importance of physical activity integration within secondary care systems presenting an opportunity to focus on both inpatients and outpatients, albeit with different physical activity goals for respective patient cohorts. Whilst the outpatient element is focused on long-term behaviour change and improving integration between secondary care and the community, the inpatient element is more direct, focusing on reducing the negative effects on patients' physical inactivity during a hospital stay (e.g. hospital acquired deconditioning).

- **Co-production approach:** The project team have co-produced the pathways, working closely with HCPs, patients and colleagues within each pathway to ensure the proposed activities are relevant to the pathway and can reasonably be implemented and delivered. The benefit of this approach is that HCPs working on each of the pathways have a greater sense of ownership of the project.

5.3 Evaluation Activities

Stage 1 of the evaluation involved: interviews with six members of staff involved in implementing the Active Hospitals activities (June/ July 2021); a review of programme documentation and data collected; regular attendance at the monthly steering group meetings with the NHS TU; and a review of the draft logic model and evaluation data collection activities specific to North Tees and Hartlepool.

The following evaluation activities have been completed with North Tees and Hartlepool as part of Stage 2:

- Interviews with nine members of staff including the project lead, two senior physiotherapy clinical leads in managerial roles and three further clinical-facing representatives from across both the participating pathways and two personnel delivering referral services, as well as one interview with a volunteer. These took place between April and August 2022.

- Review of the evaluation and additional data collected by the trust (including their staff survey and ward audit data). This data captured intended outputs from the Active Hospitals activities such as the number of HCPs trained.

- An interview with one patient who had had a conversation about physical activity with a HCP.

- Regular attendance at monthly steering group meetings with the NHS TU.

5.4 Active Hospitals Activities

Outlined below are the main activities being undertaken by North Tees and Hartlepool as part of the Active Hospitals programme. This list has been updated since it was first present in the Stage 1 evaluation report.

Table 5.1: Summary of Active Hospitals activities at North Tees and Hartlepool

Activity type	Pathway	Intervention
Workforce	All	Coaching and training of HCPs to raise awareness of the programme, upskill them to promote physical activity and alert them about the referral pathway to Movement is Medicine sessions
Infrastructure	Outpatients	Physical activity assessment questionnaire integrated into SystmOne/TrakCare for outpatient pathways
	Inpatients	Physical activity logged in nursing documentation – e.g. 'I Can' Boards
	Outpatients	Development of an outputs dashboard to collate and monitor programme activities
	All	Adaptation of Moving Medicine and PACC resources

Other activities	Outpatients	Development of Movement is Medicine sessions to support patients with increasing physical activity
	Outpatients	Rollout of Health Call application to collect data about patient physical activity levels
	Outpatients	HCPs discussing physical activity with patients, making every contact count
	Inpatients	HCPs and volunteers supporting patients to be more physically active on wards
Culture (including environment)	All	The project plan also included activities to implement other environment adaptations wards, however, a decision was made not conduct adaptation activities whilst social distancing rules were still being observed

The activities being undertaken at North Tees and Hartlepool are expanded upon below.

Workforce

- **Coaching/training of HCPs:** the project lead, along with support and input from the trust's MECC lead, PACC trainers and elearning for health online physical activity modules, is training HCPs working in the participating pathways. The training demonstrates the importance of discussing physical activity with patients. For inpatient pathways, the training provides skills to HCPs to increase the physical activity levels of patients admitted to the wards. For outpatient pathways, HCPs are provided with skills that help them encourage patients (and their families) to increase physical activity levels and, where appropriate, signpost patients to relevant sources of information and support, and refer patients to Movement is Medicine (MiM) sessions (detailed below).

Infrastructure

- **Physical activity assessment questionnaire integrated into SystmOne/TrakCare (outpatients):** patients attending outpatient pathways are provided with a pre-appointment questionnaire. There are three ways to complete the questionnaire: on paper when it is sent out to them with their appointment letter, online through a link sent out via text message (for those patients where the service has a mobile phone number for them), or on paper which is handed to them whilst they wait for the appointment. The questionnaire asks patients about their current physical activity levels (measured against the Chief Medical Officer's guidance[13]), if they would like to be more active and how they could be supported to be more physically active. The questionnaire prepares patients for a conversation about physical activity. If patients have completed the questionnaire online, it also provides the HCP with the results ahead of the consultation, informing the conversation. On the paediatric pathway, parents and guardians are asked to complete this on behalf of their child. The information gathered through the questionnaire is then logged onto SystmOne within MSK and TrakCare within the paediatric pathway. Patients who have not completed the questionnaire are asked the same questions during their consultation. Adult patients reporting physical activity levels below 150 minutes a week or child patients reporting less than 60 minutes physical activity per day, and/or any patient reporting barriers to undertaking physical activity, are offered support (i.e. advice and guidance, signposting, referral to MiM session) depending on the individuals' needs and preferences. There are also some situations where it is not possible to collect the physical activity information during the initial appointment. Where this happens, patients are asked about their physical activity levels and, where appropriate, engaged in a conversation about physical activity at a follow-up appointment.

[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832868/uk-chief-medical-officers-physical-activity-guidelines.pdf

- **Physical activity logged in nursing documentation (inpatients):** the physical activity levels of inpatients are assessed on an individuals' ability to perform certain everyday tasks on the wards (e.g. sit up in bed, get out of bed unassisted, walk with a Zimmer frame). Nurses on the wards record physical activity levels as part of their existing data collection documentation. Some of this information is then visibly displayed on patient 'I Can' boards[14]. The boards detail a range of information about patients' abilities, including how patients move around, whether they need assistance, how far they can travel, what footwear they wear, whether they can get washed and dressed independently, and whether they use a hearing aid or glasses.

- **Development of an outputs dashboard:** North Tees and Hartlepool developed an outputs dashboard which pulls data from SystmOne/TrakCare to provide a visual presentation of pathway activity, including the number of patients who have completed the questionnaire/ with physical activity assessed (and a breakdown of the total number of patients' physical activity levels against the UK CMO guidelines), patients who have said they want to be more physically active, patients who have had a discussion about their physical activity and patients who have been referred for further support with physical activity (including the type of referral). The dashboard is designed to be easy to interpret and provides transparency about how each pathway is performing.

- **Adaptation of Moving Medicine and PACC resources:** a number of resources are being used to support clinicians with discussing physical activity with patients. These include both Moving Medicine and Physical Activity Clinical Champion (PACC) resources – which have been tailored to suit the different pathway settings (e.g. added emphasis on sections relevant to specific pathways, such as paediatrics).

Culture (including environment)

The project plan also included activities to implement other environmental adaptations on wards (e.g. local landmarks on the walls to encourage mobility) and utilise the use of a day room for health and wellbeing activities (e.g. group exercises). However, a decision was made to not conduct adaptation activities, such as the introduction of floor markings, around concerns this may cause confusion for patients and conflict with social distancing rules. Access to a day room is still being negotiated within the trust, however, patients are able to engage in similar exercises at their bedside or elsewhere on the ward.

Other activities

- **Development of Movement is Medicine sessions (outpatients)**: MiM sessions are one-off education sessions. The sessions are delivered collaboratively between the trust, local authority and patient representation. During the sessions, a physiotherapist from the trust provides information about the benefits of physical activity; a representative from the local authority provides information on local opportunities to become more physically active; and, a patient representative tells their story of how they became more physically active. The sessions are delivered in the community (e.g. local leisure centre) close to patients' homes. The venue of the sessions is perceived as important because, for some patients, it will be the first time they have entered a leisure facility. Hosting the session in this setting aims to breakdown potential barriers and

[14] Boards displayed above patients' bed space as a simple and effective cue to staff about the patient's ability (e.g. 'I can walk with a Zimmer frame)

misperceptions around sport and leisure environments that might have put patients off attending them previously.

- **Rollout of Health Call application:** North Tees and Hartlepool are measuring the activity of patients who have attended a MiM session to better understand the impact of the intervention on physical activity levels. Health Call is a smartphone application which has been developed through a collaboration between seven NHS foundation trusts in the North East of England and North Cumbria to provide digital solutions for clinicians and patients. It has been developed to capture patients' self-reported physical activity levels, as well as specific information about the type of physical activity they are doing, over three, six, nine and twelve months after attending a MiM session. North Tees and Hartlepool plan to analyse to understand self-reported physical activity outcomes in the future.

- **HCPs discussing physical activity with patients (outpatients)**: where appropriate, HCPs are engaging patients in conversations about physical activity, through MECC conversations. MECC is a patient-led conversation that focuses on what a patient thinks they can do to make positive changes to their lifestyle.

- **HCPs and volunteers supporting patients to be more physically active on wards (inpatients):** a range of activities are being implemented to encourage staff, with the support of volunteers, to increase physical activity of patients on the ward and reduce the amount of time patients spend sedentary (e.g. encouraging patients to sit up in bed and/or wear their own clothes, encouraging patients to engage in bedside exercises).

5.5 Outputs resulting from Active Hospitals activities

The logic model for North Tees and Hartlepool denotes several measures of output which could provide early indicators of success for the Active Hospitals programme. These output measures are indicated in **bold** and discussed below.

- **The number of HCPs trained to deliver Active Hospitals interventions** to date is 94 (April 2021 to July 2022). 63 HCPs were trained from the MSK pathway and 31 were trained from the paediatrics pathway, including PACC and MECC training.

  Delivery of training to HCPs working on the inpatient pathways has been a challenge. This is because there is a minimum number of attendees required to be able to book in the PACC training. Given HCPs work on wards where patients require constant care and attention, it is difficult to find time for all staff to make the training as there is limited cover. Interviewees did, however, report engaging in online training resources.

- **The number of patients spoken to about physical activity** recorded to date is 7,013 (April 2021 to July 2022) (figures are for the MSK outpatient pathway only). The number has steadily climbed over the duration of the programme since the pathway first launched, with 251 patients spoken to about physical activity in April 2021, compared with 635 patients spoken to about physical activity in July 2022. Data for the paediatric pathway were not provided for this period.

- **The number of patients with physical activity levels assessed and recorded**[15] to date is 7,112 (April 2021 to July 2022). The large majority (99%) of patients were on the MSK pathway, whilst a small minority (1%) were recorded for the paediatrics pathway before Active Hospitals activities on the pathway were put on hold.

  Patients within the MSK pathway were also having their **physical activity level reviewed at follow-up appointments.** In total 1,199 patients had their physical activity levels assessed at follow-up (April 2021 to July 2022) (MSK pathway only).

- **The number of patients reporting wanting to be more physically active** to date is 3,899 (April 2021 to July 2022). The number being reported each month has increased as the project has matured, in correlation with an increase in the number of patients being spoken to about physical activity. The large majority of patients (99%) were from the MSK pathway with a small minority (1%) from the paediatrics pathway.

- **The number of patients signposted to resources or support services** to date is 2,793 (April 2021 to July 2022). The large majority of patients (99%) being signposted to resources or support services were from the MSK pathway with a small minority (1%) from the paediatrics pathway[16]. This includes signposting or referral to the following: advice and leaflets (about how to be more physically active); Hartlepool Exercise for Life, Live Well, MiM session referrals and Tees active referral.

  The number of patients being signposted to resources or support services is fewer than the number of patients reporting wanting to be more physical active. It is unclear why there is a difference in outputs. However, feedback from interviews suggests that difference could be due to range of things: some HCPs not engaging patients in conversations about physical activity and taking actions to link patients in with available support, but also patient choice, where they do not want support.

- **The number of patients referred for onto additional support services** to date is 619 (April 2021 to July 2022) (MSK pathway only). 328 patients were referred to the local authority and Active Health programmes for support with increasing physical activity. 291 were also invited to attend a MiM session. To date, 76 patients have attended a MiM session. This equates to 26% of patients referred to MiM sessions attending.

  Interviews with the lead and personnel delivering the referral services reflected on the relatively low uptake of MiM sessions which seemed to peak early on in the project. A number of factors were highlighted as to what might explain this, including the regularity of the sessions and the time between referral and when the sessions take place (e.g. patients who are referred at the beginning of the month may be less likely to attend a session hosted at the end of that month), some patients being unclear about what the session actually entailed (e.g. some patients reportedly turned up in gym kit) or were put off by the session being hosted in a leisure facility.

[15] The number of patients with physical activity recorded and assessed is higher than the number of patients spoken to about physical activity. This is because the former includes data from both MSK and paediatrics pathways, whilst the latter only includes data from the MSK pathway.
[16] The proportion of paediatric patients signposted to resources or support services is small because the pathway only ran for a short period of time.

"There has been a few people that don't turn up to the sessions, and that's a couple of reasons, really. That's one because sometimes we only put them on once a month. They could be waiting two months before they get into a session. Say, for example, they're being referred at the start of one month and then the next month it's for the session, the wait may be the month afterwards."
MiM sessions representative

Interviewees were keen to understand why patients were not taking up the opportunity to attend the sessions. They were also considering ways to improve uptake, through better communications about what the session entails and offering the sessions in alternative settings, away from leisure facilities (thought to be associated with exercise and sport).

"I also think sometimes the venue, whether that needs to be changed because after listening to some of the clients, they're saying sometimes you have to get two buses to get to the venue. So, is that a bit of a barrier for them to get there, and can the location be changed to be more in accordance to where the clients live? I know we can't accommodate everybody, but I think if we moved it around to different venues, it's cutting down on that barrier again."
MiM session representative

It was not possible to collect data on the **number of patients supported on inpatient wards to increase physical activity.** Patients have 'I Can' boards located at their bedside which are updated by ward staff. The boards detail patient physical activity capabilities (e.g. 'I Can dress myself'). There is no mechanism in place that captures this information as a whole, nor a record of the number of times 'I Can' boards are updated and/ or completed..

5.6 Outcomes and impact resulting from Active Hospitals activities

Stage 1 of the evaluation captured expected outcomes and impact of North Tees and Hartlepool Active Hospitals programme. Data gathered during Stage 2 aimed to explore the extent to which these expected outcomes and impact (shown in **bold**) were achieved. This is discussed below.

Impact on HCPs' capability, opportunity and motivation to promote physical activity

A number of short-term outcomes were anticipated for HCPs involved in delivering the Active Hospitals activities. It is hoped that the HCPs involved would better **understand the benefits of physical activity, know where to signpost and refer patients** for support, have **increased confidence to discuss physical activity with patients** (reflecting greater use of motivational interviewing by HCPs), and have **increased confidence to support patients with physical activity on wards.**

Findings from the interviews suggest that the Active Hospitals programme has increased and enhanced awareness about the benefits of physical activity and the need to encourage patients to be more physically active. The training (particularly PACC and MECC training), the introduction of the patient physical activity questionnaire, the introduction of physical activity data capture within the hospital IT systems (e.g. SystmOne) (for outpatient wards), in addition to the introduction of 'I Can' boards on inpatient wards, have been key factors in achieving this.

"I was wondering how this whole process would impact the nursing staff, but actually, on ACU, it was received really, really well, and the nurses were really keen to get people more active because obviously you don't want people just staying in bed and it's going to prolong their journeys, staying in hospital. If somebody's independent and then they take to their bed, then it only takes a matter of days before the muscles start to deteriorate and then they're going to need assistance with the transfers. Whereas if they'd been more independent to begin with, you might get them home sooner. So it's just changing that mindset. I think that's really worked because the nursing staff have been quite on board."
ACU pathway representative

"[The trainer] stressed the importance of using the tools and the importance of getting our population [to be more physically active]. I think what was highlighted is the lack of activity levels in the North East and obesity and co-morbidities and that. I think that's a bit alarming to know how bad health the Northeast is in and so forth."
MSK pathway representative

Results from the staff survey of HCPs working within the MSK pathway, also suggest an increase in HCPs' awareness about the UK CMO guidelines and recommendations for physical activity, and confidence to discuss physical activity as a result of the training. Interpretation of this data should be done with caution and cannot be considered statistically significant due to low sample sizes (47 at 'pre' and 'post' and 26 at six months).

Prior to the PACC and MECC training, 45% of HCPs said they were aware of the UK CMO guidelines and knew what the recommended levels of physical activity are, compared with 55% who said they were aware of the UK CMO guidelines but not sure what the recommended levels of physical activity are. A survey conducted right after the training found that 100% of HCPs reported being aware of the UK CMO guidelines and what the recommended levels of physical activity are. Furthermore, a survey of HCPs conducted six months after the training was delivered found that, of the 26[17] who responded to the survey, 92% said they were aware of the UK CMO guidelines and recommendations, with only one HCP saying they were aware of the UK CMO guidelines but not aware of the recommendations, and one HCP who said they were not aware of the UK CMO guidelines for physical activity (likely to be a new member of staff who did not attend the training).

