

# NIHR HealthTech Research Centre in Devices, Digital and Robotics – Patient and Public Involvement and Engagement (PPIE) Strategy 2024-2029

## Background

This strategy outlines the [National Institute for Health and Care Research \(NIHR\) HealthTech Research Centre in Devices, digital and robotics \(HRC-DDR\)](#) vision and priorities for working with patients, public and community partners. Over the next 5 years we will build upon and further enhance the PPIE base developed over recent years as the NIHR Trauma Management MedTech Co-operative (MIC). As an HRC we will widen our remit beyond trauma and this strategy lays out our plans to broaden our involvement, engagement and participation activities to support our research themes of medical devices, digital and data technologies and robotics and autonomous systems. We have deliberately chosen for PPIE not to be its own distinct theme within the HRC, but instead PPIE will be core to the programme and embedded within our research themes.

Our strategy is aligned to national policies and strategies including (but not limited to) [NIHR Going the Extra Mile Report \(2015\)](#), [Best Research for Best Health: The Next Chapter \(June 2021\)](#), [NIHR Strategic Commitments for Public Partnerships 2025-2030](#) and the [UK Standards for Involvement](#).

Working with patients and the public through meaningful involvement and engagement will help to ensure that new health technologies meet the needs of patients, clinical staff and society. Technology must be accessible and acceptable and there is an opportunity in the development of new health technologies to tackle health inequalities. The recent [Equity in Medical Devices independent review](#) highlighted the health impact of potential ethnic and other biases in medical devices and the HRC will follow recommendations to develop more equitable technologies. We will work in partnership with patients, the public and community partners from the earliest point possible in the product development pathway and build mutually beneficial relationships to develop and test technologies to meet unmet clinical needs.

## Who we are

The NIHR HRC-DDR is one of fourteen HealthTech Research Centres (HRCs) in the UK funded by the [National Institute for Health and Care Research](#) and is hosted by University Hospitals Birmingham NHS Foundation Trust.

The HRCs are funded to support safe, effective and efficient translation of new healthcare technologies into routine care for NHS patients and follow-on social care. The NIHR HRC-DDR will provide a national service supporting partners through the innovation ecosystem linking with expert academics and clinicians within our partner organisations and infrastructures, generating evidence to support uptake and adoption.

The NIHR HRC-DDR will play a key role in identifying unmet needs, supporting prioritised technologies, and generating evidence across Technology Readiness Levels (TRLs) to support the evidence required for regulatory approval and adoption.

Our core themes of Medical Devices, Digital & Data, Robots & Autonomous Systems, and cross-cutting themes of Human Factors & Usability, Health Economics & Value Proposition, and Regulations, cover the major areas of unmet need in the translation of health and social care technologies.

## How this strategy was developed

This strategy was co-produced by the HRC Core team/researchers and the patients and public throughout the summer of 2024. Our approach is based on the values of co-production: sharing power, including all perspectives, respecting values and knowledge, working for mutual benefit and building and maintaining relationships.

Three interactive workshops were held exploring the key values our PPIE strategy should be built upon and the definitions of *Involvement* and *Engagement* to be used. During the sessions we used a variety of tools and activities to delve into the original PPIE objectives set at the HRC application stage considering if these were still fit for purpose and exploring what success for each objective would like to develop our strategy. Detailed notes of the workshops were taken to capture discussions and decisions.

An initial draft of the strategy was formed from the discussions and outputs of the workshops. This was shared with all stakeholders involved and underwent a process of refinement to arrive at the final strategy.

We offered engagement in the process via a variety of methods, for example emails, in-person or virtual 1:1 sessions and workshops. All patient/public contributors were offered honoraria in line with NIHR guidance and were fully aware of the PPIE and EDI sections of the original HRC application.

University Hospitals Birmingham NHS Foundation Trust (UHB) hosts a number of NIHR infrastructures (NIHR Birmingham BRC, NIHR Birmingham CRF, NIHR West Midlands Patient Safety Research Collaboration). This strategy is complementary and aligned to the existing strategies for these infrastructures to ensure sustained and impactful PPIE across our region.

