DIGITAL & **INFORMATICS**
PHYSIOTHERAPY GROUP

Physiotherapy Health Informatics Strategy

Optimising use of technology in our profession

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What is health informatics?

The Department of Health describe it as "the knowledge, skills and tools that enable information to be collected, managed, used and shared to support the delivery of healthcare and to promote health and wellbeing"

From its inception the profession of physiotherapy has been innovative and forward thinking. Members have generated evidence on which they have based and improved practice, have used their skills to problem solve, and have embraced new and contemporary approaches as healthcare knowledge has developed. Technology and health informatics have been an integral part of this evolution, and members have been using them to optimise their practice from the beginning.

Health informatics is a vital part of physiotherapy practice. Whilst some physiotherapists may become informatics specialists, the whole profession needs to be aware of the opportunities and support it can give our services and patients. It can support us to work efficiently, evidence our impact, and enable patients to achieve positive outcomes. Informatics can help us future-proof the physiotherapy profession, as healthcare, education and research continue to develop and evolve. It is not a question of if nor why, but how every member of the profession can get involved.

For those reasons, I am delighted to welcome the publication of the CSP's first ever Physiotherapy Health Informatics Strategy (PHIS). The CSP's core health informatics team, supported by wider staff and members, have reviewed the international evidence to guide the content and structure of the strategy. Links have been forged with organisations and we look forward to seeing these collaborations bear fruit. I particularly look forward to seeing its impact on the profession and how it can support our members to practice in the digital age."

Professor Karen Middleton CBE

Chief Executive
Chartered Society of Physiotherapy

Introduction

The physiotherapy profession has been active in the field of health informatics for many years. From the early days of electrotherapy, through bar code scanners for data capture, to the current day of gamification, artificial intelligence (AI) and robotics, the CSP has promoted the use of health informatics in physiotherapy. In 2019 it formed the Digital and Informatics Physiotherapy Group (DIPG) to bring together members of the profession who were involved in or interested in informatics. Although numerous digital and informatics strategies have been published in recent years by various organisations, their impact on the physiotherapy profession has been limited. None of the strategies focused exclusively on physiotherapy, therefore at the end of 2021, the CSP began developing the Physiotherapy Health Informatics Strategy (PHIS) alongside subject matter experts, the DIPG and CSP members.

PHYSIOTHERAPY HEALTH INFORMATICS STRATEGY (PHIS)