Prior PACC and MECC training 79% of HCPs said there were confident in having conversations about physical activity. Post-training survey results show that this increased to 98% of HCPs. At six-month follow-up, 92% of HCPs reported feeling confident in having conversations about physical activity with patients. A survey for HCPs working on the paediatric pathway was also undertaken showing similar trends.

Interviews with HCPs working on the MSK pathway also suggests that the training and other Active Hospitals activities has better equipped HCPs to signpost and refer patients for further support with increasing their physical activity levels. This has helped them engage patients in motivational interviewing to encourage behaviour change among patients but also reinforce this by linking them into sources of local support.

[17] Respondents to the six-month follow-up survey may differ to those who took part in the initial pre and post training survey. Thus, results should be approached with caution.

"It's increased my awareness as to what community-based exercise we have in this area. I'm not from Hartlepool or Stockton. I work predominantly in Hartlepool. I don't work in Stockton at the moment. So, it's definitely increased my awareness as to what we have to offer in Hartlepool. Different services, different charities. Things like that, which has been good."
MSK pathway representative

"But I think having awkward conversations of, you've got backache and knee pain, and you need to lose weight, but actually, using this questionnaire takes away that awkwardness of, 'oh, yeah, actually, I can, oh, I'll, or we can get you looking at the Live Well website' or that type of thing. I think it opens up a lot more conversations in that way and it's given us a greater awareness and it's helped the patients, and we come across in a more professional way."
MSK pathway representative

Interviews with HCPs and a volunteer working in the ACU pathway indicate that confidence in encouraging patients to be more physically active has also increased. Whilst as suitable training date has yet to be agreed, tailored tools and resources are being used by staff to help them deliver interventions on the ward, including the 'I Can' boards.

"With the ones that need therapy input, what we've been trying to do is obviously we go and assess the patients in terms of the mobility, the transfers, how they're managing in terms of like their ADLs and things like that and then we try and progress the mobility if they're not at the baseline, and we've been using the Active Hospital 'I Can' boards. So once we've assessed a patient we'll update their 'I Can' board so anyone can come in and see if they need an assistance of one, assistance of two if they're independent, how they get themselves washed and dressed and then it helps out the whole team in the sense that they could look at that and then no, right."
ACU pathway representative

"Well, [the 'I Can' board] means is if there's a new nurse or new doctor, a consultant or anybody around the bedside, they can see at a glance. It's like an A3 sheet, laminated, on the side of the bed, and it just has quick questions about how mobile they are. So, the patients usually answer those questions themselves. Can they move around independently, or do they need a walking frame? Or are the bed bound or do they just, if they're OK with a stick, how far can they walk? Is it a metre or 5 to 10 metres or further? Can they wash and dress themselves independently? Do they have glasses or a hearing aid? What do they wear on their feet, is it the gripper socks or their own footwear? So, we fill, as volunteers, we can fill them in and talk to the patients about that."
ACU pathway representative

It is expected that increases in awareness, confidence and understanding would lead to **physical activity being more routinely discussed with patients** and an **increase in referral to MiM sessions and other forms of support** (e.g. local authority/ Active Health programme), as well as **staff themselves participating in promotion activities**. It was also expected that the data collected about patient physical activity levels would **provide information in relation to patient physical activity levels against the UK CMO guidance.**

Findings from the interviews, in addition to the output data (presented above) indicate improvements to the level of routine discussions about physical activity with patients and referrals for further support to increase physical activity. The introduction of the physical activity questionnaire and prompt within the medical records keeping software (e.g. SystmOne) to discuss and note down patients physical activity levels and support needs, has helped make the conversations more routine within pathway practice.

However, there we some indications that more work is needed to ensure these conversations are taking place consistently across all HCPs within pathway teams.

"I think as soon as it got put onto the template that we use, it's a lot easier because it's often, you go through a process of, like you're doing now, asking the questions. And when that's been added in, not everybody does it, but it does make it more in your mind. Because you would have these conversations with people anyway in our sort of service because we're physios and we're talking about activity and exercise. Most people will have had some sort of conversation. It's just have you recorded it? Have you thought about it formally in order to then link them to something that's going to make a change to them? So, having it added to the template was definitely a good thing because that just brings it into your process, or it does for me. I know not everybody does them as much as me."
MSK pathway representative

There are also positive indications that the project is generating information about differences in patient physical activity levels against the UK CMO guidance. For example, the data dashboard which monitors the Active Hospitals activity for outpatient pathways collects the patient physical activity questionnaire data, allowing users to see how many patients meet or do not meet the recommended guidelines. The Health Call app also has the potential to provide useful data to support this on a more regular basis; however, analysis of this data is a work in progress.

Medium-term impacts were also expected for HCPs involved in delivering the Active Hospitals activities. It was hoped that the achievement of shorter-term outcomes, such as HCPs feeling more confident to support patients with physical activity on wards would help **reduce the demand on staff to support patients moving around the ward.** In addition, it was anticipated that Active Hospitals activities would lead to **increased levels of physical activity among HCPs**.

Findings from the interviews, combined with data collected on the ACU ward, suggest there are promising signs that some patients are becoming more independent on the wards and reducing the demand on staff and volunteers to support them with moving around the ward. For example, analysis of 'up and dressed' audit data (a monthly audit conducted to count the number of patients dressed and/or out of bed on the ward) shows that the number of patients out of bed has increased over the duration of the programme; 77% of patients out of bed in November 2021, compared with 100% of patients out of bed in July 2022. The audit data is also supported by anecdotal evidence from the interviews.

"It's going to get people more active because ultimately, they want people more active. [The nursing team] want them to be getting up and about not buzzing all the time and wanting a commode. They're wanting them to get up and walk to the toilet. I think it has made them a bit more proactive at seeing how much more patients can do, rather than necessarily coming straight to us as a therapy team and saying, 'oh, can you get them out of bed? Can you do this, that and the other?'"
ACU pathway representative

HCPs were less likely to report the Active Hospitals activities influencing their own physical activity levels, despite increased awareness of its importance. However, most interviewees reported that they already led fairly physically active lives and, thus, met the UK CMO guidelines. Given that the majority of interviewees were physiotherapists (or a physical education teacher in the case of the volunteer), this may be expected.

"I've always met the guidance for physical activity levels. I am aware when, I almost feel guilty if I don't. If I have a week off or what have you, or I'm on annual leave for a week, you almost feel guilty in a way. It's definitely made me more aware as to my levels of physical activity as well."
MSK pathway representative

"You'd say that, but I'm probably a lazy physio. Yeah, I'm not quite the one that would always join in the triathlons and things like that. But generally, to be fair, physios do. I know a lot of physios that do a lot of triathlons and things like that, but I think, I don't know. I suppose it's probably made us more aware of the benefits of physical exercise but I don't know if it's necessarily impacted on us in our own daily lives, to necessarily take up more exercise or things because I think it depends on your personal circumstances, really, doesn't it?"
ACU pathway representative

Impact on patients' attitudes and behaviour

As outlined in the logic model for North Tees and Hartlepool, the intended outcomes and impact for patients, as a result of the Active Hospitals programme, were that **patients and families have a better understanding of the benefits of physical activity, increased levels of physical activity** and **increased acceptability and confidence among patients to be more physically active.**

Interviewees were able to provide anecdotal examples of how patients had benefitted from conversations about, and support with, increasing their physical activity. For example, patients on the MSK pathway were reported to have changed health behaviours, such as walking more and eating healthier (as individuals and families), reported reduced pain and improved physical function of MSK related conditions, as well as building social connections.

"And after speaking to the group, sometimes you'll give them ideas. If they live close to one another we said, 'why don't you set up a little WhatsApp group, just to communicate with each other when you're going for a walk?'. And now they meet on a regular basis."
MiM session representative

"But in terms of patients, the benefits of having those conversations is, it's invaluable because it plants that seed in patient's head that 'maybe the reason that I am in pain or that I have this chronic pain is because I do nothing. Maybe if I started to do something and build up that tolerance to load throughout my body, I build up that ability of me to load joints'. You start to slow down arthritic changes, you start to slow down those age-related changes, the more active we can be."
MSK pathway representative

There is further quantitative evidence to suggest benefits for patients within the ACU pathway. Data from the 'up and dressed' audit suggests promising improvements for the ACU pathway. The audit helps to provide an indication as to the level of independence and mobility of patients, assuming that more patients dressed in their own day clothes is a good sign they are getting up out of bed, moving around, and ultimately being more physically active. Data collected on the proportion of patients dressed in hospital clothes, own pyjamas, or own day clothes shows a steady improvement in the number of patients recorded as wearing their own day clothes. In November 2021, 73% of patients were recorded to be wearing their own pyjamas with no (0%) patients recorded as wearing their own day clothes. In contrast, data recorded in July 2022 shows that 62% of patients were dressed in their own day clothes, compared with 38% of patients dressed in their own pyjamas and no (0%) patients wearing hospital clothing.

Interviewees reflecting on the ACU pathway also acknowledged positive benefits for patients but felt that more time was needed before they were fully able to realise the impact (e.g. once all nurses on the ward have been PACC trained and were engaging more in supporting physical activity).

"I think it's hard to say at this point, you can definitely see cases of it where it's helped. I think probably the odd few patients where you've been able to promote it. You can probably think 'oh, actually I think that that's helped get them out of hospital sooner'. But I think it would take a long time before we're able to see the long-term benefits, because I think it needs to be more routinely used and routinely promoted. I think with staffing pressures and Covid, everything has just been like here and there. It's just getting that into daily practise, really, and I think once it will, would be in daily practise and everybody's up to speed with everything."
ACU pathway representative

Wider impacts

At a broader level, North Tees and Hartlepool anticipated **creating a business case** to support the continuation of the Active Hospitals activities beyond the conclusion of the pilot.

Information from monthly updates with the pilot site lead and NHS TU indicate that progress towards adopting the Active Hospitals activities is showing signs of promise. For example, the activities implemented within the MKS pathway are now business as usual. This has been facilitated through the integration of the physical activity questionnaire for patients, and the requirement for HCPs to record patient physical activity levels against the UK CMO guidelines in their clinical notes and to provide further support with physical activity to patients where required. Alongside this, the MiM sessions will continue to be delivered through the trust and local authority partnership, including plans to open a mechanism for self-referral, rather than patients having to be referred by the MSK pathway, with support from local social prescribing teams.

The Active Hospitals activities are also being expanded to include other pathways. For example, there are plans to transform other inpatient wards into Active wards through a package of good practice, such as 'I Can' boards, 'up and dressed' audits, physical activity exercise booklets and volunteer support. Additionally, North Tees and Hartlepool have added a new pathway within the Community Integrated Assessment Therapy (CIAT) team (a service that support patients discharged from hospital in the community) to their Active Hospitals activities. They have introduced the patient physical activity questionnaire, which is built into HCPs' assessments, and are also able to refer patients to MiM sessions.

"Within CIAT they now have the questionnaire that we implemented in the MSK pathway, which is now on there, built within their assessments as well. Identical questionnaire and also access for them to refer into the Movement Is Medicine group."
Active Hospitals lead

5.7 Acceptability of the Active Hospitals activities

Acceptability of the Active Hospitals activities to HCPs

Overall, the physical activity questionnaire, focus on physical activity conversations and information around where to signpost and refer patients for further support with increasing physical activity, has been well received by staff at North Tees and Hartlepool. In particular, staff working within the MSK pathway (specialising in physiotherapy) were particularly positive about these activities. Interviewees highlighted that having conversations about physical activity was common among physiotherapists but welcomed

the opportunity to have a greater focus and gain more detailed knowledge about the benefits of physical activity, for MSK patients and the wider population.

"I know that the physical activity is relatively low. Musculoskeletal related pain is high. General health in the population's not great. I think the more conversations we can have, it's only going to be beneficial to the population."
MSK pathway representative

Staff working within the ACU pathway were also supportive of the Active Hospitals programme, particularly amongst those HCPs providing physiotherapy on the wards. However, there were suggestions that more engagement with the PACC (e.g. through training) and time was needed for these activities to become embedded and routinely carried out across the nursing team. Pressures on the team's capacity to engage in the training, due to limitations to staff capacity caused by pressures of the pandemic, was highlighted as the main barrier for limiting the speed of implementation and delivery of activities. Nevertheless, it is hoped that over time, learning from the ACU pathway and the elderly care pathway will enable the trust to roll activities out in other wards (e.g. maternity).

"It's hard to try and find the right time to bring it all back in and then keep up that morale with staff because sometimes it can be seen as, it is like an extra job. I think that's what the nurses were a little bit worried about, when we'd had, some of the meetings, is it going to be extra work? Doing an extra bit of paperwork and things like that? I think they'd had seen that as more of a challenge from, like our side, it fitted in with what we were doing anyway, but then, from a therapy."
ACU pathway representative

"There's an understanding at the minute that we've only just started on [the elderly care pathway] and ACU, and we really need to get those pathways going and really learn what works and what doesn't work first before we start putting it anywhere else."
Active Hospitals lead

As mentioned earlier, roll out of the Activities Hospitals activities were also paused on the paediatric pathway, with little data being inputted for the physical activity questionnaire and no referrals being made to the MiM sessions. This has been attributed to staff shortages caused by the pandemic and the lack of leadership within the pathway. However, information from recent pilot site updates with the lead and NHS TU indicate that a relaunch of the activities is being discussed in team meetings and work towards starting delivery again is underway, given the perceived value of the benefits of encouraging young people and their families to increase their levels of physical activity.

"I think they struggled because of staff shortages and just general staffing over Christmas, but we haven't seen an increase even into the new year, and so that's where our actions are, to pick that up with more senior management, to see if we can get some more support into there. I've said all along, one of the problems that I think we've hit here, and it's not for want of trying to change it but it's being looked after by one person in the paediatric outpatient pathway, which we know just doesn't. It doesn't work. We need to get more of a team approach going, and that's our goal."
Active Hospitals lead

Acceptability of the Active Hospitals activities to patients

Finding from the interviews with HCPs suggest there is a mixed response from patients about having conversations about physical activity and receiving support to increase physical activity levels, across the range of patient cohorts and population demographics. Broadly speaking, patients are open to discussing physical activity and HCPs feel that the patient questionnaire, combined with the skills and

knowledge about the importance of physically activity has supported in being better able to engage patients in conversations.

"I guess, for us, where we fit it into the, our pathway, it's an easy in because we've put in a part where we're talking about their general health, their hobbies, what they're finding difficult with their function. So, exercise often creeps into that conversation anyway. We've, it's not at the beginning or the end, it's slotted right into a part where you would be having similarish conversations as well."
MSK pathway representative

"I have to admit we're getting a really good mix, getting a really good variety. I think from that point of view, it's not just mid age people or people without significant comorbidities because we're getting a variety of ages with different comorbidities, with different activity levels and beliefs and stuff."
MiM session representative

The patient interviewed as part of the evaluation reported on their experience of the MSK pathway and MiM sessions. They were open to having a conversation about physical activity and were pleased to attend the MiM session. However, they expressed some of the challenges they faced in taking up the advice and support provided through the conversation and MiM session. This was linked to other, non-MSK related health conditions that affected their ability to do physical activity.

"I can't do really strong exercises that they were talking about. Even in a class, people are ahead of me because of my breathing problems." MSK pathway patient

The patient reported that they will ask for more tailored activities that reflect what they feel capable of doing at their next appointment with the hospital.

The challenges some patients face with physical activity was also mentioned by some HCPs who reported some patients being reluctant to engage in conversations about physical activity, either because they perceive their health condition to limit their ability to engage in physical activity or because they are just not interested.

