LIVERPOOL HEALTH PARTNERS

Business plan from 2018

Version 1.2

19 December 2017

This report contains 63 pages

Appendices contain 11 pages

Contents

Contents (cont.)

About this document

This document sets out a working draft of a new strategy and business for Liverpool Health Partners ("LHP"). It has been developed by KPMG and a working group of LHP Board members during the period from 18 September to 8 December 2017. The work has followed on from an initial review of LHP undertaken by KPMG in July 2017.

The team have developed this document on an iterative basis, consulting extensively with the NHS and clinical academic community across Liverpool in order to reflect their views. This period of engagement has included:

- Interviews, one-to-one discussions and various correspondence with 46 stakeholders, sometimes meeting on more than one occasion;
- Five sessions with the designated LHP Board sub-working group;
- A workshop on 20 October attended by over 30 stakeholders from LHP member organisations, providing an opportunity for all Board members to engage and express their views on LHP's mission, its role and function and its future management and governance structure;
- A webex on 28 November attended by 20 stakeholders summarising the proposals set out in this document, with the materials circulated to all Board members thereafter.

The team has also engaged with the clinical review group set up by the University of Liverpool ("UoL"), led by Professor Tom Walley and sponsored by the Vice-Chancellor. Finally, it has also consulted with members of the National Institute for Health Research ("NIHR").

This document has the status of a working draft. LHP's strategy and business plan will necessarily evolve as LHP members seek approval to proceed from their individual Boards during January 2018. Further external factors will also have a significant future influence on the strategy, notably developments at the UoL following the appointment of its new Executive Pro-Vice Chancellor for the Faculty of Health and Life Sciences, and in the wider health economy linked to the Cheshire and Merseyside Sustainability and Transformation Plan ("STP") and the timing of the proposed merger of the Royal Liverpool and Aintree hospital trusts.

However, even though the above developments are likely to be significant, we do not believe that they will fundamentally alter the strategic direction for LHP and plans set out in this document. The two recent independent reviews commissioned separately by the UoL and LHP have both demonstrated that Liverpool needs to increase the quantum and quality of its clinical research in order to address the health inequalities that are so prevalent across the city. This is both an opportunity and a duty incumbent on all members of LHP. The necessary improvements are most likely to be achieved by much more effective collaborative working between the partners in pursuit of a strategy agreed by all, with a management team of the right quality and seniority, and governed more effectively than at present.

The following pages set out a strategy and a plan for achieving the above. Given the wide input involved in the development of this document, **the working group recommends that the LHP Board formally adopt this document at its Board meeting on 14 December.** Each LHP member will then need to present the document to its own Board in January 2018, with a view of having a new structure and membership model in place by 1April. We also recommend that the appointment of a Chief Executive Officer for LHP be approved at the Board meeting so that a search may begin for the right individual to drive the plans forward.

1

Executive summary

Background and context

Liverpool Health Partners

LHP was formed in 2012 as a strategic partnership between the main Liverpool Higher Education Institutions (University of Liverpool, Liverpool John Moores University, Liverpool School of Tropical Medicine) and the local NHS hospital trusts (Aintree, Alder Hey, Clatterbridge Cancer Centre, Royal Liverpool, Liverpool Women's, Walton Centre, Liverpool Heart and Chest, Merseycare and Liverpool CCG) in Liverpool as a virtual academic health science centre ("AHSC"). The local Academic Health Science Network (AHSN), named The Innovation Agency, is also an associate member.

Independent review of clinical research strategy by Holgate and Smyth

Liverpool's submission to receive NIHR Bio-Medical Research Centre status in 2016 was unsuccessful. Following this disappointment, the UoL commissioned an independent strategic review of clinical research in Liverpool, conducted by Professor Rosalind Smyth (University College London) and Professor Stephen Holgate (University of Southampton) in February 2017. The review team reported in April 2017 and suggested a series of recommendations to develop and improve clinical research in Liverpool.

One of the key recommendations was the need for a shared vision for clinical research to be developed between the NHS trusts and UoL. The report stressed the need to prosecute genuinely world-leading discovery science but emphasised that it had to be linked to the specific population health needs of Liverpool and Merseyside. The authors also noted the adverse impact of the historically fragmented nature of NHS provision in Liverpool and suggested that LHP could help to overcome this by promoting more collaborative working, especially through a more effective Joint Research Office.