VISION

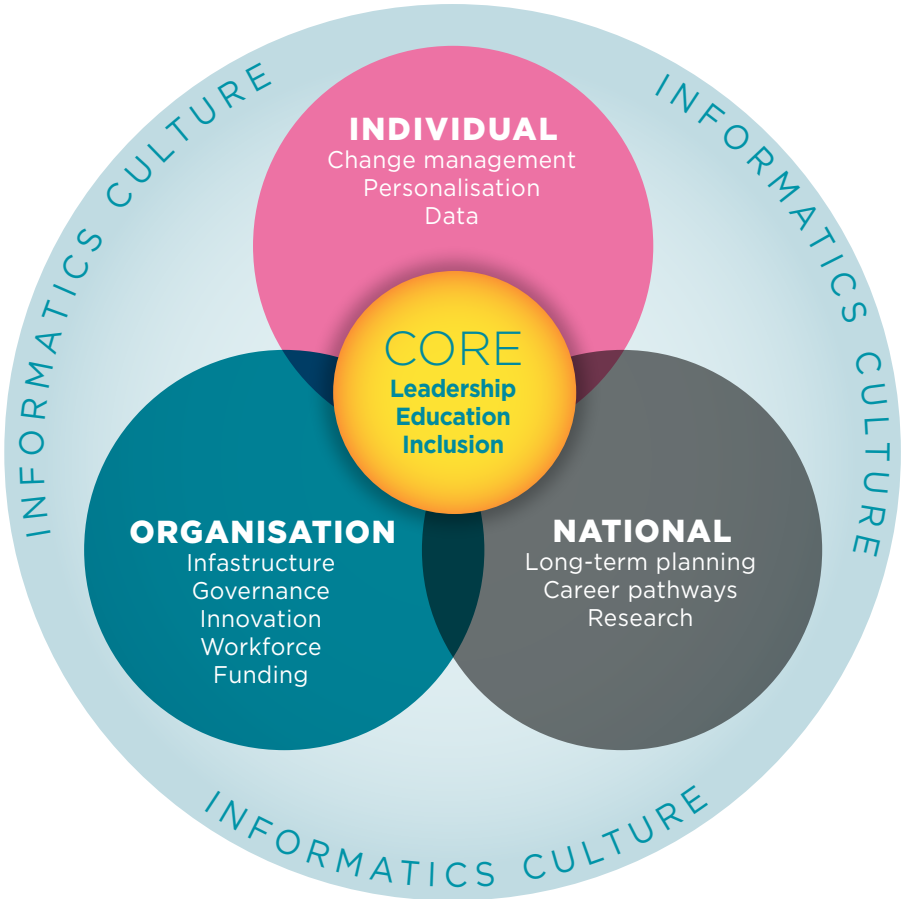**PRACTICAL APPLICATION**
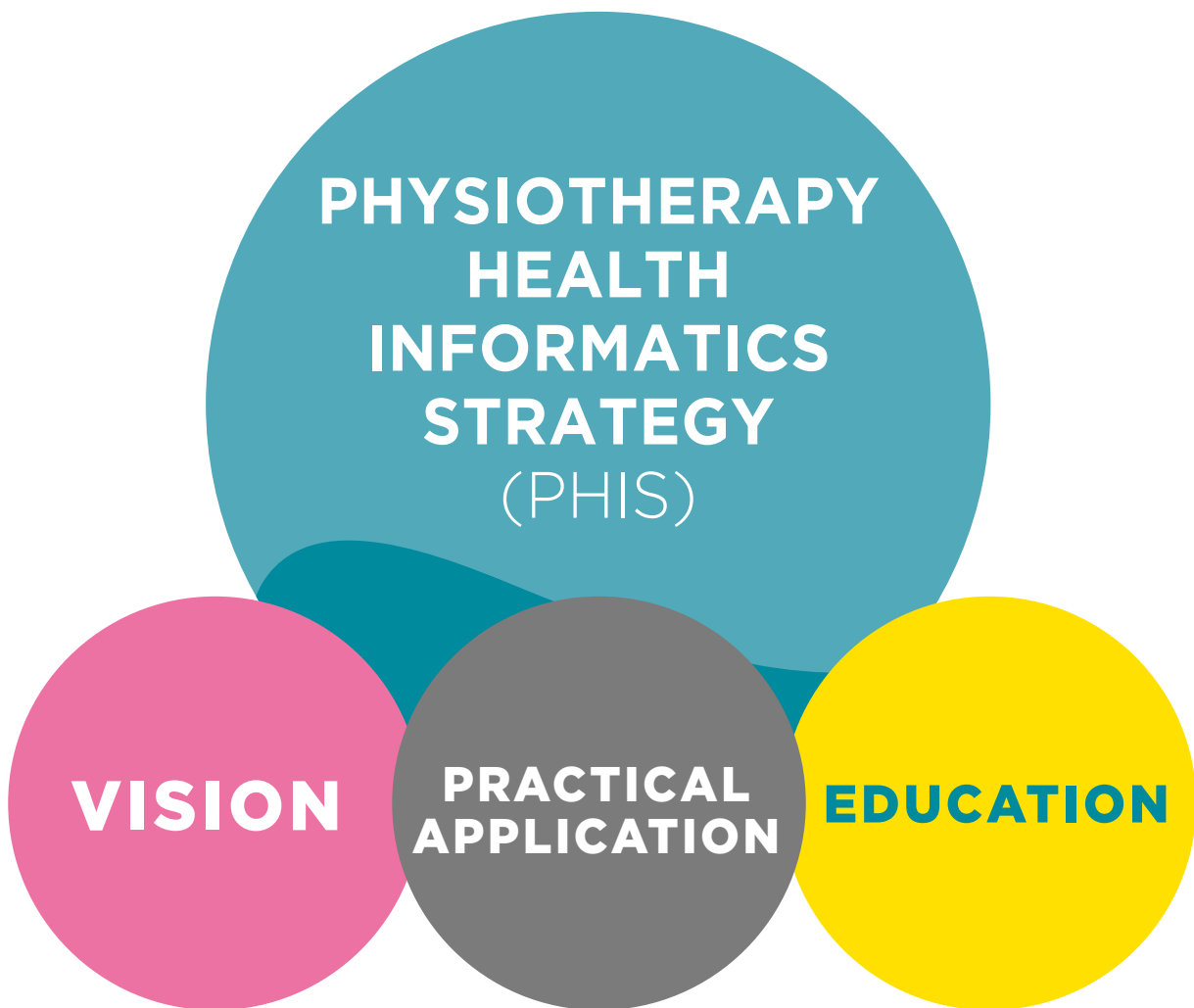
EDUCATION