"I think having conversations about physical activity, we don't have them straight away because they are a lot more resistant, based off the fact that they might have experienced flare ups related to physical activity, because quite often we have patients that have very, very low levels of physical activity and low thresholds of the onset of pain related to physical activity. That's why we have the conversations at a slightly different time when we feel like we can start to increase exposure of physical activity. In Core Outpatients, again, going back to we do have them conversations early on in comparison to the CPM Team… I feel like it almost helps us with our clinical reasoning. It helps us to get patients to understand that actually, they were in really low levels of physical activity, and then I try and always link it to my assessment."
MSK pathway representative

The level of attendance at the MiM sessions is also lower than expected. This suggests that more needs to be done to convince some patients about the importance of physical activity and support with being more active, as well as understanding the potential barriers patients face in attending the sessions.

6 Nottingham University Hospitals NHS Trust

This chapter examines the work of Nottingham University Hospitals NHS Trust.

6.1 Summary of approach

Nottingham has the ultimate ambition of improving patient care through creating an environment that offers health options as the default option, where physical activity is promoted and encouraged, for both staff and patients. Five pathways are participating in the Active Hospitals programme: paediatric endocrinology (outpatients), hepatobiliary – stable fatty liver clinic (outpatients), hepatobiliary – ward F21 (inpatients), gestational diabetes – physio (outpatients), and musculoskeletal (MSK) (outpatients). The prehabilitation (for colorectal surgery) was initially included in the project plan but has since run parallel to the Active Hospitals project[18]. A logic model which summarises the Active Hospitals programme at Nottingham can be found in the appendix of his report.

Nottingham's launch of the Active Hospitals programme was delayed by several months whilst they recruited for a project lead. The project lead was not appointed until November 2021.

The launch of each pathway has been staggered throughout 2022:

- Paediatric endocrinology (outpatients) went live in February 2022;
- Hepatobiliary (stable fatty liver clinic (outpatients) went live in April 2022;
- Ward F21 (inpatients) went live in August 2022;and,
- Gestational Diabetes (outpatients) and Musculoskeletal (MSK) physiotherapy (outpatients) are both planned to launch in the Autumn 2022.

A wide variety of activities are happening with these pathways in relation to Active Hospitals, with the potential for activities to be rolled out across other pathways within the trust. Central to these activities has been engaging directly with each clinical pathway to implement changes that will influence the physical activity culture within each pathway and across the trust more broadly.

Nottingham's Active Hospitals programme builds on work taking place at the trust to support a wider prevention agenda which includes the promotion of physical activity within secondary care.

6.2 Underpinning Principles

A number of principles underpin the Active Hospitals activities being undertaken at Nottingham. These are:

[18] The prehabilitation pathway was initially intended to be part of the Active Hospitals project; however, it was run separately to the project activities. Thus, this report does not include further information of the pathway and the evaluation did not cover this pathway in its activities.

- **Health improvement:** this aims to support and deliver a range of health improvement initiatives, including in the workplace, promoting a healthy hospital environment, and making health and wellbeing part of everyday conversation, through the Make Every Contact Count initiative (MECC).

- **Community:** the trust has built links with external organisations that influence the health of patients (e.g. within primary care and the voluntary sector). Nottingham aims to enhance these links as part of the Active Hospitals programme so that patients are supported to engage in, and maintain, being physically active outside of secondary care.

- **Population health management:** linked to the above, Nottingham places considerable importance on working with system partners (e.g. Nottingham City Council, community and voluntary organisations), particularly around using data to better understand patient behaviour, to support changes across patient pathways.

6.3 Evaluation activities

Stage 1 of the evaluation involved: interviews with five members involved in implementing the Active Hospitals activities (June/July 2021); a review of programme documentation and data collected; regular attendance at the monthly steering group meetings with NHS TU; and a review of the draft logic model and evaluation data collection activities specific to Nottingham.

The following evaluation activities have been completed with Nottingham as part of Stage 2.

- Interviews with eight members of staff including the project lead and one member of the Steering Group, two clinical leads in managerial roles and three clinicians in clinical-facing roles from both of the selected pathways, as well as one personnel delivering referral services. These took place between April and July 2022.

- A review of the evaluation and additional data collected by the trust. This data captured intended outputs from the Active Hospitals activities such as the number of HCPs trained.

- Regular attendance at monthly steering group meetings with the NHS TU.

Approximately 30 patients were invited to participate in an evaluation interview. However, none contacted Ipsos directly to express an interest in being interviewed. Therefore, no interviews were completed with patients from Nottingham.

6.4 Active Hospitals activities

Outlined below are the main activities being undertaken by Nottingham as part of the Active Hospitals programme. This list has been updated since it was first presented in the Stage 1 evaluation report.

Table 6.1: Summary of Active Hospitals activities at Nottingham

Activity type	Pathway	Intervention
Workforce	All	Recruitment of a project lead to drive and manage the delivery of the Active Hospitals activities
	All	Education and training of HCPs to support the delivery of the programme
	All	Develop physical activity advice and links to community services engaging with organisations located within community settings to provide additional and tailored support to patients close to where they live
	All	Coaching and training of HCPs to alert them to the new referral pathway, and upskill them to promote physical activity
	All	Sharing learning and training nationally on the promotion of physical activity

Infrastructure	All	Development of physical activity reporting systems within pathway systems
Promotional	All	Raising awareness of, and engagement with, Active Hospitals across the trust and local community
Culture (including environment)	All	Behaviour change activities to encourage both staff and patients to change their behaviour around physical activity across the trust (e.g. Sunshine Walks project)
Other activities	All	Referral to further support with increasing physical activity

The activities being undertaken at Nottingham are expanded upon below.

Workforce

- **Recruitment of a project lead:** Nottingham appointed a project lead to drive and manage the delivery of the Active Hospitals activities. The project lead came into post in November 2021 and has a background in occupational therapy and has managing projects within Nottinghamshire County Council. They were responsible for coordinating the project and its activities, including developing, setting up and delivering the project education and training activities, liaising with each pathway about necessary changes to conduct and collect data around conversations about physical activity, alongside engaging with the trust's data management and IT teams.

- **Education/ training healthcare professionals:** A range of training has been delivered to HCPs as part of the project. This includes, PACC training, training delivered by the project lead and other clinicians with expertise in physical activity (including tailored literature and materials for specific pathways) and less formal training delivered by staff working in each pathway to raise awareness of the Active Hospitals programme and the importance of discussing physical activity with patients. HCPs are being encouraged to have conversations about physical activity with patients and their families, signpost to relevant resources and support services and refer on to local support services (including social prescribing leads/ link workers).

- **Physical activity advice and links to community services:** The project lead has engaged with organisations located within community settings to provide additional and tailored support to patients close to where they live. This includes developing links into local authority run programmes and services (e.g. Notts Active) as well as links into social prescribing services.

There were also plans to pilot physical activity interventions by fitness and exercise rehabilitation instructors, develop a Physical Activity Directorate to support patient care and steer the project, and establish a prehabilitation collaborative between ambulatory and SEM specialists to provide governance and oversight for Active Hospitals activities within prehabilitation pathways. However, these plans were proposed early on into the initial design of the project, the scope of which changed overtime and were not considered once the project lead was in place and the project officially launched. It is unclear whether these plans will be revisited at some point in the future.

Infrastructure

- **Development of physical activity reporting systems within pathways:** To support and monitor pathway activity, reporting systems (i.e. the recording of clinical notes in a digital format) were adapted to collect data on the number of patients assessed for their physical activity levels, number of physical activity conversations delivered and detail of patient needs in relation to physical activity and appropriate actions taken (e.g. signposting, referral for more support).

Promotional

- **Raising awareness of, and engagement with, Active Hospitals:** A range of promotional work is ongoing throughout the trust and with system partners to raise awareness of the Active Hospitals initiative. For example, presenting the initiative internally to pathway governance boards and externally to local social prescribing delivery groups, attending regular meetings with Active Notts[19] and ABL (a better life) Health[20] and other engagement activity with smaller projects/ initiatives (e.g. 'Sunshine Walks' and 'Arts Trails' projects, see below for more detail). The ambition of the Active Hospitals programme is to encourage all pathways across the trust to be more aware and motivated to discuss and encourage physical activity among patients. The project has also created a dedicated webpage for the Active Hospitals initiative on the trust website, detailing information about the initiative, as well as many links to information for patients and staff on activities to increase physical activity within hospital and community settings.

Cultural (including environmental)

- **Behaviour change activities:** Nottingham have engaged in activities to encourage both staff and patients to change their behaviour around physical activity across the trust. The roll out of PACC training has been instrumental in engaging staff with the programme and equipping them with new knowledge and skills about the benefits of physical activity. This has involved training a number of staff to deliver the PACC training, forming an internal 'Champions Network'. The network aims to help train staff in new pathways and to maintain levels of training among already engaged teams. Nottingham have also introduced the 'Sunshine Walk' and 'Arts Trails' projects which aim to encourage patients, staff and visitors to increase physical activity levels when on hospital grounds. The projects provide maps showing different walking routes throughout the hospital campuses and city.

Other activities

- **Referral to further support with increasing physical activity:** Where appropriate, patients are being offered additional support that focuses specifically on increasing physical activity. Nottingham are early in the development of these activities, but have already delivered a group session for paediatric endocrinology patients to find more about how they can get active in their local area, with more being planned in the future. They are also linking in with local social prescribing teams to establish a referral route so that patients can be further signposted or referred for support in becoming more physically active.

  ABL Health is one example of a support service that has been engaged to support the Active Hospitals programme. Referrals can be made via the website, either through the HCP completing the form on the patient's behalf or by the patient themselves. Alternatively, patients can be referred via email directly into the service or through calling the service's admin team. Once a referral is received, patients are triaged depending on level of need, assigned a key worker and then work closely with one of the healthy lifestyle advisors. The advisor will then call the patient, discuss what support, ambitions or goals they may have around physical activity and develop a support offer for a duration of 12 weeks. The offer may include attending different types of exercise classes, tailored

[19] https://www.activenotts.org.uk/
[20] https://www.ablhealth.co.uk/

to the patient's desired level of intensity, as well as encouraging them to develop other types of physical activity into their daily life (e.g. walking more).

6.5 Outputs resulting from Active Hospitals activities

The logic model for Nottingham, denotes several key measures of outputs that provide early indicators of success of the Active Hospitals programme at Nottingham. The data gathered in Stage 2 aimed to explore the extent to which these expected outputs (shown below in **bold**) were achieved. These are described below. It should be noted that data collection limitations mean that not all of the outputs are accounted for here, as the project is in the process of establishing data collection methods for some pathways.

- **The number of HCPs trained to deliver conversations about physical activity** to date is 102, across four pathways: hepatobiliary (stable fatty liver), hepatobiliary (ward F21), paediatric endocrinology and gestational diabetes (physio) (April 2021 to July 2022). HCPs received PACC training including tailored themes specific to their pathway speciality. The training was delivered by a PACC trainer. The roll out of further PACC training is planned for other pathways, including train the trainer sessions (e.g. PACC and MECC training) to support the training of new staff joining established Active Hospital pathways.

- **The number of patients spoken to about physical activity** to date is 103, across two pathways: hepatobiliary (stable fatty liver) and paediatric endocrinology (April 2021 to July 2022). Of these, 40 were **new patient activities** who were new to the pathways. It is expected that these numbers will increase over time, as other pathways go live with the Active Hospitals programme and new patients receive care and treatment through pathways. The recording of pathway activity is yet to be finalised across all pathways, as data collection was not meant to formally launch until autumn 2022.

- **The number of patients whose physical activity is assessed and recorded** to date is 149, across three pathways: hepatobiliary (stable fatty liver), paediatric endocrinology and gestational diabetes (physio) (April 2021 to July 2022). There are plans to implement 'I Can' boards[21] within the hepatobiliary (ward F21) as well as implement data collection measures across all pathways.

- **The number of patients signposted to resources or support services** to date is 137 across two pathways: hepatobiliary (stable fatty liver) and paediatric endocrinology (April 2021 to July 2022). For example, patients on the paediatric endocrinology pathway were invited to an education group (held in April 2022) informing patients and their families about opportunities for engaging in physical activity within their local area, with plans to run other sessions in the future (e.g. with Education FC[22]).

  Whilst there is little data that enables the tracking of specific services patients have been signposted or referred on to, feedback from the lead at ABL Health highlighted the intention to start monitoring patient referral numbers in the near future. It is likely that further monitoring will be

[21] Boards displayed above patients' bed space as a simple and effective cue to staff about the patient's ability (e.g. 'I can walk with a Zimmer frame)

[22] http://educationfc.co.uk/

possible for other support services as they mature and become more established as part of the pathways.

Data on the number of patients who have taken up Active Notts and/or health promotion gym services has yet to start being recorded. This is in part due to direct service delivery being establish between Active Notts and the trust. It is hoped that the collection of data on patient uptake of services to assist with physical activity will begin in 2023.

6.6 Outcomes and impact resulting from Active Hospitals activities

Stage 1 of the evaluation captured expected outcomes and impact of Nottingham's Active Hospitals programme. The data gathered during Stage 2 aimed to explore the extent to which these expected outcomes were achieved (shown below in **bold**) were achieved. This is discussed below.

Impact on HCPs' capability, opportunity and motivation to promote physical activity

A number of short-term outcomes were anticipated for HCPs involved in delivering the Active Hospitals activities. Primarily it is expected that the HCPs involved would have **an improved understanding around the benefits of physical activity**, feel more **confident in having conversations about physical activity**, **increase the level of routine conversations about physical activity** and **improve the level of routine data collected by pathways about patient physical activity levels.** It is also expected that **staff themselves participate in promotional activities in support of physical activity** and the **trust environment is more focused on promoting healthy lifestyles, increased physical activity amongst staff** and **improved links between the trust and community services.**

Findings from the interviews suggest that the Active Hospitals programme has improved understanding around the benefits of physical activity. Most HCPs expressed that they had some level of understanding about the benefits of physical activity prior to being involved in the programme. There is an indication that those HCPs working in professions more focused on physical activity (e.g. physiotherapy) or more physically active themselves (e.g. cycle to work, undertake daily physical activity) were more likely to express a greater level of understanding about the benefits of physical activity compared to other types of roles. However, after attending the PACC training and receiving tailored tools and resources (e.g. exercise sheets given to healthcare assistants on the hepatobiliary (ward F21) pathway) from the project lead and SEM consultant, HCPs reported feeling more confident in having conversations about physical activity.

For example, HCPs working within the paediatric endocrinology pathway, predominantly treating children and young people with diabetes, stated that the training had encouraged them to engage patients in deeper conversations about physical activity than they would have previously. In particular, they felt more confident and better equipped to focus conversations around encouraging patients to engage in physical activity where patients might be concerned about potential negative impacts on their condition, thus hesitant to increase physical activity levels.

"I feel really confident with advising people on being active and what is a safe level of activity and especially thinking, 'OK, it's fine to be out of breath'. Sometimes we have families say, 'oh but oh, I've got asthma and I get out of breath'. And you think, 'well actually it's very normal to get out of breath when you're going up the stairs', and I'm very comfortable with giving them the advice about how out of breath they can be."
Paediatric Endocrinology pathway representative

Findings from interviews with HCPs also suggest that the level of routine conversations about physical activity has increased. These improvements were thought to be a result of the awareness raising

activities of the project lead, as well as encouragement from consultants leading both the paediatric endocrinology pathway and the hepatology pathways at team meetings. The adaptation of clinical note taking software (e.g. Diamond, Medway) which asks HCPs to record information about physical activity levels and needs, was also viewed as an influential change to how consultations with patients were conducted that supported more routine conversations about physical activity, as well as improving the routine collection of data on patient physical activity levels.

"For outpatients is a Medway note… that has the physical activity calculator on it with a bit of notes to help [HCPs ask questions, such as]… have you done anything about this, type of signposting, tick the box… [W]e wanted it to feel like quite a generic set of questions with the advice in. So in the end, this is scalable and can apply to anybody's clinic."
SEM Specialist

Within the hepatobiliary (ward F21) inpatient ward, healthcare assistants are being provided with exercise sheets detailing different exercises that can be carried out at the bedside (e.g. sitting patients up in bed to engage core muscles). The sheets aim to encourage staff to engage in informed conversations with patients about physical activity and deliver direct interventions to encourage patients to be more physically active. They have also introduced a digital physical activity calculator on patient activity whilst on the ward.

As mentioned previously, Nottingham experienced delays in launching the programme and ,therefore, are at an earlier stage of mobilisation and delivery compared to other sites, including developing links with support services. Nevertheless, some HCPs reported a greater awareness of additional support to encourage and promote healthy lifestyles for patients. For example, one HCP mentioned encouraging patients to access the Sunshine Walks project, whilst others mentioned the option of referring patients on to ABL Health for tailored support with increasing physically activity levels.