The report noted Liverpool's traditional strengths in Pharmacogenomics and Infectious Diseases and noted some strengths in Cancer, Child Health, GI and ophthalmology. Other health areas of importance to the local population needed to be addressed more strategically. The report also recommended a review of the departmental structures within the Faculty of Health and Life Sciences at UoL and made a number of recommendations about clinical and non-clinical academic training and research culture.

A review group was convened to respond to the report's recommendations, chaired by the Vice-Chancellor and with a Task and Finish group led by Professor Tom Walley.

KPMG review: benchmarking and diagnostic report

Following on from the independent review, KPMG were commissioned in July 2017 by the LHP Board to benchmark LHP against comparator academic health science centres and make recommendations on LHP's future status and areas of activity. KPMG interviewed over 30 key stakeholders before presenting at the LHP Board meeting on 28 July. It was clear that a number of local stakeholders felt that LHP had either not been set up with sufficient clarity over its strategic aims or that it had not been successful in achieving them.

KPMG recommended that LHP's vision, strategy and plan be redeveloped so as to link its work to the population health needs in the Liverpool region. This direction would have the benefit of being consistent with the Healthy Liverpool blueprint put forward by Liverpool CCG and in the strategic direction of the Cheshire and Merseyside Sustainability and Transformation Plan developed by the NHS.

KPMG also suggested that LHP define its operating model, management and governance structures more clearly, with a management team led by a substantially full-time CEO and responsible to a supervisory board with more effective governance.

The KPMG team was then commissioned in August 2017 by the LHP Board to undertake the work with the LHP working group which has resulted in the business plan.

Key messages and decisions

LHP's mission

LHP Board and stakeholders have agreed the following mission statement for LHP:

"LHP's role is to co-ordinate the strengths of Liverpool in biomedicine and applied health research and the NHS with a single voice to support inward investment to improve health outcomes for Liverpool city and the wider region".

This statement is not substantially changed from LHP's initial vision but there is now agreement from members that the focus on population health is key. The mission also needs to be implemented more rigorously than has recently been the case, with a set of key performance indicators to hold the management to account.

Key messages and recommendations from stakeholders

- **There is strong consensus across Liverpool on the need for an entity such as Liverpool Health Partners** (LHP) to bring together the fragmented system and partners, and to bridge the gap between clinical academia, the NHS and the wider care economy to ensure that advances in research also benefit the local population in terms of health and wellbeing outcomes. Impacting population health and wellbeing needs must – for the first time - be an explicit central driving force within LHP's ambitions and strategy.
- **LHP therefore has a crucial role in building 'brand Liverpool' in clinical academic circles and beyond**: coordinating Liverpool to speak as one voice, bringing Liverpool's health brands and assets together as one coordinated hub, and marketing what Liverpool has to offer to the wider world.
- **To achieve this, stakeholders must support the research infrastructure and pipeline in Liverpool**, recognising the importance on acting together on areas for NIHR funding. LHP will set the right foundations, environment and collaborative culture for supporting this, initially by establishing a more effective unified R&D support service to save individual members' costs and duplication of governance and regulatory compliance. Research needs to be organised in accordance with HRA procedures and an effective clinical trials infrastructure established, which avoids duplication and is widely recognised for its high quality.
- **LHP's role is as an enabler and co-ordinator**. It should not undertake research activities directly but should concentrate on enabling an infrastructure to deliver the above. This will initially be a unified R&D support service, to be followed in the short term by helping to implement the recent health informatics strategy and subsequently by developing a coherent strategy for medical and clinical education across Liverpool.
- **LHP members need to focus their research in the right clinical priority areas**. The recent NIHR report on *The Future of Health* shows that future priority health areas are likely to be long-term non-communicable diseases, co-morbidities and population health more generally. All this is of great importance to Liverpool, given the significant health inequalities found in its population. LHP, in its role as a co-ordinator, therefore needs to build the foundations of an academic health science system which addresses these issues. At the same time, NIHR have stressed to us that BRC awards are made exclusively on the basis of demonstrating a critical mass of international excellence in experimental medicine (although other funding streams (e.g. CLARHC) are also likely to be important). LHP therefore needs to focus on developing or investing in real excellence in a limited number of clinical priority areas (likely to be only three or four) whilst also establishing the foundations needed for a future academic health science centre focused on its local population.