The strategy has been developed to optimise the use of informatics in the design and delivery of physiotherapy services. It will support the work of members across the four pillars of clinical work, leadership, education and research, and will contribute to maximising the outcomes of our patients.

The PHIS is comprised of three sections. The Vision describes the areas where members can drive improvement through informatics. The Practical Application gives guidance on how members can lead change and showcases individuals and services who have already achieved good practice. The Education section offers a suite of modules to enable members to develop their informatics knowledge and skills and offers signposting to further resources.

PHIS Vision

There are many areas of health informatics where the physiotherapy profession can lead change, drive improvement and demonstrate impact. The Vision is split in to the same three levels of the strategy aims: individual, organisation and national, with some core elements working across all of these levels. However, no matter

INFORMATICS CULTURE

INDIVIDUAL
Change management
Personalisation
Data

CORE
**Leadership
Education
Inclusion**

ORGANISATION
Infastructure
Governance
Innovation
Workforce
Funding

NATIONAL
Long-term planning
Career pathways
Research

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the members' role or responsibilities, they can have a positive impact at any of these three levels. Whenever progress is made and maintained it will grow and develop informatics culture across the physiotherapy profession.

Everyone in the physiotherapy profession should be using informatics, where they are able, to improve their efficiency, to optimise their service delivery and to improve the outcomes of the patients they work with. In March 2022, the Health and Care Professions Council (HCPC) added a requirement to "utilise technology and digital methods to enhance the care that you provide" to their new Standards of Proficiency for all registrants. These changes will come into effect in September 2023.

Even the smallest of improvements may have a big impact so it's important to explore informatics opportunities as they arise, and be a part of influencing change and development.

Individual level

The PHIS strategic objective, to be delivered through the actions of members, is to improve the knowledge, skills and confidence of the profession in digital and informatics literacy. The 2021 survey of digital literacy across UK Allied Health Professionals (AHPs) demonstrated that there was the potential to improve digital competence to the same levels as confidence, and motivation towards engaging with technology and informatics in practice.

Collect
Once
Use
Numerous
Times

At an individual level this should be in the collection, use, analysis and sharing of meaningful data. Without a strong foundation of data our physiotherapy services will struggle to evidence their outcomes and impact. An ethos of COUNT (Collect Once Use Numerous Times) should be used paying close attention to relevant data governance standards and with the appropriate permissions in place. This data could be used for research as will be explored in the CSP Quality Improvement, Innovation and Research (QIIR) Strategy. Collecting, using and sharing good quality physiotherapy data does not have to be for published research, but can be for smaller scale individual, team, or organisational application.