## Our definitions

- **Involvement:** Research being carried out ‘with’ or ‘by’ members of the public rather than ‘to’, ‘about’ or ‘for’ them (from [NIHR](#))
- **Engagement:** The myriad of ways in which the activity and benefits of research can be shared with the public. Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating mutual benefit (from [National Coordinating Centre for Public Engagement](#)).
- **Public contributor:** people (including carers) with lived experiences of health conditions and care systems who are actively involved in research.

## Purpose

This strategy expresses the values of those involved in its development and will form the foundations of our PPIE activities. At the start of this process we explored what is most important to our patients and public partners when considering PPIE in research resulting in a list of 14 values. A further exercise to consider the top 3 values for each individual was carried out; the following values were identified as the most important to patient and public members who participated in the development of this strategy:

- **Accessible/Inclusive** – *respecting everyone and providing equal access to opportunities to take part in research*
- **Trust** – *an open, honest, transparent and respectful partnership*
- **Mutual Benefit** – *patients and public working in partnership with researchers and industry partners through arrangements that benefit all*
- **Diversity/Representation** – *differences in race, ethnicity, gender, age, religion, culture, and socioeconomic status. It encourages respect and support where everyone's unique qualities are appreciated.*
- **Feeling Listened To** – *Patients and public see and feel the impact of their contributions through regular feedback*

Through this strategy we aim to deliver an **accessible and inclusive** package of PPIE where patients and the public shape our research and decision-making, through **mutually beneficial relationships** building **trust** with the **diverse** community we serve.

## Our strategic aims

1. Develop a sustainable, diverse PPIE community who feel respected, supported and confident to shape our research and decision-making
2. Establish a HRC PPIE Community that is representative of the population we serve, respecting and championing equality, diversity and inclusion
3. Work in partnership with patients, the public and local communities to deliver effective and inclusive communications and engagement activities
4. Build capacity and capability for PPIE within HealthTech Research
5. Co-develop plans to capture and share the impact of our PPIE
6. Promote equality in research leadership and governance structures

## Our objectives

Each Strategic Aim has several objectives. Our objectives describe how we will achieve our strategic aims for involving and engaging the public in the HRC. We have aligned our objectives to the UK Standards for Public Involvement.

**Aim 1: Develop a sustainable, diverse PPIE community who feel respected, supported and confident to shape our research and decision-making**

UK Standards for Public Involvement aim aligned to

**Support and Learning:**

- Offer and promote support and learning that builds confidence and skills for public involvement in research.
- Seek to remove practical and social barriers that stop members of the public and research professionals from making the most of public involvement in research

Objectives		Time period	Monitored by
1.1	Assess the learning and support needs of public contributors when they first join the NIHR HRC-DDR group and annually thereafter	Short	Responsible: HRC PPIE Manager  HRC PPIE Managers to complete, document and annually review for all public contributors
1.2	Address the communication needs and preferences of individual public contributors, including co-developing tools for encouraging research teams to feedback to public contributors	Short/Medium	Responsible: HRC PPIE Manager  HRC PPIE Manager to support group members individually, tailoring communication methods/materials/training to support their individual needs.  Led by the HRC PPIE manager, working with HRC Core team and PPIE group members, tools will be developed to ensure clear and effective communication and feedback between HRC industry partners and community partners.
1.3	Seek and address feedback from public contributors about their experiences of being involved with the NIHR HRC-DDR	Medium	Responsible: HRC PPIE Manager & HRC Programme Manager  Complete annual evaluation of PPIE within the HRC Programme.  Complete individual project evaluations of the impact of PPIE.  Make use of existing tools and methods e.g. Cube Framework, GRIPP checklist, Public Involvement Impact Assessment Framework, Impact Log.  Design and implement a feedback questionnaire for public contributors to complete at the end of meetings/activities/event. Adapt approaches based on feedback to ensure continuous improvement.
1.4	Ensure systems of reward and recognition are equitable, efficient and	Short/Medium/Long	Responsible: HRC PPIE Manager & HRC Programme Manager

consistent working collaboratively	Implement local processes to pay public partners for their contributions and associated expenses. Align rates and process to national guidelines and other UHB hosted infrastructure to ensure consistency and collaboration locally.
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**Aim 2: Establish a HRC PPIE Community that is representative of the population we serve, respecting and championing equality, diversity and inclusion**