Key messages and decisions (cont.)

Key messages (continued)

- **Collaboration is critical**. None of Liverpool's health priorities can be addressed by any HEI or NHS trust or care organisation alone, given the number of specialist institutions in Liverpool. As Prof. Donal O'Donoghue noted at the Board dinner on 19 October 2017, members will need to "collaborate furiously" - the various partners may not always agree privately, but they should all be united in public behind the desire and need to collaborate. Individual Board members need to develop more effective working relationships and to understand each others' personal and professional agendas in order to do so. The greater involvement of primary care in this agenda will also be of critical importance. Collaboration further afield – in Manchester or nationally - will also be necessary in some areas, notably in cancer. LHP must also make the most of collaboration opportunities with regional and national bodies.
- **A new strategy and business plan must work towards demonstrating tangible benefits** to members and the local health and care economy within a series of distinctive timeframes from 1 April 2018. LHP's past lack of clear, tangible outcomes/benefits for members has made continued investment difficult to justify, and this needs to change. We suggest the establishment of an effective unified R&D support service as the key deliverable within the first year, with a small LHP team working closely with the NHS and HEIs involved in research. Other tasks for year 1 will include the development of a cancer strategy for Liverpool as a whole and a practical plan to implement the relevant parts of the LHP informatics strategy. The benefits of each deliverable need to be visible to members at the outset and on completion.
- **LHP should work towards a 5-10 year timeline** to allow adequate time to develop a culture of research within the care economy and its workforce, and to build real strength and critical mass in chosen academic areas linked to care delivery/applied research. Over time this should expand to involve primary care, local authorities and potentially other players such as education and police, to really impact wider wellbeing outcomes. It is likely that significant investment will need to be made by some members in senior clinical academic posts in the short term, but some parts of the strategy (notably the informatics and education plans) will not bear fruit until a medium- or long-term timeline. The likely need is for a dual strategy that converges short- and long-term objectives as investment in the selected clinical priorities areas begins to show real benefits in population health.

LHP Board decisions

The business plan has been developed iteratively with existing LHP Board members, management and wider stakeholders. The following key decisions were made by the Board on 14 December 2017:

- To adopt the mission statement and the outline strategy and business plan for LHP.
- To begin recruitment of an independent Clinical Chair and Chief Executive Officer for LHP. For both appointments, a job description and indicative salary should be prepared, head-hunters appointed and a timetable and process for appointment drawn up, all to be formally approved at the LHP Board meeting in January. The process should be delegated to a working group of the Board in the same way as the development of the LHP strategy and business plan.
- To begin the other activities set out in the 90 day plan on the following page.
- To mandate the working group to continue as set out below (next steps).

Next steps

The above activities should be carried out by the LHP working group, mandated by the Board. In addition to launching a recruitment process, the group should continue the development of the detail set out in the business plan, notably the clinical priorities and underlying projects, the membership model, the management team structure and the proposed corporate governance. The working group will need to continue meeting weekly. We believe that the LHP Board should meet monthly during the first few months of 2018 (even if by telephone/webex) so that an agreed, detailed version of this business plan is in place by 31 March 2018.

90 day plan

Critical 90 day actions

The following actions will be critical to be completed within the first quarter of 2018 in order to maintain momentum, and ensure that LHP has operationalised the new strategy ready to begin the next financial year. The suggested full programme plan is shown in section 9 of the full document (page 58).