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The mantra of "If you don't count, you don't count" should also be employed. Without data to demonstrate the value and impact of physiotherapy services, it will be difficult to showcase the incredible work being carried out by our profession. Data may be collected in a structured format using a monolithic electronic patient

If you don't count, you don't count

record (EPR) system, to less structured formats, for example, being collected locally on paper. However, it is essential that all members of the profession are playing a role in the collection, use and sharing of the best quality data for our services, showcasing the positive impact our profession has both on our patients and on wider areas of health and social care. The important role that data plays in the provision of health and social care is echoed in the "Data saves lives: reshaping health and social care with data" strategy for England with similar principles expected in the Scottish equivalent (publication expected late 2022).

All members must be competent and confident in the knowledge and skills needed to work in an informatics-enabled profession. This will allow us to select the most appropriate technology to personalise physiotherapy, and collaborate with our patients on service design, delivery, and decisions throughout their healthcare journey. Excluding informatics from practice means patients can be at risk of having less choice as to how the access services and may have suboptimal outcomes. Service development may be limited, and it may be difficult to adequately evidence benefits of a service. Learning and accreditation from bodies such as the Personalised Care Institute can support members to gain skills and confidence in individualising care. Emerging technologies, such as genomics, may also support in providing personalised care. NHS England (NHSE) released a genomics strategy "Accelerating Genomic Medicine in the NHS" explaining its potential role in providing precision healthcare to individuals using their genome. It is currently used in oncology and paediatric care but will expand to other clinical specialties in the future. For physiotherapists treating patients who are undergoing genomic testing and specialised treatment, and supporting their families and caregivers, the genomics education program published by Health Education England (HEE) may provide useful learning.

Embedding new informatics skills and behaviours will not always be easy. All members of the physiotherapy profession should be aware of the importance of change management and quality improvement, enabled by informatics, and how that applies to their practice. Managing individual and/or organisational change is critical to embedding new ways of working supported by informatics. The CSP QIIR Strategy will give further guidance on how members of the physiotherapy profession are expected to apply QI methodology in their practice, use data to support innovation and contribute to the local, national and international evidence base.

Organisation level

The organisational level objective aims to place informatics as a central part of transformation plans, cultivating a culture of co-design, supported by high-quality data to improve services, and healthcare outcomes. It will be delivered by those members who are able to influence organisational change and development, and be supported by wider members who can feed into these processes.