UK Standards for Public Involvement aim aligned to	<b>Inclusive opportunities:</b> <ul style="list-style-type: none"> <li>Public involvement partnerships are accessible and include a range of people and groups, as informed by community and research needs.</li> <li>Research to be informed by a diversity of public experience and insight, so that it leads to treatments and services which reflect these needs.</li> </ul>		
Objectives		Time period	Monitored by
2.1	Have clear recruitment and selection processes for public contributors by co-developing and implementing open, transparent and inclusive procedures for all new public involvement opportunities	Short	Responsible: HRC PPIE Manager  Open, transparent and inclusive procedures developed and implemented. New members recruited to a range of programme and project specific roles.
2.2	Identify and address barriers to engaging and involving people from underserved communities by actively reaching out to communities	Short/Medium	Responsible: HRC PPIE Manager and Research Inclusion Manager  Work collaboratively with other local infrastructures to engage with local communities to understand barriers. Continue interactions with community groups to remove barriers and sustain new and diverse patient/community partnerships.
2.3	Implement effective processes for collating demographics and protected characteristic information to allow specific enrichment for characteristics which are underrepresented in our PPIE group	Short/Medium	Responsible: HRC PPIE Manager and HRC Programme Manager  Process for collecting data developed and implemented working with PPIE group members. Target recruitment strategies to engage with underrepresented groups. Invest in community engagement initiatives building relations with underserved communities to promote diversity and inclusivity among our public contributors
2.4	Collaborate with our regional and national partners to share opportunities for involvement widely using a	Medium	Responsible: HRC PPIE Manager  Opportunities advertised through regional and national networks using a range of inclusive and accessible methods. Diversity

	range of communication methods and appealing to different communities		in participants recruited into Involvement and engagement opportunities.
2.5	Develop and embed consistent support arrangements for diverse public contributors	Short/Medium/Long	Responsible: HRC PPIE Manager  HRC PPIE Manager to support group members individually, tailoring communication methods/materials/training to support their individual needs and remove barriers.

<b>Aim 3: Work in partnership with patients, the public and local communities to deliver effective and inclusive communications and engagement activities</b>			
UK Standards for Public Involvement aim aligned to	<b>Communication:</b> <ul style="list-style-type: none"> <li>Use plain language for well-timed and relevant communications, as part of involvement plans and activities.</li> <li>Communicate with a wider audience about public involvement and research, using a broad range of approaches that are accessible and appealing.</li> </ul>		
Objectives	Time period	Monitored by	
3.1	Co-develop a clear communications plan for PPIE, promoting awareness and understanding of the group to industry, researchers, clinicians, patients, community partners, and other key stakeholders.	Short	Responsible: HRC PPIE Manager  Communications plan for PPIE co-developed and implemented. This will be a live document that will continually be updated and refined based on learning, responding to stakeholder needs.
3.2	Use a range of inclusive and accessible communication methods with our local communities	Short/Medium/Long	Responsible: HRC PPIE Manager and Research Inclusion Manager  HRC will communicate with communities in a range of ways driven by the needs of the groups. E.g. variety of venue, times, face to face, virtual, email, written. Through community outreach activities and initiatives, barriers to engagement removed where possible.
3.3	Grow targeted partnerships with people and communities who are most significantly impacted by adverse social determinants of health inequality	Medium	Responsible: HRC PPIE Manager, Research Inclusion Manager and HRC Programme Manager  Working across local and national PPIE-led structures, deliver inclusive community outreach events in underrepresented communities to raise the profile of research and encourage participation.