The project lead is undertaking a range of activities to establish and improve links between the trust and community services. The link with ABL Health is an example of a new relationship established between the trust and a community service. However, feedback from HCPs and personnel delivering referral services suggests that current referral numbers to specific support services are low. There is an expectation that referral opportunities will become better utilised by all staff once they have more established offers for each pathway.

HCPs were also asked about medium-term impacts of the programme, such as the influence Active Hospitals has had on increasing levels of physical activity among staff. All interviewees felt that the Active Hospitals programme reinforced the importance of physical activity for themselves as well as patients. This included HCPs who admitted that they themselves found it difficult to meet the recommended levels of physical activity set out in the national guidance. However, there were several HCPs who expressed already achieving the recommended levels of physical activity and, thus, the programme had little impact on their behaviours.

"I would say actually it has, so I normally try to do some form of exercise a couple of times a week and I struggle with being overweight myself, so I'm very conscious of that and I think it has helped me to reduce my sedentary behaviours. So that's helped me."
Paediatric Endocrinology pathway representative

Impact on patients' attitudes and behaviour

As outlined in the logic model for Nottingham, the intended outcomes and impact for patients as a result of the Active Hospitals programme, were that patients **increase their physical activity**, **better**

understand the benefits of physical activity for themselves and their families and **patients are more accepting and confident to be more physically active.**

Findings from the interviews with HCPs and personnel delivering referral services indicate that there is optimism about the potential benefits for patients associated with the Active Hospitals activities. HCPs provided anecdotal accounts of patients who have made significant changes to their health behaviours, increasing physical activity levels but also changing other lifestyle behaviours (including that of their families).

"I've got one chappy that has given up drinking alcohol, changed his diet completely and now goes either walking or he does some form of activity every day. And actually his blood results have massively changed. His weight's changed. He tells me he feels like a new man, he's got so much energy and he feels so much better. And I've actually discharged that guy because he's done so well. But he took his wife on the journey with him. So they've done that together and they will continue to have that support."
Hepatobiliary pathway representative

There were indications that interventions have led to improved condition/ disease management and associated mental health improvements. For example, HCPs working on the paediatric endocrinology pathway reported spending a considerable amount of patient contact time supporting them to manage their insulin intake. They felt that, given the impact physical exercise can have on blood sugar levels, increasing physical activity would help patients understand how to manage their sugar levels better.

"I would hope that when we now talk to families, young people, will feel more empowered to do activity, particularly around our Type 1 diabetes patients. So they'll be less worried about going low, because we've talked about the benefits and we've reduced [insulin levels], we've discussed it in more detail about what to do and how to manage exercise for them."
Paediatric Endocrinology pathway representative

Better management of health conditions was also felt to lead to reductions in anxiety and stress experienced when living with a long-term condition, resulting in better mental health.

"I would hope that the anxiety is reduced and I would hope that the amount of, they're more willing to try different things and more activity."
Paediatric Endocrinology pathway representative

HCPs working in the hepatology (ward F21) pathway anticipated considerable benefits for patients on inpatient wards who engage in physical activity during their hospital stay, mitigating against risks associated with deconditioning. This included potential reduced length of stay. The pathway team are looking at measuring handgrip strength, which is correlated with mobility for this population.

"These individuals will develop pneumonia at the drop of a hat and some of them are, have got so little physiological reserve that when they do develop pneumonia, we don't escalate them to ITU because they won't get off a ventilator, so it can be fatal. On the one hand you've got young, relatively belligerent individuals that don't wish to move, don't wish to do stuff, on the other hand they are incredibly frail and incredibly vulnerable. And if you can get them to be, actually inhaling with the whole of their lungs not just the top part of their lungs, actually stood up straight and not slumped over, then you're reducing the chance they're going to get hospital acquired pneumonia and therefore you're reducing the death rate. So really quite impactful if we can get people doing it."
Hepatology pathways representative

Wider impacts

More broadly, the work of the project lead, with support from the steering group, aims to **influence the culture of the trust placing greater emphasis on the importance of physical activity**. The project lead's engagement work, for example presenting at different speciality meetings, is the prime approach to achieving this. As the programme matures and the project lead builds the reputation of the programme, through embedding it within the six pathways and developing a broader range of links with the community, it is hoped that more pathways will become involved in the programme activities. This would support the trust in its ambition **play a key role in promoting physical activity across the region** as well as support a potential **business case** for further investment.

6.7 Acceptability of the Active Hospitals activities

Acceptability of the Active Hospitals activities to HCPs

Broadly, staff welcomed the focus on physical activity promotion across the participating pathways. Reception was particularly welcomed amongst those with specialties that typically included physical activity with its remit (e.g. physiotherapy) and individuals with a special interest in promoting physical activity.

"A lot of people feel that when they develop diabetes, that's it, they can't do anything, their life's over. And we, as a team, have actively promoted sports and activity all the way through…We were keen to be involved because, partly because everyone always forgets about kids. Everything is always about adults, and they forget that 25% of anyone in health care at any time are under 18. And also, because we recognised that there was a need. Whether you've got type one diabetes or not, we know that children are massively inactive and not doing enough, and, so, trying to find ways that we might be able to encourage them to be more active."
Paediatric Endocrinology pathway representative

"I am a Hepatologist, so I, my clinical workstream is focussed on people with lifestyle related liver disease in the mainstay, either alcohol or Type 2 diabetes and obesity related liver disease. Those are the main two. And therefore [physical] activity levels is really quite important when we're looking at population health and reducing overall liver disease in the future." Hepatology pathways representative

Acceptability of the Active Hospitals activities to patients

Findings from interviews with HCPs also suggest patients are generally receptive to having conversations about physical activity, stressing the importance of probing to understand what types of physical activity patients are doing and thinking creatively about how to get patients to increase their levels of physical activity. In particular, understanding the patients' household dynamics and lifestyle is perceived as key to really engage patients and get them to open up about their physical activity

behaviours. Similarly, finding opportune moments to have conversations with patients is key to how acceptable patients find the topic or not.

"I will try to ask about physical activity in every patient consultation, just on the basics. When you're not at school, what do you do? You're starting with that. And what kind of activity do you do? And I make a joke about how I don't use the e word because everyone hates the idea of exercise. But how do you get to school? What do you do in the evenings? Do you play out. What other things do you do?... it's very rare that you have a physically inactive child in a house full of athletes. Usually, it's everybody, nobody in this family does anything at all, ever. And it's again, it's that whole conversation about, and there's always the explanation, oh, well, it's dark, or we don't like, it's not very nice where we live, and all this kind of stuff. It's trying to find out; what sort of things do you like doing? And how, and trying to find things that they might enjoy, things that they wouldn't necessarily think about as being exercise and activity, but just getting those conversations going."
Paediatric Endocrinology representative

"I think as liver nurses we are dripping taps, so we're constantly talking to patients about, say, alcohol reduction, eating a healthier diet and being more active. I think that's all we can do isn't it? For those patients that are quite difficult to reach, it is about being that dripping tap, but waiting for the opportunity. Because they will tell us something and you can just get in there with, well why don't you consider, or have you thought about, what about, all those sort of things. It's waiting for the opening I think. And I've had one chappy that that worked quite well with."
Hepatology representative

However, parents were often perceived as being less acceptable to conversations about their child's physical activity levels.

"I think the parents are often the biggest barriers. Children, naturally, don't stop moving. And if you have an overweight child, the only reason certainly primary school age children are overweight is because they eat too much… It's about not making parents feel that they are being blamed, but ultimately they are responsible for their child's activity levels and for their child's diet and everything else. So, it's how you navigate those conversations in a respectful way, but equally emphasising it. And I find the biggest barrier is always young people who are really keen to do things or want to do things, but the biggest barrier is the parents [stop them]."
Paediatric Endocrinology representative

7 Reflections on implementation

This chapter details the lessons learned from the implementation of the Active Hospitals programme from across the four pilot sites. It explores the enablers and barriers experienced by sites in how they met the aims and objectives of the programme, drawing out the key elements on effectively embedding promotion of physical activity within secondary care and the key success factors. It draws upon the qualitative interviews conducted with staff working at the four pilot sites.

The relevant questions that the evaluation seeks to answer around implementation are:

- What needs to be in place to effectively embed the promotion of physical activity within secondary care environments for secondary prevention and/or treatment? (including staff, funding, facilities, time, expertise, etc.)
- What are the barriers (requirements/ principles/ protocols) and facilitators associated with each of the different models?
- What are the success factors (requirements/ principles/ protocols) associated with each of the different models?

7.1 Implementation enablers and barriers

Interviewees were asked about the enablers and barriers to the implementation of their Active Hospitals activities. These are detailed below, with both enablers and barriers presented under each sub-heading.

Clinical leadership and senior buy-in

Active Hospitals leads emphasised the importance of building relationships with clinical leaders to gain senior buy-in to support implementation activities, with some citing the Active Hospitals toolkit on Moving Medicine as a useful source of advice to follow in approaching this. Lead clinicians from across a range of specialties were reported to support pilot leads in developing and implementing a clear strategy and approach to the Active Hospitals activities. In particular, where interest and enthusiasm about the Active Hospitals activities was shown by leadership and senior management, it was found to quickly garner support for the pilot activities across staff working in participating pathways. The impact of this has meant that HCPs working within pathways were more likely to engage with the pilots, support them, be open to change and adopt the new ways of working (e.g. having conversations about physical activity, recording physical activity data).

"The lead clinicians have created a vision and excited people about it, and then the ward staff have then gone, 'great, how do we access this? How can we learn more about it? What do we do?'. Which I think is a better way of doing it than if we had gone round flyering saying, 'come to our training session'. So, we went where the audience was, rather than inviting people to come to a specific session, which has been helpful."
Active Hospitals lead 1

Some leads also mentioned benefitting from being able to draw on specific clinical expertise to better understand how to engage staff and help co-produce pilot activities and support tools. For example, the lead at Nottingham engaged senior staff within nursing teams to understand how the proposed pilot activities would be received and embedded within the pathway. Engaging the nurses at this early stage meant they were able to provide valuable feedback, based on their knowledge of delivering care within the pathway, which helped shape the design of the pilot activities (e.g. how to efficiently collect physical activity data on active wards).

"I think factors for enablement, a big one is having nursing knowledge and buy in. I know like on Moving Medicine there's a lot of talk about having a lead clinician who's brought in, and I think that's really important I had that. But without that nursing buy in, you're not going to move anything. Divisional nurses, matrons, ward sisters or ward managers, everybody, you know, HCA education leads everybody, you need the nursing side, you need your divisional reps. Because they're the people who when I've said, 'oh we're doing this', they're the ones who have been like 'oh but', because they're the ones who have got to do the actual work."
Active Hospitals lead 2

Input from senior management was also mentioned as an important factor in supporting leads with the project management activities, including timetabling, problem solving and general support with driving the pilot forward. For example, Nottingham has a steering group made up of senior managers and clinicians who have guided the pilot and supported the project manager throughout the project. This includes support with a range of tasks, engaging department teams across the trust, reviewing Active Hospitals processes and acting as a 'sound board' for the lead. Northumbria have also drawn on support from their steering group, made up of the clinical leads, education and training leads, and nursing midwifery AHP lead from within the trust.

"We have senior people in terms of heads of department. They're on our steering group and Rise partnership... But yeah, it's endorsed at exec board level. And I think what it is, I don't know if morphing's the right thing, but what it's leading to, from Active Hospitals it's led to the Healthy Weight Declaration, of which Physical Activity will be a part. But the, that's, the strategic direction is that as a trust we will be, I think it's the first time the NHS Healthy Weight Declaration, a secondary care trust's signed up to, and we're doing it." Active Hospitals lead 3

"I think one thing that's helped that has been that senior support. Even for myself, having [senior manager] being able to support the asks to IT with the background of the pilot and the importance of it and the time frames that we need things doing in."
Active Hospitals lead 4

The absence of input from pathway and department leadership was found to be a significant barrier to implementation and maintaining Active Hospitals activities at one site. For example, at North Tees and Hartlepool, despite launching the pilot activities within the paediatric pathway, a contribution of factors impacting staffing pressures, including sickness of the pathway lead, meant that staff stopped delivering the pilot activities and recording conversations about physical activity. Staffing levels have since improved and, with increased support from senior members of staff, the team are looking to relaunch the pathway.

Familiarity with the topic of physical activity

The integration of physical activity promotion into clinical pathways was easier where there was a pre-existing focus on physical activity. For example, across all pilot sites, HCPs with a background relating to physical activity (e.g. physiotherapists, SEM consultants) were heavily involved in pilot activities. Staff with a background in physical activity described being very familiar with key messages that physical activity is important for good health but also had first-hand experience of having conversations about physical activity. Staff from other specialties admitted to having lower levels of understanding about discussing physical activity with patients.

Generally, this meant that pathway teams consisting of, for example physiotherapists, were more amenable to adopting routine conversations about physical activity into their consultations with patients or delivering direct interventions with patients encouraging them to do exercises. In the case of the lead

at North Tees and Hartlepool, having a background relating to physical activity was thought to support them in promoting the importance of physical activity to staff through conversation and training activities, including providing innovative tips on how to approach conversations and the wider population context within which the pilot is taking place (e.g. relatively lower levels of physical activity in England's North East population compared to the national average).

Despite the familiarity with physical activity, the influence of the Active Hospitals activities was perceived to build on and enhance the knowledge and skills of these HCPs in relation to physical activity.

"I think there was some [focus on physical activity before], but there wasn't as much as there is now. We were very much a physiotherapy treat with exercise kind of team prior to the programme, where I think now we're very diverse."
MSK pathway representative

IT infrastructure to support pilot activities

Findings from the interviews highlighted adaptations that supported the implementation of pilot activities and facilitated behaviour change amongst HCPs. For example, North Tees and Hartlepool worked closely with their IT and business intelligence teams to develop underlying infrastructure to support HCP activities across the pathways. This included adapting the clinical note taking software (i.e. SystmOne) for the MSK pathway to include a section to record patient physical activity levels and support needs. The software has been adapted to also include prompts around signposting and referral activity, linking HCPs to a form so that they can refer patients into the pilot's MiM sessions. HCPs working within the MSK pathway reported that the adaptation provided a useful reminder to discuss the topic of physical activity when assessing patients.

"So, I think how it all started was it was first told to us in meetings that it was coming and then after that, the questionnaire was placed into our template, and from there it became part of our assessment. So, with each patient that we would see that would become the norm now, because it's part of our assessment. So, that would be why we would start to do the, well, not everybody had to do it, but it was, it became now part of our template."
MSK pathway representative

The lead has also engaged the business intelligence team to develop a dashboard that pulls together activity data from the clinical note taking software. Drawing on an existing relationship with the team, as members of the business team used to work within the MSK team, the dashboard has enabled the lead to efficiently monitor Active Hospitals activities (e.g. number of patients spoken to about physical activity), identify problems and report performance both internally and externally (e.g. supporting this evaluation).

However, some sites have found it more challenging to successfully integrate clinical note taking into their systems. For example, Sheffield Children's electronic records system has not been able to integrate the note taking facility in a way that works for all HCPs that use it. This has meant that recorded notes about physical activity can sometimes be missed. There were also delays in getting the electronic referral forms embedded within the system as a result of competing priorities for the trust's IT division.

"So on our electronic records system, at the moment, his notes fall into a tab that actually comes underneath physiotherapy and occupational therapy. But it doesn't make it, when you open up a patient's record, it doesn't make it obvious. We almost need an exercise therapist tab so then you can immediately spot it and then go, ooh, OK, I'll check in there and see what you're up to, because I can see it straight out rather than when I go in and there's just a whole pile of headings that say physiotherapy, and I'm like, I don't need to check those because I probably wrote them, and actually, it turns out that I probably didn't. So I think, yes, making it clearer that that's an entity in itself and making it a bit more obvious would be helpful."
Asthma pathway representative

In Nottingham, there is considerable variance across the different pathways in terms of clinical note taking. For example, within the paediatric endocrinology pathway, they had an existing digital data capture system (i.e. Diamond) in place to record patient conversations about physical activity. Staff needed encouragement to make greater use of this function but no significant changes to the system were necessary. In contrast, the trust is updating its clinical note taking software for the gestational diabetes pathway which will not be available until November 2022. Therefore, they have not been able to make any changes to the current system, however, conversations are ongoing about potential adaptations to the new system to allow them to capture data about physical activity.