To do this, we need the right infrastructure to optimise the use of technology in our profession. The best infrastructure will be specific to the intended use, environment, and users amongst many other factors. It is absolutely not a "one size fits all" approach. Members of our profession and the patients they support should have the best hardware (e.g. laptops, tablets, dynamometers etc.), software (e.g. electronic health record systems, data analysis programs etc.) and connectivity (e.g. wired network, Wi-Fi etc.) suited to their specific needs. Without this, there is a risk of inefficient processes which can impact productivity, give margin for errors and impact on staff satisfaction. The correct informatics infrastructure can support staff wellbeing, enable them to deliver best practice and allow patients to achieve their best outcomes. Substandard infrastructure may have the converse effect.
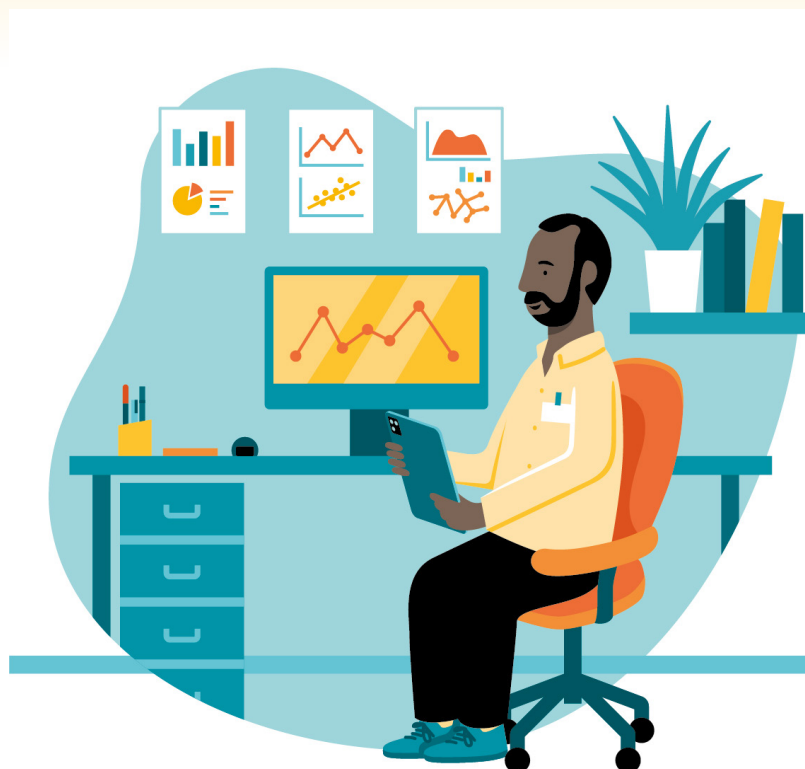
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It is essential that this infrastructure is protected in the correct way to allow for safe, efficient and appropriate sharing of data. All members of the profession have a responsibility to ensure their own practice is in line with the appropriate personal, organisational, national and professional data protection regulations. Members of the physiotherapy profession working in the UK must be compliant with GDPR, any regulations in place by their employing organisation, as well as the professional standards if registered with the HCPC, and the professional expectations if they are a member of the CSP. Organisations, and individuals within these organisations must also be compliant with digital clinical safety as appropriate. HEE, through their elearning for healthcare platform, have released freely available guidance on the essentials of digital clinical safety for the NHS health and social care workforce which can support members of the physiotherapy profession in maintaining a safe digital clinical environment.

It is essential that informatics enables physiotherapists to provide high-quality evidence based care, and that it supports non-clinical work for those in leadership, education, or research roles. For this to happen, members need to achieve core levels of competency with informatics. The use of a competency framework, such as the UK AHP Digital Competency Framework published by HEE in April 2021 can help to provide structure for upskilling and guide education and training needs. The Framework is comprised of 124 competencies over ten domains, however, these are divided into different levels depending on a person's grade and/or profession, which enables appropriate competencies to be set. For those members working in informatics roles, or aspiring to them, in 2020 the Faculty of Clinical Informatics (FCI) published their own Core Competency Framework which comprises 36 competencies over six domains and contains advanced competencies appropriate to those specialist roles.

Working with others in informatics roles, for example, data analysts or data engineers, is essential for developing services which work for those who design them, and those who use them. It is important to have a wider awareness of these roles, where they sit in organisations, and how to access their skills. Physiotherapists are now stepping into specialist informatics positions, such as Chief Clinical Information Officers (CCIO) or Chief Allied Health Information Officer (CAHIO) and are having influence at national level. Our presence in these roles will showcase the skillset of physiotherapists and help to develop a culture and environment where all professions are involved in informatics, and improvements and innovations can be co-produced to ensure they best meet everyone's needs.

Improvements in informatics infrastructure requires investment, both financially and in time. However, there investment can often bring longer term gains in skills, outcomes, efficiency and costs. To demonstrate these potential improvements, it is essential for members to have an understanding of data, including knowing which data to collect, and how to use it to evidence where investment could be beneficial. Data can help to support business cases for funding applications or support the release of staff time for training to develop informatics skills, which in turn can aid improvements. National, as well as local, funding opportunities are available via central organisations (e.g. NHS England) for services which display informatics innovation.