			Build sustained, mutually beneficial relationships with community groups.
3.4	Work with regional and community partners to explore opportunities for joint engagement activities and research showcase events with communities	Medium/Long	Responsible: HRC PPIE Manager and Research Inclusion Manager  Inclusive community outreach events delivered by the HRC and working collaboratively with other local and national infrastructures/organisations.

**Aim 4: Build capacity and capability for PPIE within HealthTech Research**

UK Standards for Public Involvement aim aligned to	<b>Working Together:</b> <ul style="list-style-type: none"> <li>Work together in a way that values all contributions, and that builds and sustains mutually respectful and productive relationships.</li> <li>Public involvement in research is better when people work together towards a common purpose, and different perspectives are respected.</li> </ul>		
<b>Objectives</b>		<b>Time period</b>	<b>Monitored by</b>
4.1	Ensure researchers and industry partners are trained on all aspects of PPIE to ensure it is embedded within every project.	Short/Medium	Responsible: HRC PPIE Manager and HRC Programme Manager  Develop and deliver training/supporting materials for researchers and industry.  Ensure all collaborators undertake training at the start of a new project. Plan PPIE activities for the project setting deadlines and milestones. Schedule dates for activity and feedback sessions for the full project lifecycle.
4.2	Strengthen and grow mutually beneficial partnerships between industry, researchers and community partners through continuous collaboration through a whole project lifecycle.	Medium	Responsible: HRC PPIE Manager, Research Inclusion Manager, HRC Programme Manager  Plan PPIE activities for the project setting deadlines and milestones. Schedule dates for activity and feedback sessions for the full project lifecycle. Ensure regular, open, transparent communication between industry/researchers and public contributors.
4.3	Improve understanding of the purpose, responsibilities and expectations related to PPIE for all HRC stakeholders, by encouraging and innovating best PPIE practice	Medium/Long	Responsible: HRC PPIE Manager  Develop and deliver training to all staff on joining the HRC.  Develop and deliver training/supporting materials for researchers and industry partners.

			<p>Host industry focussed events for HRC collaborators to improve understanding and purpose of PPIE.</p> <p>Work with the PPIE group and existing industry partners to develop materials and deliver activities.</p>
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**Aim 5: Co-develop plans to capture and share the impact of our PPIE**

UK Standards for Public Involvement aim aligned to	<p><b>Impact:</b></p> <ul style="list-style-type: none"> <li>• Seek improvement by identifying and sharing the difference that public involvement makes to research.</li> <li>• Understand the changes, benefits and learning gained from the insights and experiences of patients, carers and the public.</li> </ul>		
Objectives		Time period	Monitored by
5.1	Report, share and celebrate PPIE activities regularly and on an annual basis	Short/Medium/Long	<p>Responsible: HRC Director, PPIE Manager &amp; HRC Programme Manager</p> <p>Report HRC PPIE Strategy progress to HRC Executive Board, HRC External Advisory Group, UHB Board of Directors, BHP Board of Directors and NIHR through usual annual reporting routes.</p> <p>Hold annual HRC PPIE Celebration event showcasing the work of the centre and advertising opportunities to get involved.</p> <p>Publish case studies in a range of inclusive and accessible formats through a variety of routes e.g. HRC newsletter, HRC website, social media.</p> <p>Attend local and national events (face to face and virtual) to showcase our work.</p>
5.2	Work with public contributors to evaluate the activity, benefits and challenges of PPIE in health tech research, including the impact on public contributors and researchers	Medium	<p>Responsible: PPIE Manager &amp; Theme Leads</p> <p>Make use of existing tools and methods to evaluate activity at both programme and project level e.g. Cube Framework, GRIPP checklist, Public Involvement Impact Assessment Framework, Impact Log.</p> <p>Develop and implement action plans to address challenges identified specifically for HealthTech.</p>
5.3	Ensure researchers and industry partners who undertake research provide	Medium	Responsible: PPIE Manager & Theme Leads



	feedback to public contributors on their contributions		<p>At the start of projects schedule key dates for PPIE activities and feedback sessions for the full project lifecycle.</p> <p>Ensure people who participated in research receive feedback on projects so they can see their impact.</p> <p>Feedback provided using a variety of accessible and inclusive methods/formats.</p>
5.4	Share PPIE best practice and learning regionally and nationally	Short/Medium/Long	<p>Responsible: PPIE Manager &amp; HRC Programme Manager</p> <p>Collaborate regionally and nationally contributing to networks/initiatives to share learning from HRC PPIE activities. Implement new initiatives/methods learning from partners.</p>