Workstream	Activity	2017	2018	
		Q4	Q1	Q2
Team & Governance	Agree LHP strategy and business plan	■		
	Approve recruitment of CEO, and Independent Chair, devise job specifications and appoint search firm	■		
	Go to market for CEO and Independent Chair, receive applications		■	
	CEO and Independent Chair candidates shortlisted and interviewed		■	
	CEO and Independent Chair appointed (by 31 March)		■	
	Agreement on shape and size of LHP core team, roles & job specs		■	
	Implement any restructuring resulting from new core team structure above, including HR procedures. Begin and complete the recruitment to all remaining roles (including Research Lead)		■	■
	Commission options analysis for LHP's corporate structure and related tax analysis	■		
	Implement new corporate structure		■	
	Further development and final agreement of new membership model, to begin 1 April 2018		■	
Clinical Priorities	Finalise the 3-4 clinical priorities for LHP	■		
	Appoint/ reconfirm clinical academic programme leads for each priority area		■	
	Clinical academic programme leads to prioritise and shortlist the projects to which LHP will provide dedicated project management support (likely to be few initially)		■	
	Lead a cancer strategy on behalf of the wider Liverpool region		■	
Core activities: Unified R&D Support Service and Clinical Trials Hub	Hold stakeholder discussions to define the vision for a unified research office to be co-ordinated by LHP, taking account of UoL emerging views and the recent draft JRO options appraisal		■	
Core activities: Data and informatics	Recruit or second a director of informatics and a project coordination resource. Director needs to be a visionary who can translate technology potential into a practical vision that NHS and other stakeholders can understand		■	
	Detailed workplan development, working with strategic partners across the system		■	■
	Board and system agreement to begin workplan delivery		■	■
Core activities: Communications and Marketing	Recruit a full time senior Communications Lead and assistant		■	

Legend: ■ Priority activities (90 days); ■ Activities to be conducted after first 90 days

Clinical strategy and core activities

Strategy: Clinical priorities and how LHP will deliver on its ambitions

It is important that LHP's strategy supports and is aligned with the direction of the wider health and care system – on both Liverpool city and larger footprints. To this end, LHP's clinical strategy needs to be aligned with the Cheshire and Merseyside Sustainability and Transformation Plan (STP), the Healthy Liverpool strategy, and any emerging devolution and metro mayor priorities.

Clinical priorities have been driven by the most pressing health needs within Liverpool, as well as acknowledgment of areas of research strength. These clinical priorities are presented across the life course dimension, to reflect wider system strategy to focus on early intervention and prioritise children, early years, and young people as a result. The four clinical priority areas selected are:

i. **Maternal, children's, and young people's health outcomes; and transition** – maternal, early years, childhood, and young persons' outcomes as a key predictor of healthy outcomes and lives through the rest of the life course. This is critically linked with the second priority area.

ii. **Health inequalities and chronic conditions** – supporting healthy lives throughout the life course including ageing, linked to Liverpool's most pressing health issues such as mental health, respiratory, CVD, obesity, diabetes, arthritis, musculoskeletal disorders, vascular issues, effects of stroke and epilepsy.

iii. **Cancer** - a significant population issue for Liverpool, with poor morbidity outcomes strongly linked to health inequalities. Liverpool needs a city-wide cancer strategy which has access to the latest treatment methods and is relevant for the whole of Liverpool's population. All hospital trusts in Liverpool are involved with cancer in some way, and the strategy will need to link them more effectively, as well as developing the links into HEIs, primary care, and community care. The strategy is likely to focus on achieving local critical mass in the right areas whilst building collaboration with other cities likely to be further ahead in these areas, most obviously Manchester but also other centres of excellence across the country.

iv. **Infection and pharmacology** – focusing Liverpool's world-class strengths in these areas on domestic, NHS issues including: sepsis, anti-microbial resistance, hospital/community-acquired and global infection, therapeutics, stratified medicine and clinical pharmacology.

Clearly the above list covers a huge number of different health areas affecting the population. We believe that Liverpool, through LHP, needs to take this opportunity to build the foundations of an academic health science system that will make a significant contribution to improving the above areas over the next 5-10 years. At the same time, LHP will need to decide which are the initial key areas requiring focus so as to maintain or achieve critical mass in the shorter term (1-3 years) to maximise funding opportunities.