"At the moment, we can't do very much about the digital systems because they're getting a whole new thing coming in in November. There's no point trying to do anything until that's in place. But we have raised the profile. The physio I'm working with has already started talking about physical activity and how to get modules and things like that on that digital solution that they're bringing in."
Active Hospitals lead 2

Capacity within teams to engage with Active Hospitals activities

There were capacity issues within some teams which prevented them from fully engaging in the pilot. For example, delivering MHPP PACC training, particularly to staff working on inpatient wards, was highlighted as a challenge. Some interviewees mentioned the need for a minimum number of trainees to be available in order to book a PACC to deliver training. Inpatient pathways that require a minimum number of staff to be working on the wards found it difficult to release staff for training. These challenges on staff time were compounded by the pandemic when there were high numbers of staff off sick. This has meant that for some sites, such as Nottingham and North Tees and Hartlepool, PACC training for nursing teams in particular, has been delayed considerably. North Tees and Hartlepool have looked at other alternatives, such as MHPP elearning modules, to work around these challenges.

"With the acute, we had barriers in relation to the training because a) staffing levels and, b) just trying to get enough people onto a training session at one time was quite hard. The wards would only be able to release two or maybe three maximum members of staff at a time to attend a training session, and you need a minimum number of staff onto those sessions. We weren't able to hit that, so we've looked at other options instead, and what we've done instead is shared the elearning for health modules."
Active Hospitals lead 4

In Nottingham, despite clinical teams being supportive of the pilot in principle, capacity issues meant that the pilot activities slipped down the list of priorities. This led to delays in rolling out some of the pilot activities and the lead having to chase people up, whilst waiting long periods of time for adequate responses.

“So I think, everyone's really receptive in theory, so everybody’s really excited about it. Everybody’s like, really brought in, everybody thinks their patients should be moving more. Everybody thinks it’s going to be good for their health, everybody thinks it's something that everybody should talk about more. But then the challenge is when you start talking about how to do that and the nitty gritty of that, people just get overloaded, which is completely understandable. And then you get this like they’re bought in today, and then tomorrow they're too busy, and then they're really excited on Wednesday but then Friday they haven't got time. So you get this patchy engagement, so I'm just trying to drip, drip, drip, drip, drip.”
Active Hospitals lead 2

There were also concerns about the potential fragility of the exercise and physical activity therapist’s capacity at Sheffield Children’s. If they were not able to work or left the trust, they would take with them the capacity to handle referrals as well as local knowledge and networks that they have developed whilst being in the role – with no readily available replacement.

“[The exercise and physical activity therapist] is a single point of failure in our whole project. If he got offered another job and left tomorrow, we not only lose his capacity to be able to take those referrals, we lose his knowledge around the networks and referrals and all the good things I told you about, like the groups that he’s in, all that sort of stuff. That goes. So, that is, if you were to write a risk register that is probably quite high on there.”
Active Hospitals lead 1

This demonstrates the risk associated with a referral pathway leading to a single member of staff, and emphasises the importance of building resilience within teams to ensure that activities are robust enough to overcome staff absence or attrition.

Impact of the pandemic

The Covid-19 pandemic had a considerable impact on a range of pilot activities, including sites having to alter their priorities, and lacking adequate numbers of staff to release staff to undertake PACC training.

"I think the thing we struggle with is, due to staffing, sickness, all of those things which are problematic across the NHS at the moment, we have nurses who are on their knees a lot of the time and we’re often short staffed on the ward and their ability to take that little bit of extra time to do some of those things is harder. Just because they're run off their feet quite a lot of the time and because this has happened during Covid, with a lot of sickness and the difficulties and things, some of that has been challenging and I think that is something that is difficult on the ward. Asking our nurses to do more of anything is difficult when they're already stretched for various reasons."
Oncology pathway representative

Findings from the interviews highlighted some key challenges associated with the pandemic, such as:

- Diverting trust attention away from the pilot. For example, integrating new referral forms into Sheffield Children’s electronic record system was de-prioritised meaning that the process was delayed for some time. Similarly, communications to staff that were not ‘mission critical’ were de-prioritised, meaning that pilot sites were not able to promote the pilots as much as they would have liked.

- Redeploying and repurposing: Inpatient pathways were particularly affected by the pandemic as wards were re-purposed as ‘Covid wards’ and staff were redeployed or off sick.

"Through the summer there was a lot of staff absence still from Covid, which we thought, we're out of the worst of it, and we weren't. And so, the staff had to be redeployed from the Active Ward and then they physically moved from Alnwick down to a bit, a further bit in the south of the patch of Northumberland. So, they had a lot of upheaval and so it became increasingly difficult, and then they became a Covid ward, and this, so you thought Covid had stopped, but by, in North Tyneside, the, so this would have started in April, by the September they were a Covid ward again. So, they'd come out of being a Covid ward April time and they were back in it."
Active Hospitals lead 3

- Reverting to online forms of training and sometimes tagging PACC training onto other training sessions (perceived to be less effective) or delaying training sessions altogether.

- Losing informal and in-person communications that enable people to maintain consistent and regular interactions, thought to assist in building and maintaining relationships. In contrast, a switch to more virtual ways of working meant that it was possible to convene meetings with busy clinicians working at different sites through Microsoft Teams. This would have been more challenging to do in a face-to-face format.

- Revising pilot activities. For example, North Tees and Hartlepool had planned to introduce an ''active waiting area' for their paediatric pathway, as well as floor markings to set a target for how far a patient could walk on inpatient wards. The pandemic restrictions meant that an active waiting area posed a risk to transmission, whilst the floor markings were deemed to potentially confuse patients and staff around social distancing rules.

7.2 Key success factors

The findings from the interviews with leads and HCPs working within the pathways highlight a range of elements and success factors that are key to implementing the aims and objectives of the Active Hospitals programme. These are summarised as follows:

- Ensure **early buy-in from clinical leads,** as well as core teams responsible for enacting implementation and delivery activities.

- Select the quick wins to setup and establish activities, drawing on **those professions most aligned with promoting physical activity within secondary care.**

- **Utilise infrastructure within pathways** to underpin, remind and support HCPs to routinely carry out activities and encourage behaviour change.

- Be **flexible in how to approach change** to reflect the different capacity needs and restraints of different pathways.

8 The Community of Practice and supporting resources

This chapter explores trusts' experiences of being part of the Community of Practice and of using the Active Hospitals Collaborative Forum. The findings presented here are drawn from interviews with the four pilot site leads, and four interviews with staff at trusts – other than the pilot sites – who are members of the Community of Practice.

The evaluation questions of relevance to this chapter are as follows:

- What learning and improvement takes place through an action learning approach, using a Community of Practice?
- To what extent does the use of the 'toolkit' support development of an 'Active Hospital'?

8.1 Community of Practice

The NHS TU launched a Community of Practice on 8 September 2021 aiming to bring together organisations interested in increasing physical activity levels in clinical pathways. The intention was for at least 20 secondary care trusts (including the four pilot sites) to participate in the community and join quarterly meetings. The Community of Practice consisted of 24 trusts from across England including the four pilot sites. Non-pilot sites involved in the Community of Practice were:

- Barts Health NHS Trust
- East Suffolk and North Essex NHS Foundation Trust
- Great Ormond Street Hospital
- Hull University Teaching Hospitals NHS Trust
- Imperial College Healthcare NHS Trust
- Manchester University NHS Foundation Trust
- Mid and South Essex NHS Foundation Trust
- Nottinghamshire Healthcare NHS Foundation Trust
- Oxford University Hospitals NHS Foundation Trust (Phase 1)
- Royal Free London NHS Foundation Trust
- South Tyneside and Sunderland NHS Foundation Trust
- South Warwickshire NHS Foundation Trust
- Stepping Hill - Stockport NHS Foundation Trust
- The Newcastle Hospitals NHS Foundation Trust

- Torbay and South Devon NHS Foundation Trust
- University College London Hospitals NHS Foundation Trust
- University Hospitals Dorset NHS Foundation Trust
- University Hospital Southampton NHS Foundation Trust
- University Hospitals Birmingham NHS Foundation Trust
- University Hospitals of Leicester NHS Trust

Some interviewees explained that their trust had become involved in the Community of Practice after being unsuccessful in its application to be an Active Hospital pilot site. These interviewees described that they had anticipated the Community of Practice would support them to commence the work they had outlined within their Active Hospital applications, but without the additional funding associated with being a pilot site.

"What OHID did was they completely responded with the fact that a lot of trusts were like minded in terms of wanting to do the project that initially we were going to get funding for. And so it was delightful to hear that they actually started this Community in Practice, which enabled us to still have the ethos in mind of what we wanted to do in the trust, but obviously what we wouldn't have is the funding to do it."
Community of Practice member

Interviewees described that by joining the Community of Practice trusts hoped they would have the opportunity to network with other trusts, share experiences, and discover potential solutions to any barriers they were experiencing. Interviewees discussed three components of the Community of Practice: the quarterly meetings, the newsletters and the online platform.

Quarterly meetings

Interviewees had generally attended multiple quarterly meetings. Overall, they felt that the meetings were an important way to encourage collaboration and build relationships between trusts. Interviewees also praised the structure of the meetings; feeling it was valuable to hear in detail from different trusts at each meeting. Trusts reported finding it motivating to hear about barriers faced by other trusts, and how they had overcome them.

"I think it's from a collaboration point of view, it's good to get everybody together if nothing else, to see what everybody's doing. I think that's where the quarterly meetings come in and I love the fact that there are people presenting at those."
Community of Practice member

Hearing from individual trusts was – perhaps unexpectedly – seen to be particularly helpful where trusts had not made the progress that they had anticipated. Trusts found it reassuring and motivating to hear about the barriers that other trusts were facing and to discuss ways in which to overcome these barriers. In many cases trusts felt that these learnings were transferable to their own work, even where trusts were very different in their focus.

“I personally felt, what am I going to say, we're not really progressing? But that in itself is what people want to hear. Where are you up to? Yeah, we're the same. It is that, it's great to have that collaboration with people and I think the more that you do meet, the more you recognise people and it's a camaraderie, isn't it? And the fact that you're all trying to achieve the same sort of thing.”
Community of Practice member

“If nothing else, it's good to hear where the struggles are and how people are managing to get over them, even if it's not all, it's never going to be all positive is it? So for no other reason, it's good to hear some positives, but it's also good to actually get, some negatives and feel how people are dealing with those.”
Community of Practice member

Some interviewees commented that they had been unable to attend all of the quarterly meetings that they would have liked to, due to the pressure of their other work commitments. This issue was compounded by the length of the quarterly meetings, which extended to three hours. As a result, interviewees noted that on occasions when they had competing priorities on the day of the quarterly meeting, it was likely they would have to miss the meeting. While some interviewees discussed the possibility of having a shorter meeting, overall there was a feeling that – given the meeting is only once a quarter – it was necessary and appropriate for it to be several hours long.

“I've been to a couple of them. It's not always convenient unfortunately.”
Community of Practice member

The newsletters

To support the promotion of Active Hospitals, the pilot sites, activities and ongoing work, the NHS TU disseminate a quarterly newsletter. The newsletter is shared with pilot sites, Community of Practice members, OHID, Sport England and a range of wider stakeholders. The recipients are encouraged to share the newsletter more widely to their contacts and associates to spread the Active Hospitals message, promote awareness and support engagement.

Given the challenges interviewees experienced attending all of the quarterly meetings, it was viewed as particularly important that there was a written way to record and disseminate learnings across members of the Community of Practice. In general, interviewees felt that the regular newsletters achieved this aim; keeping them updated on others’ progress while motivating them to continue with their work. Interviewees mentioned that they usually read the newsletters when they were circulated, and in some cases re-visited them when they were facing barriers.

“It’s nice to read what other people are doing really and how things are progressing. That was actually quite a useful feature of the whole thing. And it, the issue with going to the meetings is that they're set dates and it's difficult to attend, the newsletter just makes it easy to pick up on things.”
Community of Practice member

“I do read those and again, it's always out of an interest in isn't it, and I suppose a re-motivation and enthusiasm. That’s the reason why I do that.”
Community of Practice member

The newsletters were also used as a source of contacts. Trusts mentioned using the newsletters to identify trusts who had experienced similar issues to those they were facing, who they had subsequently contacted for support.

“I look through the newsletters, and I find the newsletters useful for networking. That's probably been the single most useful thing from our point of view was getting in touch with various people.”
Community of Practice member

The online platform

The online platform is hosted on the FutureNHS website. It includes a forum to support collaboration and host a range of content from the programme, such as a description of the programme and the pilot sites, the Active Hospitals newsletters and useful documents on the evidence, lessons learned and materials from masterclasses with OUH. It also includes blank templates and documents used by sites to support implementation of activities; these will continue to be added to for all CoP members to use. Members are added to the platform and encouraged to utilise resources, communicate through the forum and share their own resources and learnings.

Interviewees felt that the online platform had some potential to be a useful tool for trusts to seek advice from others when experiencing barriers. Given that the meetings are held quarterly, the online platform would provide a route to connect with other trusts – as and when needed - between these meetings.

However, while all interviewees said that they had accessed the platform at some point, they generally admitted that they had not accessed it regularly. When they had accessed it, they had found that there was not much activity, which discouraged them from accessing it again.

“But I have to say, I don't particularly go onto the platform of the Community of Practice which is, I suppose the idea of that was it would throw things online and do a lot more and that sort of thing that, I have to say I haven't really picked up on that”
Community of Practice member

“I'd say, when I tried going on the forums and stuff, I didn’t see much activity. So it might be nice to have a bit more ongoing chat about what people are doing. But I don't know how you encourage that really.”
Community of Practice member

Current pilot sites also commented on the lack of activity on the online platform, and noted that, when they had uploaded content themselves, they were unsure of whether it had been accessed by, or of use to, anyone else.

“I uploaded a lot of our stuff onto there. I haven't necessarily seen other people put a lot of things on. I think some have, but then I don't know if what I've put in has been accessed or has been of any use. I suppose that would have been, it would be good to know that as well.”
Active Hospitals lead 4

Others suggested that there should be a more formal suite of resources available on the online platform, to act as a starter pack for trusts that were just starting to implement interventions. For example, one pilot site lead suggested that examples of physical activity calculators should be available on the platform.

“I think Futures isn't working. I hardly find time to go on there, and I suspect that other people find even less time to go on there than I do. And like when I first went on there, I suppose I was hoping for things like the physical activity calculator that actually makes sense. And there was nothing. There's no resources on there, there's nothing to get you started, there no like starter pack which would be really useful.”
Active Hospitals lead 1

To some extent, it appeared that the online platform was a victim of the success of other aspects of the Community of Practice that developed organically. For example, some trusts said that they had found it unnecessary to seek advice via the online platform because they were already having regular conversations – outside of the quarterly meetings – with other trusts who they had connected with via the Community of Practice.

"I think because I've felt that the local trust near us, we'd got that without needing to go anywhere else. I felt that we were pretty much at the same place, and we could bounce ideas off of each other really, rather than gain any extra support from anywhere else."
Community of Practice member

"I think the single most useful thing really is physically chatting to someone that's gone through it before."
Community of Practice member

The impact of the Community of Practice

The Community of Practice set out to achieve an action learning approach across trusts and, among those interviewed, it appears that this aim has, to some extent, been achieved.

- **There was evidence of trusts forging working relationships** as a result of the Community of Practice. In some cases these transcended the Community of Practice itself, with pairs of trusts who have met via the Community of Practice meeting regularly to discuss their progress and share solutions. While this is beneficial to those trusts involved, an unanticipated consequence of these strong relationships is that the online platform was underutilised; trusts would rather go directly to their contacts for support, than seek this support online.

  "[The Community of Practice is] just really accessible. It's well structured. It's well set up. And, if you want to get in contact with someone, if, that, if contacts aren't readily there, then they're easy to get hold of by the guys who run the platform. So, I think having that availability to easily link up with colleagues is, has been really useful."
  Community of Practice member

- **There was evidence that the Community of Practice helped to keep trusts motivated** to continue their work on physical activity during very challenging circumstances. Multiple trusts mentioned that hearing other trusts were facing challenges – even those that had received the Active Hospitals funding – helped them to persevere through their own challenges.