Aim 6: Promote equality in research leadership and governance structures			
UK Standards for Public Involvement aim aligned to	<p><b>Governance:</b></p> <ul style="list-style-type: none"> <li>Involve the public in research management, regulation, leadership and decision making.</li> <li>Public involvement in research governance can help research be more transparent and gain public trust.</li> </ul>		
Objectives	Time period	Monitored by	
6.1	Equitable involvement of public contributors in the governance of the NIHR HRC-DDR programme and individual projects within the portfolio	Short	<p>Responsible: HRC Director</p> <p>Appoint public members to HRC Management Group and HRC Executive Group ensuring individuals are supported in their role.</p> <p>Where possible and appropriate, appoint public members as co-applicants on research grant applications and continue involvement through project management and steering committee participation.</p>
6.2	Monitor and review this PPIE Strategy and plans regularly	Medium/Long	<p>Responsible: HRC PPIE Manager</p> <p>Progress against strategy to be discussed at PPIE Group and HRC Management Group meetings. Update reports to be provided for HRC Executive Board Meetings.</p>

## Programme of projects and activities

We will use this strategy to inform our activities for each year (see objectives and monitoring information).

In the first 12 months the following milestones will be met to build a strong PPIE base for the HRC:

- Appointment of HRC PPIE Manager
- Core HRC PPIE Community established
- Induction and training programme for new members developed and implemented
- Opportunities to become part of the HRC PPIE Community disseminated through accessible and inclusive methods
- Regular bi-monthly meetings (face to face and virtual) established with group terms of reference agreed
- Public members recruited to HRC Management Group and HRC Executive Board
- Communication plan for PPIE co-developed

Following set-up of PPIE structures and processes, a plan of action for the next 12 months will be developed to support the delivery of the objectives within our strategic aims.

At the individual project level, a plan for PPIE for the full project lifecycle will be co-developed with industry, researchers and public contributors. Deadlines and milestones will be set with dates for activity and feedback sessions scheduled. This will ensure regular, open, transparent communication between industry/researchers and the patients and public.

To disseminate the work of the centre and advertise opportunities to get involved an annual HRC PPIE Celebration event will be held. We will also publish case studies in a range of inclusive and accessible formats through a variety of routes e.g. HRC newsletter, HRC website, social media. We will collaborate regionally and nationally to share and learn, continually improve and remain responsive to changes in the innovation landscape.

## Resources

To demonstrate our commitment to PPIE and ensure it is embedded within the HRC, a full time PPIE Manager will be appointed to operationalise this strategy.

Funds are also available to support the range of innovative, accessible and inclusive activities/initiatives required to deliver this strategy (includes but not limited to travel reimbursement, venue hire and refreshments, office consumables and printing, event planning and delivery).

In line with the NIHR strategic commitments for public partnerships 2025-2030 the HRC will ensure all participants are recognised and rewarded for their contributions.