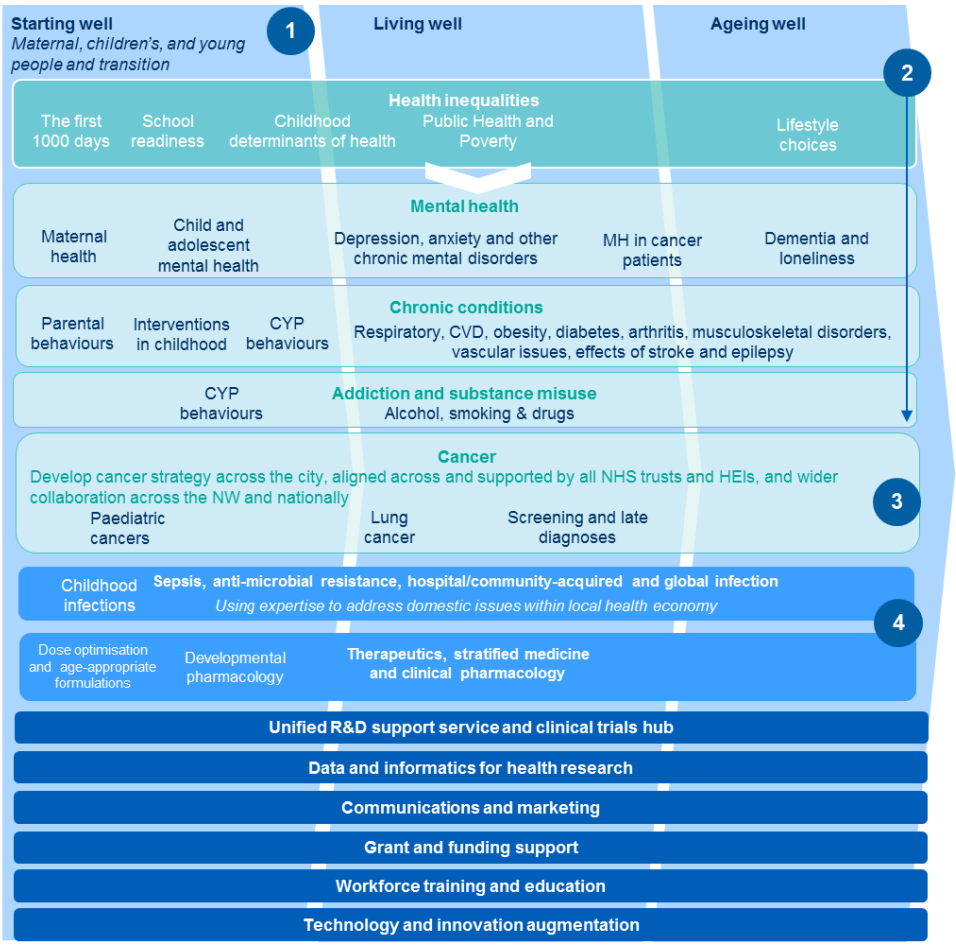
LHP will support members to deliver collaborative research projects within these areas, by coordinating relevant interest, expertise and experience from across the system. Specific projects will need to be selected based on selected clinical focus and a transparent criteria (TBD). LHP will also need to decide where to invest in building up capability within Liverpool, and where Liverpool should work collaboratively with leading centres nationally to address and support Liverpool's population health needs e.g. joining with Manchester on the Cancer priority.

Members need to commit to supporting the selected clinical priorities, and should seek commitment within their own organisations to support LHP's strategy and the projects that will be selected to deliver the priorities, and to reflect links and/or alignment to LHP's strategy within their own research strategies.

Note: We are aware that the working group set up to implement the findings of the Independent Strategic Clinical review has established a initial draft set of clinical priorities which are similar but slightly different in emphasis from the above. The LHP working group will need to work closely alongside the Task and Finish group, which is due to report formally in quarter 2 of 2018.

Clinical strategy and core activities (cont.)

Strategy: Clinical priorities and how LHP will deliver on its ambitions (cont.)



LHP will need to work with members to review its clinical strategy every few years based on outcomes, what it has been able to deliver within clinical areas, and in line with its business planning cycle. It is important to note that these priorities are not set in stone forever, but should be reviewed every few years to ensure their alignment with both local population health needs and local strategic priorities.

In addition, LHP will work to establish key enabling infrastructure for research collaboration:

- Unified R&D support service and clinical trials hub – bringing together all of the research and trials assets of Liverpool into a coordinated (virtual) hub, supporting better management of collaborative projects, and allowing Liverpool to be marketed more effectively as an attractive place to run deliver trials and research.
- Data and informatics for health research – pushing the agenda for using data-sharing and informatics for research purposes, and building on existing infrastructure plans to deliver this.
- Communications and marketing – communicating Liverpool's collective assets and collaborative approach to research to the wider world, including the public, industry, potential investors, and potential staff and students.
- Grant and funding support – supporting members on collaborative applications and bringing resources into Liverpool.