  "It's always good to see what other people are doing and particularly the hospitals who were the formally funded hospitals, just to see what they are achieving. And if anything, I suppose to make us all feel better if they're still experiencing the same problems as us. And I think it does keep you motivated because for that time that you're not able to do anything, you want to throw the towel in, but then we read something that tells you everybody else is in the same place. It gives you that motivation to just keep nudging away at it and maybe just look at a different way of maybe doing things."
  Community of Practice member

  "It's been really useful for all of us really. We've enjoyed being part of it, it's been great to hear what other people are doing. And I really do think that, so I think people in hospitals are, they're naturally competitive. So if you hear that other places are doing something that you think is better than yours, then it will drive you to do, it will drive other places to do stuff. I think that helps."
  Community of Practice member

- Finally, there was evidence that as well as providing motivation and support, trusts had also **provided each other with solutions and ideas**. For example, one interviewee mentioned that they had found the Community of Practice particularly useful when approaching the challenging issue of culture change; and that some of the learnings from other trusts had helped them to shape their own approach.

  "Yeah, it's been really helpful actually. If anything, it was beyond, I'm not sure I had the highest expectations going in, but it's been useful to speak to other people. And then actually, so we've been put in touch, so for instance with [trust] who must have heard about us through Active Hospitals, and they've got in touch. And we've learnt from each other about some things, we're still in touch actually about other things and some common pathways. That's been quite useful actually."
  Community of Practice member

  "I think it's, for me, it's a lot about sharing experiences. Listening and learning from others' experiences in terms of what's worked well, what have been the greatest challenges. And a lot of this is around culture change, and that's often quite difficult to influence. So, I think hearing how other people have approached all of that has been quite valuable. We have the same challenges wherever we are, so I think sharing that and having the support network from that is helpful."
  Community of Practice member

8.2 Active Hospitals toolkit and 'Library of Useful Resources'

An Active Hospitals toolkit was developed by OUH as part of the initial pilot, which is hosted on the Moving Medicine website.[23] The NHS TU was commissioned to further develop and test this toolkit with the intention of it being available for adoption by any secondary care provider within the NHS to help embed physical activity promotion and participation. The NHS TU reviewed the beta version of the online toolkit, presenting findings and suggestions in a paper for consideration by OHID.

A decision was made by OHID to host the resources developed in Phase Two of Active Hospitals on a workspace on the FutureNHS collaboration platform (i.e. the Active Hospitals Collaborative Forum). The NHS TU developed an implementation plan which saw the collation of a suite of resources by, among others, the NHS TU and the pilot sites. These resources were launched in September 2022 and can be found in the "Library of Useful Resources" and will continue to be added to as appropriate.

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Findings from the interviews with Community of Practice members suggest that these resources will be welcomed. Interviewees who had used the Active Hospitals Collaborative Forum had found it useful to supplement the support of the Community of Practice. They described that the resources had provided a useful structure to help plan their approach to embedding physical activity.

"I've used the [FutureNHS] resources quite a lot and found them really useful, actually. The resources on the website, I've certainly dipped in and out of, and certainly use some of those principles."
Community of Practice member

[23] https://movingmedicine.ac.uk/active-hospitals/

However, others emphasised the importance of any future resources being easy to navigate; with incremental steps starting small. They therefore thought it was more appropriate to use the resources once progress was underway, rather than on commencement of the work.

9 Sustainability and transferability

This chapter reflects on the sustainability of the Active Hospitals programme, considering it from three perspectives: programme oversight; continuation of activities at the trust-level; and the transferability of activities both to other pathways within the pilot sites, and more broadly to trusts outside of the pilot. It draws upon the qualitative interviews conducted with staff at the four pilot sites, a review of relevant programme documentation, and interviews with NHS TU representatives.

The final evaluation question to be considered in this chapter is: What needs to be in place to spread an effective model of an 'Active Hospital' to other trusts?

9.1 Sustainability of programme oversight

Funding via the MHPP programme will come to a close in late 2022, with funding for the Active Hospitals programme no longer available through this route. The contract with NHS TU as the leadership provider will conclude at the end of September 2022. The final Community of Practice meeting held by the NHS TU will happen in September 2022, with OHID committed to managing a further meeting in December 2022, and overseeing Nottingham's delivery of the Active Hospitals programme from October – December 2022 (reflecting the delayed start of their activities).

Discussions are ongoing presently between OHID, Sport England and other bodies to determine next steps for the Active Hospitals programme. The recommendation for the continuation, and growth, of Active Hospitals as put forward by the NHS TU is for:

- OHID to secure funding for a centralised post to deliver and manage the Active Hospitals programme on four priority areas: the Active Hospitals Collaborative Forum (ensuring it is updated and maintained over time); accreditation (developing and maintaining an accreditation scheme for trusts to become an 'Active Hospital'); branding (supporting the use and management of the Active Hospitals branding developed by Northumbria); and the Community of Practice (managing the Community of Practice and supporting trusts to become 'active' through it).

- Utilise the knowledge of the project leads from the four pilot sites, either in an advisory capacity or through recruited positions, to harness their learning and expertise so it is shared with trusts around the country.

At this stage in the programme, the pilot sites require little by way of central oversight. However, it was the view of those interviewed that a centralised body would be required to oversee the Community of Practice. Without a central body to organise the meetings, set agendas, and facilitate sharing between participants, the consensus was that the Community of Practice would dissipate.

9.2 Sustainability at the trust-level

All four pilot sites have the ambition of continuing their Active Hospitals activities. With the exception of Nottingham (where Active Hospitals initiatives are still being set up or are yet to embed fully), the trusts are presently drafting business cases to secure alternative funding in support of their activities. Sheffield Children's are looking to fund at least one exercise and physical activity therapist, Northumbria wish to permanently recruit an Active Ward Champion to embed the Active Ward model across the Trust, and North Tees and Hartlepool are looking to retain their project manager role.

Though securing further funding will aid the sustainability of the trusts' Active Hospitals initiatives, there are a number of facets of their approaches which will remain, even in the absence of additional funds:

- Across the four pilot sites, a large number of HCPs have been trained in the promotion of physical activity through programmes such as PACC, MECC, and internal briefings. It can be assumed that the benefits of such training will last beyond the end of the Active Hospitals programme, contributing towards more frequent, and better quality, conversations with patients about physical activity.

- It is likely that many of the training programmes will continue irrespective of further funding. For example, PACC training will continue to be offered to staff at the four pilot sites, and indeed can now be run by trust representatives who have recently become PACC trainers themselves. Ensuring new staff are offered training on physical activity promotion will help them engage with the Active Hospitals philosophy.

- Though less certain in its legacy, it is hoped that HCPs who have started promoting physical activity to patients more as a result of the Active Hospitals initiative will continue to make physical activity a part of their routine practice.

- Where trusts have amended their strategies to place a greater focus on physical activity, these changes will endure beyond the end of the pilot. For example, Northumbria have embedded their commitment to get staff more active into their trust strategy (through the staff wellbeing programme and portal that includes staff wellbeing champions, support from staff health coaches, the e-bike/ trike pilot for nurses, and wellbeing hubs).

- Linked to the above, some of the trusts have formally incorporated Active Hospitals responsibilities into permanent job roles. For example, in North Tees and Hartlepool, two new Quality Improvement Lead posts have been secured taking the total to four across the trust. This role will be central to supporting the spread of Active Hospital pathways into new areas..

- Where the trusts have made physical adaptations to wards and hospital spaces to promote physical activity, these changes will remain in place. For example, children will continue to be encouraged to move in the recently refurbished oncology ward at Sheffield Children's, and the 'I Can' boards will remain in place for inpatients at North Tees and Hartlepool.

- Where trusts have created or adapted patient-facing resources (such as those from the Moving Medicine website), these will remain available to provide patients with guidance on moving more. Similarly, the maps of local walking routes created as part of Nottingham's 'Sunshine Walks' will remain available for use.

- Amends made to electronic data management systems will remain in place. For example, the physical activity assessment questionnaire which has been integrated into SystmOne/TrakCare at North Tees and Hartlepool and SystmOne in Northumbria, and adaptation of clinical note taking software (e.g. Diamond) at Nottingham which asks HCPs to record information about physical activity levels and needs.

- The expectation is that links built between the four pilot sites and external organisations will endure beyond the end of the pilot. For example, Nottingham plan to continue working with the support service ABL (a better life) Health to support physical activity in the community setting, and North Tees and Hartlepool will continue to engage in design talks with the local authority regarding the

build of a new leisure centre in Hartlepool (c.2024) to jointly co-produce the space and co-locate services there.

- The Active Hospitals branding developed by Northumbria will remain in place on promotional materials (including signs and patient information leaflets). The hope is for this branding to be adopted by the other trusts in due course.

- Other specific aspects of trusts' activities will remain, such as the volunteers helping patients to be more physically active on wards at North Tees and Hartlepool will continue their efforts to do so. Likewise, North Tees and Hartlepool intend for their Movement is Medicine sessions to carry on and are presently training more physiotherapists to deliver the sessions (alongside local authority and patient representatives).

Findings from the qualitative interviews show that the following are perceived as being key to sustaining Active Hospitals activities beyond the end of the funding period:

- Senior engagement and support for the Active Hospitals activities: Ensuring senior buy-in to the Active Hospitals programme (either through senior representation in programme working groups, or through regular updates at Board level) is considered key to embedding physical activity promotion into broader trusts' strategies.

- The involvement of multi-disciplinary teams: Having professionals working across different teams invested in the Active Hospitals philosophy is considered helpful to embedding a shared agenda that is therefore more sustainable than if it was being pushed by one team or one group of professionals.

- Passionate individuals to spearhead activities: Those who are passionate about the promotion of physical activity and its benefits for patients are more likely to continue Active Hospitals initiatives beyond the funding period. Ideally these individuals would have time in their role specifically dedicated to supporting the work of Active Hospitals.

- Good data collection: Communicating the impact of Active Hospitals in a compelling manner has led some of the trusts to focus heavily on compiling good data and evidence in support of its continuation.

- The requirement for minimal funding: North Tees and Hartlepool took less funding than was available through the Active Hospitals programme on the philosophy that their activities were more likely to be sustained if they required less funding.

Seeking further funding

As aforementioned, all the trusts are primarily seeking further funds to keep personnel in post or recruit individuals to sustain their Active Hospitals approach. The possible sources of further funding, as articulated by the pilot sites, are as follows:

- Internal trust funding: This potential funding route was considered to be the least likely for longer-term funding arrangements, though short-term funding could be provided to permit continuity of activity.

- Charities: Where trusts have a charity aligned to them, this could present a potential avenue through which to secure further funding.

- ICSsICBs: Assuming the promotion of physical activity aligns with commissioning priorities, the trusts may seek to secure further funding through their local ICSICB. Being able to evidence the impact of activities (and the potential for reduced service demand/cost) will be an important part of securing funds through this route. Equally, it is recognised that elements of the Active Hospitals programme may need to be adapted to suit the requirements of local commissioners.

- Other funding sources have also been identified by some sites. For example, Nottingham have successfully applied for the Arts Council to fund the development of new 'Arts Trails' project with mapped walks around the trust campuses. Northumbria have secured funding from Health Education England North East to invest in Continuing Professional Development.

A further consideration for the trusts is whether they seek to secure funds to maintain Active Hospitals activities as they are at present, or to expand them; the latter is likely to be a more costly option.

9.3 The transferability of Active Hospitals activities

Transferability to other pathways within trusts

The original requirement for the pilot sites was for them to pilot Active Hospitals activities within two care pathways. All four pilot sites have piloted the programme in more than two pathways – up to six in the case of Nottingham. This has stemmed from trusts' desire to pilot activities in a range of settings, but also reflects an appetite from HCPs working in different pathways to be involved in the programme.

Findings from the interviews showed that a number of non-participating pathways at the pilot sites have expressed an interest in the Active Hospitals programme, often requesting elements of the initiative for their own patients.

"There's been a number of consultants who've said they'd love to refer into the service as well, so I think there is demand there."
Active Hospitals lead 1

Indeed, some of the trusts have already rolled out elements of the Active Hospitals programme to further pathways, or have plans to do so. For example, the community integrated assessment team at North Tees and Hartlepool have adopted parts of the Active Hospitals initiative such as the use of the physical assessment questionnaire, and the Movement is Medicine group is in the process of being expanded to accept referrals from other teams in the trust. Nottingham plan to build a local 'toolkit' for developing Active Hospitals pathways, allowing the approach to be rolled out across the trust.

As discussed in the trust-specific chapters of this report, the Active Hospitals activities being piloted have been broadly acceptable to both staff working at the trust and the patients they serve. Some staff members interviewed did however acknowledge that Active Hospitals activities may need to be nuanced and adapted to suit the specific requirements of different pathways and teams. For example, patients may need to be referred to Sheffield Children's exercise and physical activity therapist at different points in their patient journey depending on their condition, likewise each pathway will need to agree a referral threshold that suits the needs of their patients, and this is unlikely to be uniform.

"Everything with any clinical pathway has to be adapted, but the principles of the pathway are basically generic, so I think in terms of the applicability to other clinical pathways it's working with those pathways to understand where the bar should be set for the type and number of patients that they refer on to a physical activity service. There's no doubt it's transferable, I think it's just working with the clinicians to set up the referral pathway."
Active Hospitals lead 1

It is worth noting that transferring Active Hospitals initiatives to other pathways may require additional funds, particularly where there is no capacity within the existing system. For example, Sheffield Children's where no further pathways can refer patients on to the exercise and physical activity therapist until another therapist is in post.

Transferability to other trusts

There is no evaluation evidence which suggests the Active Hospitals activities being piloted by the four pilot sites are specific to those trusts only and cannot transcend trust boundaries. Indeed, there is evidence to the contrary, with trusts from the Community of Practice incorporating or adapting facets of the Active Hospitals approach into their own setting. For example, Torbay and South Devon NHS Foundation Trust have employed a fitness instructor to undertake a similar role to that of the exercise and physical activity therapist at Sheffield Children's.

"I think the Community of Practice shows the transferability actually, of the model, the hypothesis and the opportunities that an Active Hospital presents, it's just then locally applying that in either a like for like ward, or something that they feel is more appropriate."
NHS TU representative

In selecting the four pilot sites to participate in the Active Hospitals programme, careful consideration was given to the selection criteria to ensure the involvement of trusts that covered a breadth of size, structures and geographies. This therefore means the Active Hospitals activities have been piloted in a range of settings and thus this increases the likelihood that similar activities could be employed in other trusts around the country. It is however worth noting that the four pilot sites trusts have all had a historic focus on physical activity, with it featuring in trust strategies and population health approaches prior to the pilot. It could therefore be theorised that the Active Hospitals initiative could be less transferable to trusts that have not previously had a strategic focus on physical activity and the backing from senior leaders.

Requirements to aid transferability

Evidence collated through the evaluation suggests the following facets would assist in transferring the Active Hospitals model to other trusts around the country:

- Key enablers which have been referenced earlier in this chapter and elsewhere in this report. Namely: funding to secure dedicated roles in support of the Active Hospitals programme; senior buy-in from trust management and board-level to endorse the programme's strategy and mechanics; and passionate individuals who can drive the programme from the ground-up, garnering support from other colleagues and ensuring progress against project plans.

- Linked to the above, dedicated project managers on the ground have been a great asset to the pilot sites. Sheffield Children's took a different approach, whereby project management responsibility was shared collectively among a small group, though the other trusts were reliant on project managers to drive change and it is likely this would aid other trusts in the adoption of Active Hospitals initiatives.

- There needs to be centralised mechanisms through which trusts can share learning. The most obvious of these being the Community of Practice which will be an important mechanism through which trusts can learn from one another and be inspired by the activities being undertaken elsewhere. The Active Hospitals Collaborative Forum has the potential to aid the transferability of

Active Hospitals initiatives but only if it is well publicised and user friendly. Both mechanisms of sharing insight require a centralised body to oversee their development and maintenance.

- Greater involvement from OHID regional leads may assist in the transference of Active Hospitals activities. There is the potential for these individuals to facilitate the learning between trusts in a local region, and to assist trusts in securing funding, or identifying funding opportunities, in support of the Active Hospitals programme.
- Trusts' Active Hospitals initiatives are likely to be supported by local ICS and national strategies which prioritise the promotion of physical activity.