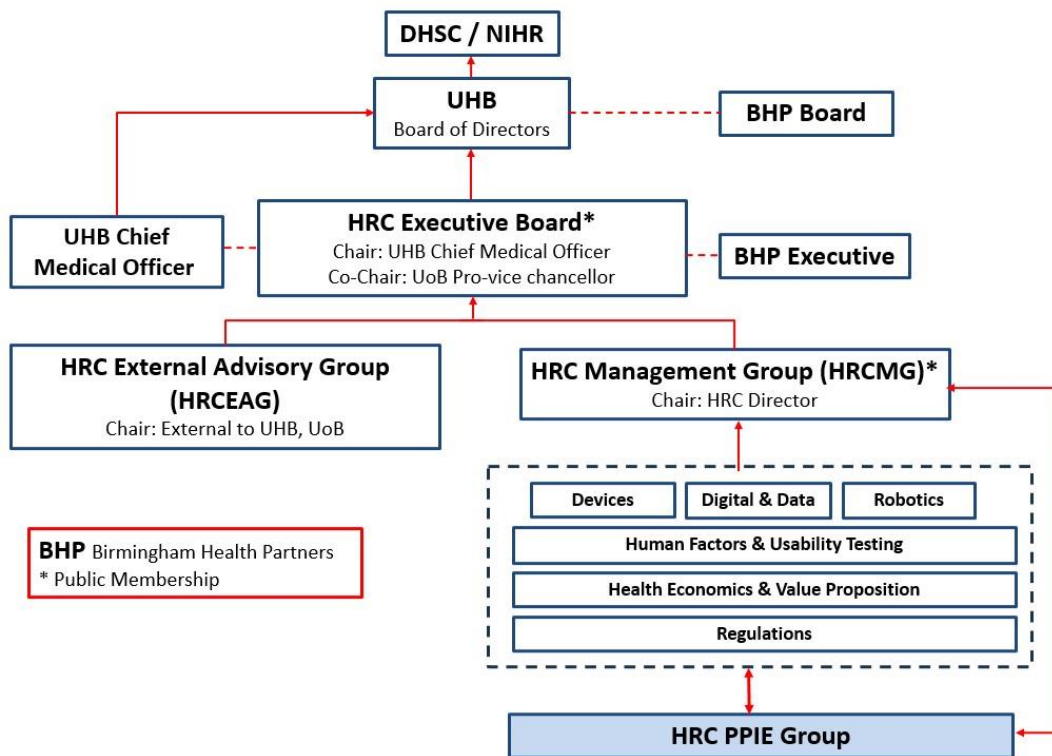
## Partners and collaborators

- NIHR Birmingham BRC
- NIHR Birmingham CRF
- NIHR Midlands Patient Safety Research Collaboration
- NIHR ARC West Midlands
- West Midlands Secure Data Environment for Research
- West Midlands regional network for PPIE: Public Involvement for Lay Accountability in Research (PILAR network)
- School for Public Health Strategy (PHRESH in the West Midlands)
- NIHR West Midlands Community Engagement Hub

- 1-NIHR (all regional NIHR infrastructure)
- Health Innovation West Midlands
- UHB/University of Birmingham Patient and Public Involvement in Research Network
- National NIHR HRC Network

## Accountability, monitoring and reporting

Progress against objectives outlined within this strategy will be monitored by the NIHR HRC-DDR PPIE Group. Quarterly updates will be reported to the NIHR HRC-DDR Management Group (chaired by the NIHR HRC-DDR Director, with public membership). The Management Group will be accountable to the NIHR HRC-DDR Executive Board (with public membership).



We will use the strategy to inform our activities for each year, and these will be reported in the Annual Report submitted to NIHR.

The HRC PPIE Manager will be responsible for the day-to-day operational delivery of the strategy, supported by the NIHR HRC-DDR Director, Theme Leads and Programme Management Team.

## Reporting impact

The HRC-DDR are committed to monitoring and reporting the changes, benefits and learning gained from the insights and experiences of all involved in health tech research. We will make use of existing tools and methods to evaluate PPIE activity at both programme and project level, from the perspectives of the patients, public, researchers and industry partners. Tools include but are not limited to the Cube Framework, GRIPP checklist, Public Involvement Impact

Assessment Framework, use of an Impact Log. We will ensure people who participated in research receive feedback on projects so they can see their impact.

The HRC will share best practice and learn from others by attending and presenting at regional and national conferences and events, publishing case studies and good news stories through a variety of inclusive and accessible channels.

## Acknowledgements

We wish to thank all who have given their time and expertise to support the development of this strategy. Our thanks extend to all of our public contributors – your insight, enthusiasm and support is greatly appreciated.