Clinical strategy and core activities (cont.)

Strategy: Clinical priorities and how LHP will deliver on its ambitions (cont.)

- Workforce training and education – supporting later stage translation to deliver the benefits of research for the local population, working with partners across the system to do so.
- Technology and innovation augmentation - supporting technology and innovation augmentation within new and emerging health/care research to support the care system to prepare for the challenges of the future.

These build on work already being done across the Liverpool landscape to improve clinical delivery, will help Liverpool to be a more vibrant and attractive place to do research, and are core functions that LHP must fulfil in order to support system-wide collaboration and deliver benefits to the local population's health outcomes.

Membership model

Membership model and benefits

There is broad consensus amongst members that the current membership and fee model is not fit for purpose. Whilst most members are contractually committed to pay fees to LHP at current levels until March 2020, the annual LHP budget needs to increase in order to achieve the levels of ambition discussed by members during this recent phase of work. The new suggested membership structure is split into three tiers (a fourth level could be added for potential non-Liverpool members at a later date), with members divided into tiers based on a combination of organisational footprint (size, population coverage, revenue), ability to pay, and the extent of likely benefits accruing to them. The suggested model is shown below.

Level	Suggested members	Contribution
Tier 1	▪ UoL ▪ Royal Liverpool ▪ Aintree ▪ Alder Hey	▪ Membership contribution of up to c.£0.5m (?) = perhaps £250K per org in year 1 ▪ Investment into world class academics / CIs within priority areas ▪ Contribution of clinician PA time dedicated to research ▪ Investment in clinical trials nurses to support new research in priority areas.
Tier 2	▪ Women's Hospital ▪ Clatterbridge ▪ LJMU ▪ LSTM ▪ LHCH ▪ Mersey Care ▪ Walton Centre	▪ Membership contribution of c.£100k ▪ Investment into world class academics / CIs within priority areas ▪ Contribution of PAs dedicated to research ▪ Investment in clinical trials nurses to support new research in priority areas. ▪ The scale of the above will likely be less than Tier 1 members in line with the likely lower patient numbers but all can benefit from the infrastructure that LHP will be setting up.
Tier 3	▪ CCG ▪ Liverpool City Council ▪ GP Federation	▪ Membership contribution of c.£50K. The CCG and the Council in particular are the organisations legally responsible for much of the health of the city's population and hence are likely to derive benefit from a re-launched LHP.

To show commitment to the new ways of working, allow them to become embedded, and to demonstrate benefits, members are asked for a minimum 3 year investment at this stage to the new membership model and investment amounts.

All members are likely to gain from both direct benefits to their organisations and indirectly from broader system benefits that positively impact patient outcomes, increased funding into Liverpool, and wider economic impacts. We expect that benefits are likely to be of a larger quantum for members within higher tiers.

System benefits

- Positive impact local population health outcomes by focusing collaborative research activity on local health issues. In the long term, this should broaden to include outcomes beyond health that are representative of broader wellbeing improvements (e.g. fitness for work, deprivation measures, broad early years outcomes for children, violence in the home etc.), supported by closer working with primary care, social care and other sectors such as police and education.
- Liverpool is likely to see a direct economic benefit to investing more effectively in research. Evidence shows that there is a 17 per cent annual return to the UK economy indefinitely for every £1 invested in medical research; which rises to between 24 to 28 per cent return when including the monetised benefits of a healthier population[1]. Other estimates have shown between 7 to 39 per cent per year return in perpetuity for investment in public mental health and CVD research respectively[2].

Notes:
1. Quantifying the economic impact of government and charity funding of medical research on private research and development funding in the United Kingdom, Sussex et al. BMC Medicine 201614:32 *http://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-016-0564-z*
2. What's it worth? Estimating the economic benefits from medical research in the UK, Health Economics Research Group, Office of Health Economics, RAND Europe. Medical Research. UK Evaluation Forum; 2008.

Membership model (cont.)

Membership model and benefits (cont.)

System benefits (cont.)