10 Conclusions

Key findings from the evaluation of the Active Hospitals programme are as follows:

- The Active Hospitals programme has positively impacted on HCPs awareness of the benefits of promoting physical activity and their confidence to do so. This is the clearest impact of the programme. To a lesser extent, though still observable through qualitative data, is an increase in the frequency of conversations with patients to promote physical activity and, in some cases, better quality conversations. Anecdotal evidence is available which suggests patients have benefitted from conversations about physical activity and some are more active as a result though the evaluation evidence is not conclusive in this regard.

- The Community of Practice has proved an effective means through which to connect trusts working on embedding the promotion of physical activity and has been a welcome addition to the programme.

- Good data collection is essential to demonstrating the worth of the Active Hospitals programme. Whilst the data collected by the pilot sites suggests reasonably high numbers of staff and patients have been engaged in the Active Hospitals programme, the numbers significantly under-estimate the reach of the programme due to challenges in data capture. Moving forward, Active Hospitals should consider if, and how, data could be collected to evidence patient outcomes as a result of the Active Hospitals activities more comprehensively.

- Proving to be important implementation enablers and contributors to the sustainability of Active Hospitals activities are: senior engagement and support; the involvement of multi-disciplinary teams; early buy-in from clinical leads; passionate individuals to spearhead activities (particularly those with a pre-existing interest in physical activity); a flexible approach to change; and infrastructure changes to embed activities.

- There is good momentum in each of the pilot sites to continue with Active Hospitals activities. All sites are seeking further funding to aid their continuation or growth, though aspects of the programme have already become embedded as business as usual and will continue irrespective of whether further funds are secured or not.

- The four trusts have piloted a diverse range of activities to embed the promotion of physical activity. There are good indications to suggest that Active Hospitals activities are transferable to non-participating pathways in the pilot sites, but also more broadly to trusts not involved in the pilot. The four pilot sites have however had a historic focus on physical activity meaning other trusts without such a focus may not have the same endorsement of the programme and its aims.

Appendix

Evaluation questions

Implementation

- How did/does the project meet its aim and objectives?
- What needs to be in place to effectively embed the promotion of PA within secondary care environments for secondary prevention and/or treatment? (including staff, funding, facilities, time, expertise, etc.)
- What are the barriers (requirements/ principles/ protocols) and facilitators associated with each of the different models?
- What are the success factors (requirements/ principles/ protocols) associated with each of the different models?

HCP and patient outcomes

- What is the acceptability of the different models, to patients and HCPs?
- What is the HCP and patient experience of being involved in the different models?
- What is the impact of each model on HCP behaviour?
- What is the impact of each model on patient behaviour?

Spread and sustainability

- What learning and improvement takes place through an action learning approach, using a Community of Practice?
- To what extent does the use of the ‘toolkit’ support development of an ‘Active Hospital’? (subject to inclusion of a toolkit) What are the other key factors for sustainability?
- What needs to be in place to spread an effective model of an ‘Active Hospital’ to other Trusts?

Roles of those interviewed from the pilot sites

Sheffield

Active Hospitals role	Job role	Role in Active Hospitals programme
Central team – leads	Associate Director of Transformation (n=1)	Lead transformation programmes at the trust including Active Hospitals
	Professor of Child Health and Consultant in Paediatric Endocrinology (n=1)	Provide senior backing for the Active Hospitals programme
Delivery team – exercise and physical activity therapist	Exercise and physical activity therapist (n=1)	HCPs from the participating pathways refer children to the exercise and physical activity therapist who then provides 1:1 support for patients to become more physically active
Delivery team – clinical leads	Consultant (n=2)	Active Hospitals lead for the participating pathways whose role it is to co-produce the activities, promote the programme, and assist in upskilling team members
Delivery team – pathway representatives	Consultant (n=2) Advanced physiotherapist (n=2)	Staff working in the participating pathways whose role it is to promote physical activity to patients and refer to the exercise and physical activity therapists where required

Northumbria

Active Hospitals role	Job role	Role in Active Hospitals programme
Active Hospitals Leads	Healthy Hearts Service Manager (n=1) Strategic Lead for AHPs and Physio (n=1)	Active Hospitals Delivery Leads responsible for managing the implementation and delivery of Active Hospital activities
Delivery team – pathway representatives	Midwife (n=1) Maternity assistant (n=1) Physiotherapist (n=1) Advance Health Practitioner Lead (n=1)	Staff working in the participating pathways whose role it is to promote physical activity to patients and refer patients for further support with increasing physical activity.

North Tees and Hartlepool

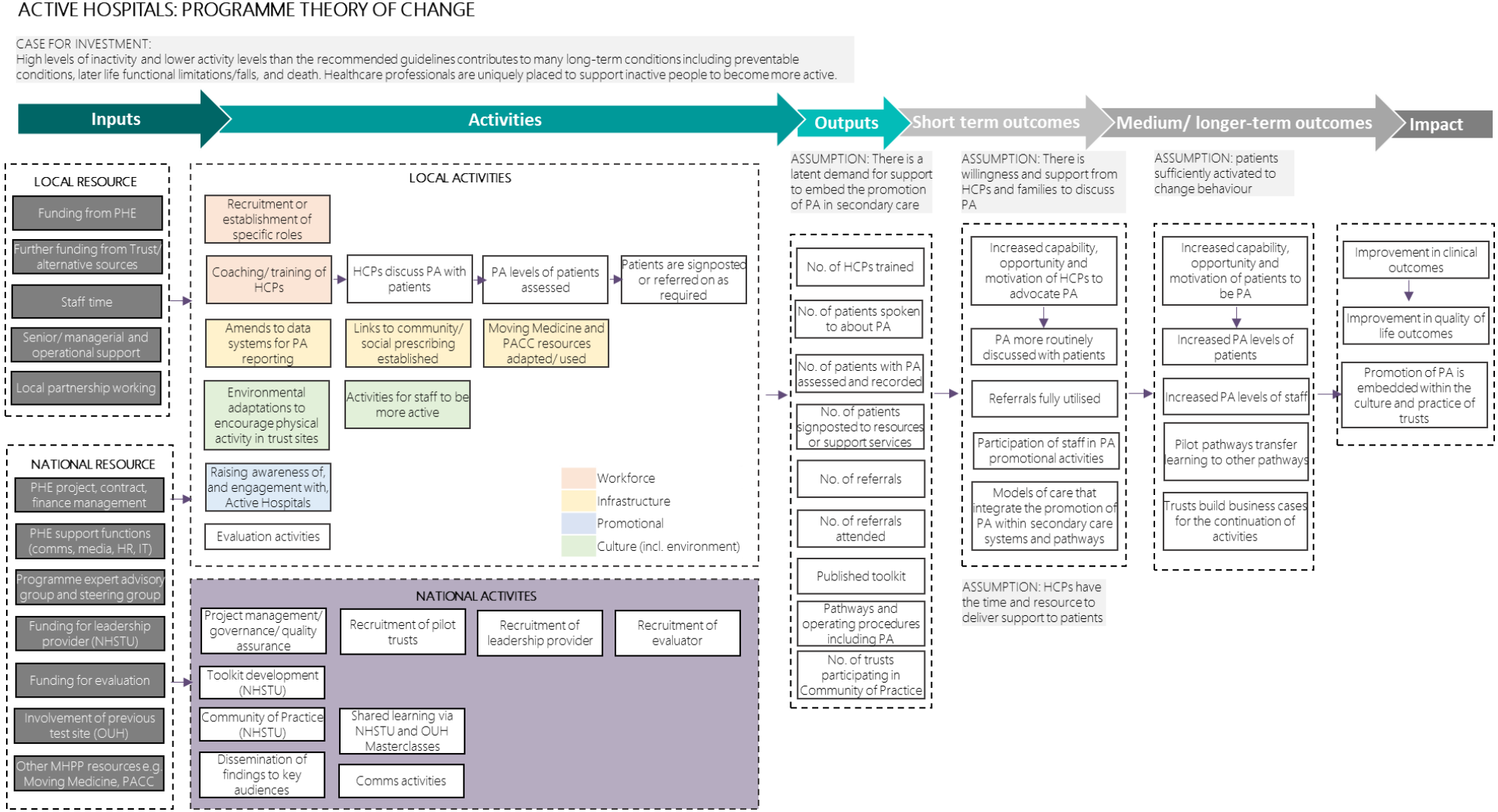
Active Hospitals role	Job role	Role in Active Hospitals programme
Active Hospitals Lead	Quality, Safety and Innovation Lead (and previously Outpatients Therapies Team Lead), with a background in Physiotherapy and regional PACC for the North East (n=1)	Active Hospitals Clinical Delivery Manager, responsible for managing the implementation and delivery of Active Hospital activities, including the delivery of PACC training.
Delivery team – pathway representatives	Physiotherapists (n=5) Volunteer (n=1)	Staff working in the participating pathways whose role it is to promote physical activity to patients and refer patients for further support with increasing physical activity (e.g. MiM sessions) where required
Personnel delivering referral services	Sport and Active Lives Officer (n=1) Physiotherapist (n=1)	Staff working to deliver MiM sessions to patients referred from the pathways to learn about support and activities to increase physical activity

Nottingham

Active Hospitals role	Job role	Role in Active Hospitals programme
Active Hospitals Lead	Occupational Therapist (n=1)	Active Hospitals Clinical Delivery Manager, responsible for managing the implementation and delivery of Active Hospital activities.

Member of the Active Hospitals Steering Group	Consultant (n=1)	The Steering Group was involved in developing the bid and plans for the programme, recruiting a project lead and providing expert oversight to the programme.
Delivery team – pathway representatives	Consultant (n=3) Dietitian (n=1) Nurse Specialist (=1)	Staff working in the participating pathways whose role it is to promote physical activity to patients and refer patients for further support with increasing physical activity
Personnel delivering referral services	Deputy Head of Service (n=1)	Staff working to deliver support in the community to patients referred from the pathways to learn about support and activities to increase physical activity

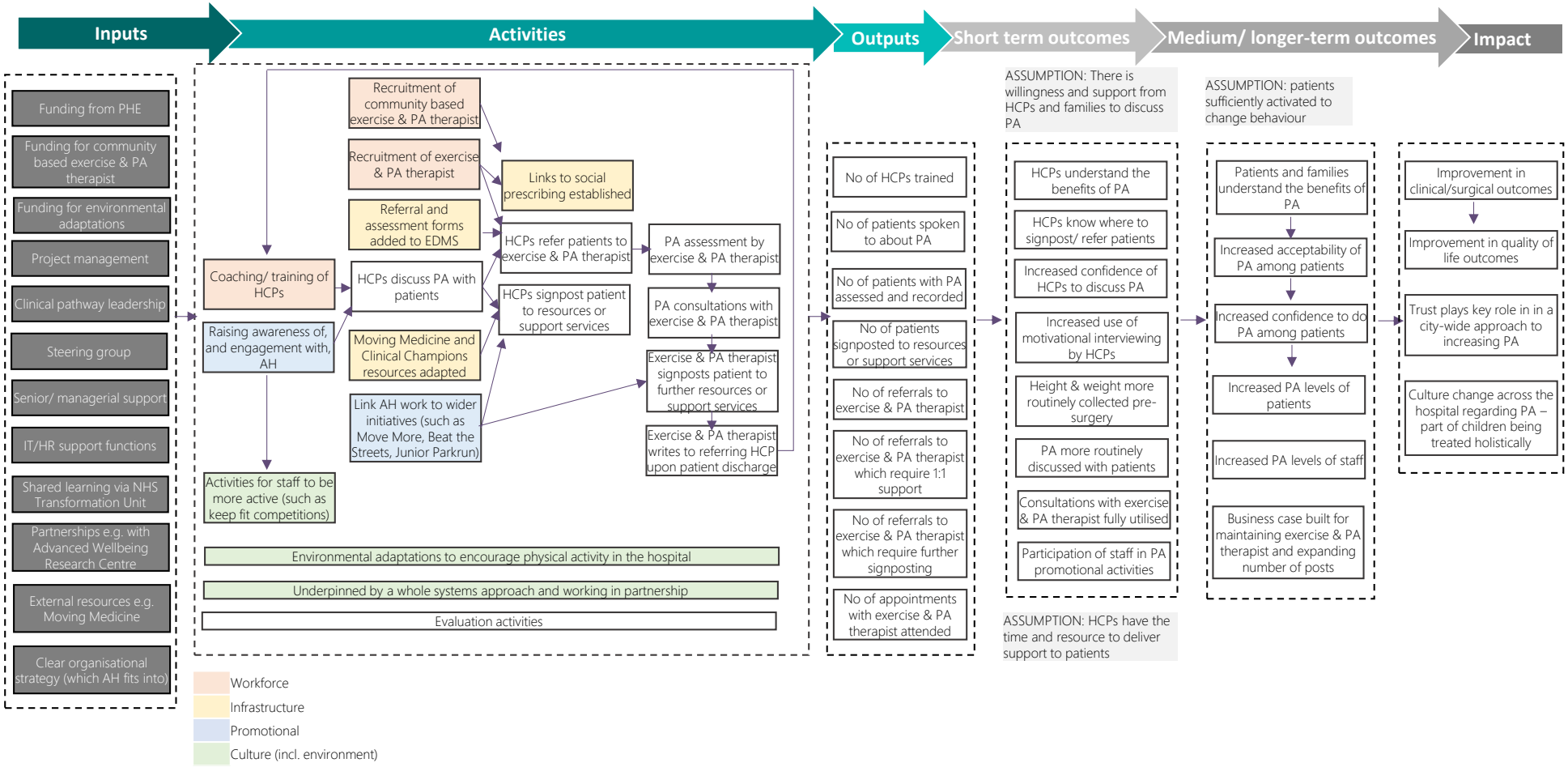
Programme Theory of Change



Logic model: Sheffield Children's NHS Foundation Trust

ACTIVE HOSPITALS: SHEFFIELD CHILDREN'S

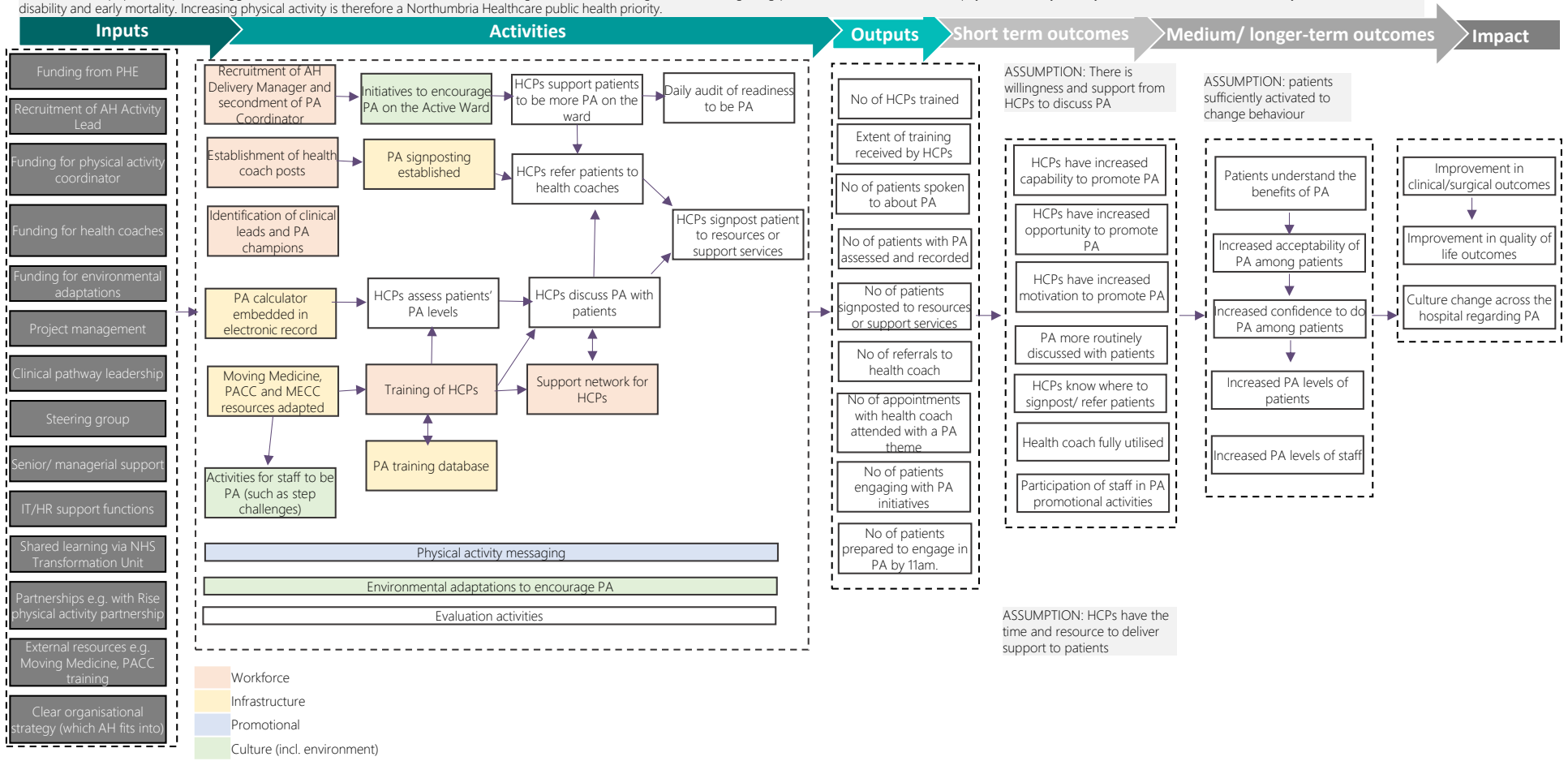
Context: Active Hospitals pulls together work undertaken by the Trust in recent years to care for children holistically. Sheffield is an 'active' city with many initiatives to support physical activity and an overarching public health strategy 'Move More'
Rationale: Physically active children become physically active adults thus increasing the physical activity of children can benefit them for a lifetime whilst also having positive effects on whole families