When designing and improving the physiotherapy services the profession can learn from the nursing professions who have developed the NHSX What Good Looks Like (WGLL) framework. Their seven success measures for services undergoing digital transformation, are that they should be well led, based on smart foundations, support safe practice, support nursing staff, empower people, improve care, and use shared data to support population health.

Throughout digital transformation processes we must endeavour to explore innovative ideas and technology to support members of the profession to provide high-quality services to our patients, which are co-produced to ensure they meet patients' needs, and deliver optimal outcomes.

While members of the profession are a critical part of collecting, analysing and using quality data, it is those operating at an organisational level that will be able to collate and present data as part of service innovations and work streams to open new horizons of what is possible with informatics in physiotherapy. Involvement in informatics at an organisational level is a vital way of ensuring that the physiotherapy profession is forward thinking and that its current members are future proofing it for those that follow.

National level

The national strategic objective is to influence and shape the national agenda, policy and guidelines on health informatics in physiotherapy. The aim is for it to be delivered by those within the physiotherapy profession with influence at a national and international level.

Improvement of physiotherapy services should be supported by positive informatics policies and strategic drivers, with those in leadership positions having the ability to exert whole system influence and change. Although a large proportion of the work will need to be delivered by individuals on the frontline of clinical services, clear, specific messages from those in positions of national leadership can provide guidance, and evidence the impact that informatics transformation can provide. This includes anticipated technology progression, and how this may dovetail with existing technology and informatics, which will help to pave the way for physiotherapists to innovate and adapt their services, as informatics continues to influence healthcare delivery. Embracing opportunities and including the voice of physiotherapy informatics at a national decision-making level can reduce challenges for those members of the profession responsible for enacting the change. The CSP will lead, collaborate and provide guidance, and will utilise member experiences and stories to support this. We will rely on your contributions to showcase local and regional informatics-led work, to influence national policy and strategy.

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All members of the physiotherapy profession having core knowledge and skills in informatics can help to accelerate the change we need. Therefore, it is essential that education is supported throughout the career journey as well as starting at undergraduate level. All newly registered physiotherapists should have a base level skillset in informatics, taught as part of the undergraduate curriculum. For physiotherapy support workers, role-specific training should be offered to enable that individual to be competent and confident in their use of informatics. For those already in the profession, the PHIS will provide educational tools to support learning as part of planned and structured CPD. This will provide a consistent level for informatics knowledge and training across the physiotherapy profession. From this point, those that wish to explore career opportunities in informatics, can use more specialist frameworks and competencies to guide them to do so. A physiotherapy skillset fits brilliantly with the analytical, problem-solving, and communication skills required of informatics roles. Other professions are also exploring the career pathways and role of informatics. In the nursing and midwifery professions there is the [Phillips Ives Review](#) which is an international collaboration of profession leaders and subject matter experts reviewing available literature and opinion to "provide evidence and inform strategy ensuring that nurses and midwives get access to the knowledge, skills and education required for safe, effective digitally-enabled practice" (HEE, 2022). Findings and guidance from the PHIS will be fed into this process and learning from the Phillips Ives Review will support delivery of the PHIS.

With guidance from the CSP, physiotherapy leaders can explore ways to embed a research culture within the profession, promoting the collection, use, interrogation and sharing of best practice data, and sharing opportunities for further research where gaps are identified. This will help to generate the evidence base for the use of informatics in our profession.

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Core elements

Leadership, education and inclusion are critical elements that underpin all levels of the physiotherapy profession.

Not all leaders of the profession are in roles of seniority. In the field of informatics, interest and involvement are more important than organisational role. Informatics can provide the environment for leadership opportunities, giving transferable skills which can be applied to all aspects of the profession. Physiotherapy needs informatics leaders at all levels, in all sectors, in all specialties if we are to succeed with our aspirations. This is supported by recommendations following the 2021 survey of UK AHP digital competence which advocated investment in digital leadership skills and strategy development.