- Direct patient benefits – patients of Liverpool's NHS trusts are likely to achieve better individual health outcomes through increased access to research and clinical trials, via more research-engaged frontline staff who are able to articulate the benefits to patients. This emphasises the importance of LHP's role to promote the culture of research and staff engagement.
- Potential to improve intelligent commissioning capabilities based on improved data and informatics, which in turn is likely to impact positively on population health outcomes.
- Improved ability to attract and retain staff across the local academic, health and care economy as a result of creating a more research-focused culture: through investing in more research time within clinical roles, embedding research time into roles for new clinical appointments, and investing in leading academics and investigators to lead and support this research.

Direct benefits to organisations

All members will benefit from LHP's core activities and focus on clinical projects. These include the following:

- Tier 1 organisations are likely to benefit from significant funding grants from the NIHR and will have a direct interest in ensuring current NIHR funding is renewed (e.g. for CRFs). All members will benefit from additional NIHR funding into the Liverpool system through access to better research facilities, additional research opportunities, and additional opportunities for NHS patients to access research and trial opportunities.
- Access to capabilities and direct benefits from LHP core activities, including the proposed unified R&D support service, access to improved data and informatics capabilities (including for research purposes) across the system, better access to patients, and improving alignment between workforce training and development, research and local strategic workforce needs.
- Greater opportunities for funding for research projects and access to support/coordination for large, collaborative grant/funding applications.
- Access to dedicated resource to support research projects in LHP core clinical areas, based on prioritised focus areas and access to collaborative projects that may otherwise not have happened/been brokered.
- Bringing teaching and clinical staff closer together through better joint working, collaborations and possibly appointments. Also the potential to attract staff who will positively impact on teaching standards.

Resources and governance

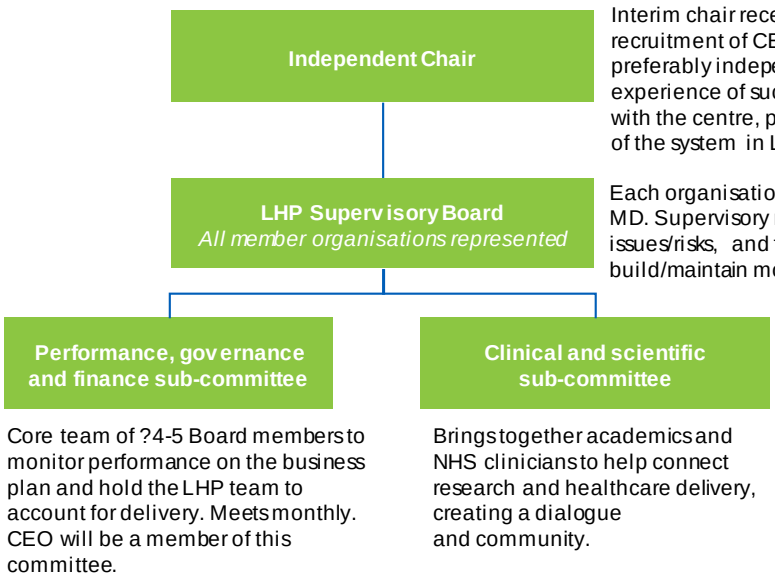
Resources: People and investment

Delivering the ambitions and activities set out will require some substantial changes to roles, capabilities, and financial investment in LHP compared to the current state. We have set out a resourcing model within the business plan that places far more emphasis on LHP's role to coordinate, influence and agitate the system. Many of the roles require strong capabilities in influencing all areas of the system (e.g. NHS frontline staff, senior leaders, academics), as well as leadership and proactivity. Critically important roles to get right that will directly impact on LHP's ability to deliver include: the CEO role, the Director of Research, and the Informatics Lead.

The additional resource requirement also has an impact on LHP's finances and the membership model. We have proposed a membership model that is based on a mixture of: members' footprints within the system and anticipated benefits to different members. We recognise that the initial commitment to this new model will require belief from members in the new strategy and business plan. Without this initial commitment, LHP will not be able to deliver on the promises of a collaborative health partnership/academic health science centre. Following establishment of the new model, LHP should be able to demonstrate more concrete benefits and returns on investment to members to support future commitments.

Governance structure

The new team structure and roles are supported by a new proposed governance structure that will provide stronger grip over LHP's delivery, agile decision-making, and thorough engagement of NHS, wider care economy, and academic colleagues. This structure will need to be supported by terms of reference that clearly set out powers, decision-making authorities, scheme of delegated powers and escalation processes.