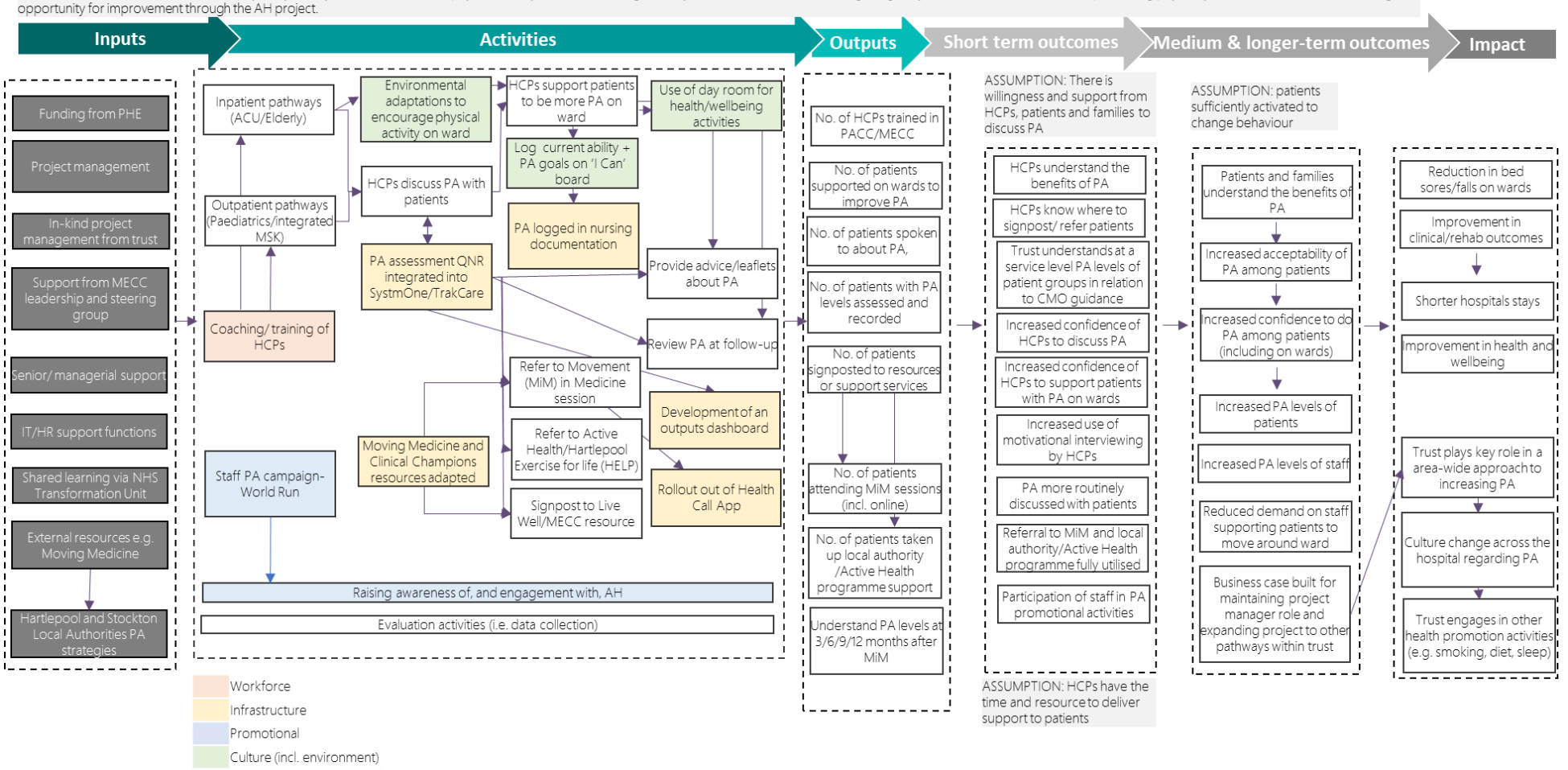
Logic model: Northumbria Healthcare Trust

ACTIVE HOSPITALS: NORTHUMBRIA HEALTHCARE

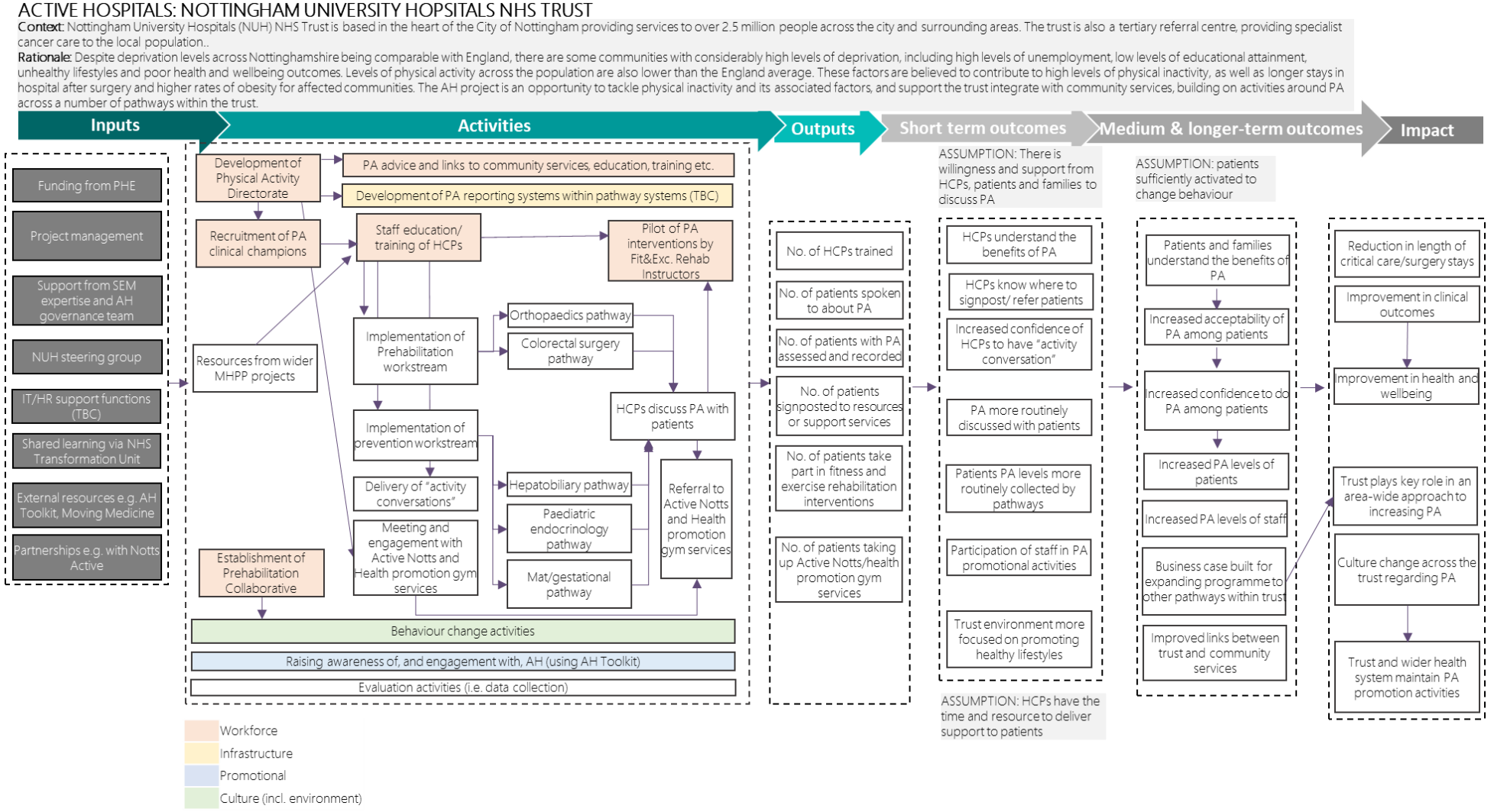
Context: Northumbria Healthcare Trust looks after the wellbeing of over 500,000 people living in Northumberland and North Tyneside. The large geographical area covered by the Trust is made up of rural, urban and seaside locations, thus providing an opportunity to pilot the Active Hospitals model in a diverse range of populations and settings.
Rationale: Trust population profiles suggest an estimated 26% of adults are inactive. The organisation acknowledges the value of getting patients to move more and that physical inactivity is a key modifiable risk factor for morbidity, disease related disability and early mortality. Increasing physical activity is therefore a Northumbria Healthcare public health priority.



Logic model: North Tees and Hartlepool Foundation Trust



Logic model: Nottingham University Hospitals NHS Trust



Framework for selecting pathways for inclusion in the evaluation

In the March 2021 Progress Report, we had initially envisaged selecting two pathways to participate in in the evaluation per pilot site, using a clear set of criteria. However, findings from Stage 1 of the evaluation indicated that we needed to take a more flexible and purposive approach to conducting this element of the evaluation. This is because:

- Pilot sites vary in the number of pathways they are delivering and the type of delivery models. For example, Sheffield Children's are delivering one model across three different pathways. Thus, focussing on only two pathways would mean we omit the third pathway. In comparison, North Tees and Hartlepool are delivering two models across four pathways, within two distinct types of service (i.e. outpatient and inpatient services). Thus, selecting a pathway from each service type would offer a reasonable comparison (i.e. inpatient vs. outpatient pathways).

- Pathways vary in maturity and patient throughput. Some pathways have mobilised much earlier than others, whilst some are still being setup. For example, at the time of selection, North Tees and Hartlepool had mobilised their two outpatient pathways but were still in the process of setting up their inpatient pathways. Nottingham had yet to go live with any of their pathways and were still in the planning and pre-mobilisation phase. Thus, it was reasonable to select pathways that had been operating for the longest period of time and had achieved a high patient throughput, as these would be the pathways most likely to achieve impact within the timeframes of the evaluation. This way, the evaluation could ensure resources were focussed on pathways that will get the greatest return in terms of data, understanding and likely impact.

We used a set of sample factors to inform the selection criteria. These are the key points of differentiation in terms of how pathways are being delivered as well as factors that determine where we are likely to be able to gather the most useful information.

- **Pathway type:** this is based on the variation in the type of pathway (e.g. outpatients vs. inpatients service; prehabilitation vs. prevention).

- **Delivery model:** this is based on the variation in the type of delivery model being implemented by pathways (e.g. referral to exercise and physical activity therapist vs. referral to educational session vs. direct support with physical activity from HCPs).

- **Maturity of the pathway and patient throughput:** As mentioned above, in order to maximise the chances of gathering information that is useful to the evaluation, and potentially understand impact, the maturity of the pathway and patient throughput will need to be considered during the selection process to ensure that selected pathways have been running long enough to make a valuable contribution to the evaluation.

We allocated flexible resources to each case study (e.g. approximately nine interviews per pilot site), divided between the selected pathways. The reason for this is to allow for differences across pathways. For example, some inpatient pathways are relatively small, involving HCPs and patients only, compared with outpatient pathways which involve HCPs, patients and personnel delivering referral services. The allocation of resources was discussed with the site and pathway leads to ensure it covers the variety of key roles for the specific pathway. The table below sets out the four pilot sites and their pathways, including key differentiation points.

Table 10.1: Pilot site differentiation points

Pilot site	Pathway (type)	Delivery model	Key roles within pathway
Sheffield	Asthma (outpatients)	Referral to exercise and PA therapist	Clinical lead Academic/senior lead Trained HCPs
	Oncology (inpatients)	Referral to exercise and PA therapist	Clinical lead Academic/senior lead Trained HCPs
	Pre-operative care (prehabilitation)	Referral to exercise and PA therapist	Clinical lead Academic/senior lead Trained HCPs
Northumbria	Pre-operative assessment (prehabilitation)	Referral to health coach / support network	Clinical lead/Physical activity champions/Health coach
	Living with and Beyond Cancer (community)	Referral to health coach / support network	Clinical lead/Physical activity champions/Health coach
	Parkinson's disease	Direct support in outpatient clinics	Clinical lead/Physical activity champion
	Diabetes – outpatients	Direct support in outpatient clinics	Clinical lead/Physical activity champion
	Maternity - community	Referral to health coach / support network	Clinical lead/Physical activity champions/Health coach
	Active Ward - inpatients	Direct support on ward	Physical Activity Coordinator/Clinical lead/Physical activity champions/Health coach
North Tees and Hartlepool	Integrated MSK (outpatients)	Referral to education session	Clinical lead Trained HCPs MiM session leads
	Paediatrics (outpatients)	Referral to education session	Clinical lead Trained HCPs MiM session leads
	Acute cardiac unit (inpatients)	Direct support on ward	Clinical leads Trained HCPs
	Elderly care (inpatients)	Direct support on ward	Clinical lead Trained HCPs
Nottingham	Orthopaedics (prehabilitation)	Referral to PA expert/support service	PA clinical champion Trained HCPs Fitness and exercise rehabilitation instructors Notts Active/Health promotion gym services leads
	Hepatobiliary (prevention)	Referral to PA expert/support service/ Direct support on ward	PA clinical champion Trained HCPs Notts Active/Health promotion gym services leads AH project steering group members
	Paediatric endocrinology (prevention)	Referral to PA expert/support service/ Direct support on ward	PA clinical champion Trained HCPs Notts Active/Health promotion gym services leads AH project steering group members
	Maternity/gestational diabetes (prevention)	Referral to PA expert/support service	PA clinical champion Trained HCPs

Pilot site	Pathway (type)	Delivery model	Key roles within pathway
			Notts Active/Health promotion gym services leads AH project steering group members

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Ipsos' standards and accreditations provide our clients with the peace of mind that they can always depend on us to deliver reliable, sustainable findings. Our focus on quality and continuous improvement means we have embedded a "right first time" approach throughout our organisation.

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This is the international market research specific standard that supersedes BS 7911/MRQSA and incorporates IQCS (Interviewer Quality Control Scheme). It covers the five stages of a Market Research project. Ipsos was the first company in the world to gain this accreditation.

Market Research Society (MRS) Company Partnership

By being an MRS Company Partner, Ipsos endorses and supports the core MRS brand values of professionalism, research excellence and business effectiveness, and commits to comply with the MRS Code of Conduct throughout the organisation. We were the first company to sign up to the requirements and self-regulation of the MRS Code. More than 350 companies have followed our lead.

ISO 9001

This is the international general company standard with a focus on continual improvement through quality management systems. In 1994, we became one of the early adopters of the ISO 9001 business standard.

ISO 27001

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