Leadership at a national level may include representing UK physiotherapy at national or international forums and events or providing subject matter expertise to government or arms-length bodies. Leadership at an organisational level may include working as a CCIO, CAHIO or similar to drive informatics use, or in representing the physiotherapy profession in procurement, development or improvement of new systems and products in the organisation. Leadership at an individual level may be about being the departmental lead for good quality data collection, team representative on information governance, being an informatics champion, or by exploring the use of informatics to make a change to an individual patient's health outcomes. Leadership development at all levels can be supported by attending further training including the

Digital Health Academy, Topol Fellowship and the Digital Leadership Program, with many Masters and other level informatics modules and courses also available across Higher Education Institutions (HEIs).

All members of the profession must have the appropriate education to reinforce their best practice. This can be achieved through use of the HEE UK AHP Digital Competence Framework which articulates the expected competence for members of the physiotherapy profession based on their job role. Informatics skills provide crossover with other physiotherapy skills including leadership, quality improvement, and governance. This was evidenced in the 2021 survey of UK AHP digital competence which recommended that exploration of, and investment in the learning needs of our existing workforce is essential to meet the demands of delivering healthcare in the digital age. For those seeking to build a career in health informatics, there is also the Faculty of Clinical Informatics (FCI). They invite members from throughout health and social care to apply for membership and gain access to the knowledge and expertise held by their members. The FCI have also produced resources around multidisciplinary core competencies for informaticians wishing to specialise or lead in this area, these will provide essential guidance and clarity around the standards required.

Informatics concepts should be embedded in the physiotherapy curriculum, alongside other technologies, such as simulation-based learning (SBL). The PHIS Education modules offer CPD learning opportunities for those already working in the profession as well as students. As well as focussing on individual learning needs, physiotherapists, have a responsibility to contribute to the education of others. This can be through practice placement offers, research, quality improvement projects, and other initiatives to mobilise knowledge both across the profession and to appropriate stakeholders outside of physiotherapy.

Inclusivity should under pin all informatics change to ensure people are not excluded on a basis or skills or access. At a national level, this may include work to embed health inclusion in national policy. At an organisational level, it may include work to understand and make reasonable adjustments or alternatives to allow everyone to access the appropriate physiotherapy services. At an individual level it may include increasing knowledge around health inclusion, so members of the physiotherapy profession are able to make informed changes to the way they work, the services they provide and the public they support. It is imperative that

services understand the population to which they are seeking to provide service. Using public health tools such as Scottish Public Health Observatory (ScotPHO) or the Digital Exclusion Risk Index (DERI) can help a service better understand the unique needs and requirements of their population. Co-production of services, with those who use them, will help to raise awareness of, and minimise the barriers to inclusion, and help overcome the challenges of embracing technology as part of physiotherapy. All members of the profession have a responsibility for ensuring that we are using technology to break down barriers to access and outcomes rather than reinforcing existing ones or adding new ones.

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Informatics culture

Progress in any domain at any level will contribute to the culture of embracing informatics in the physiotherapy profession. An informatics-enabled culture will support incremental and exponential changes in the physiotherapy profession. Further progress will reinforce this culture offering an enhanced environment for future, development, led by informatics specialists but supported by all members of the profession. As transformation and evolution occurs across the breadth and depth of physiotherapy our profile will be raised across the health and social care industry, ensuring that UK physiotherapists are recognised as international leaders and innovators in health informatics.

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For enquiries please contact the PHIS team at **PHIS@csp.org.uk**

3rd Floor South
Chancery Exchange
10 Furnival Street
London, EC4A 1AB

🌐 *www.csp.org.uk*
✉ *enquiries@csp.org.uk*
💬 *+44 (0)207 306 6666*

THE CHARTERED SOCIETY OF PHYSIOTHERAPY

is the professional, educational and trade union body for the United Kingdom's 64,000 chartered physiotherapists, physiotherapy students and support workers.

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