Critical success factors

Critical success factors

There is a consensus across the system on the need for an entity such as LHP to exist, and agreement on the imperative to get this right for Liverpool in the form of LHP. LHP members now need to review the new LHP strategy and business plan on its own merits, support iteration to get to a final and agreed plan, and commit to individual members' roles within this. In order to succeed, LHP and members will need to:

- **Demonstrate upfront commitment** – We recognise that LHP has not been as successful or delivered on what members may have hoped in the past. The new strategy and business plan should represent a new era in which LHP's goals, outcomes, priorities and activities are clearly defined; and the previous failings of LHP are not used as reasons not to commit. This will require a leap of faith from members initially, but tangible progress and benefits should accrue within the first year.
- **Prioritise the key areas of focus** - see comments on pages 10 and 11.
- **Have strong leadership** – To keep LHP focused, and relentlessly drive forward progress in order to demonstrate benefits and tangible outcomes to members and the public.
- **Rapidly build trusted working relationships** – To support each other and LHP in the delivery of this plan, and to accelerate cultivation of a collaborative environment for research. This cultural shift can take a long time to build, and members will need to work concertedly on building these relationships in the first instance in order to achieve any noticeable changes.
- **Have strong governance –** LHP's key lever across the system will be influence; emphasising the importance of strong leadership. Strong grip on governance will be needed to ensure LHP members and staff adhere to the strategy and decisions made, and are consistent in their actions and messages.

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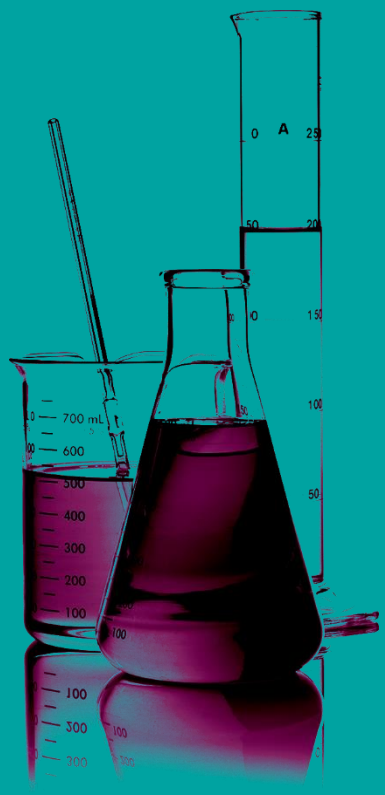
Strategy and outcomes



LHP's mission

Agreed mission statement

"LHP's role is to co-ordinate the strengths of Liverpool in biomedicine and applied health research and the NHS with a single voice to support inward investment to improve health outcomes for Liverpool city and the wider region".

Design Principles

These principles support LHP's strategy development and should govern key decisions on strategy, priorities and investment decisions. They are derived from understanding of what makes academic health science systems (AHSS') successful globally and nationally, as well as what is required specifically in Liverpool to make this work:

- Providing leadership in setting the research agenda to be more aligned with Liverpool's local population health needs.
- Fostering collaboration and mentorship amongst all members in support of the mission and delivering population health benefit. This may include brokering collaboration more widely to achieve the best results e.g. across the NW or nationally.
- Balancing the priorities of supporting world-leading research, with directing efforts at improving local population health outcomes and inequalities. In particular, taking advantage of Liverpool's research strengths and applying these for the benefit of improving population health outcomes.
- Providing a brokerage and coordination role to direct and sponsor collaborative activity across the city relating to agreed priorities. This may include supporting specific projects to be delivered. It is not intended that LHP undertakes or funds clinical research projects directly.
- Establishing the building blocks for a successful academic health science system and to support the local health research infrastructure and pipeline. Establishing the voice of patients and the public as a critical component of setting LHP's future direction. Currently this has not been a prominent part of the strategy setting process, but should be built into the delivery and the annual business planning process in the future.

What does this mean for LHP and its members?

In practice, LHP's primary role will be to proactively bridge the gap between research and the defined population health needs; and deliver activities that support this. Activities should include:

- **Leading and setting the collective agenda** towards which all members work, encouraging members to align their individual organisations' strategies to the needs of the local population, and promoting the strength of individual organisations' brands;
- **Identifying particular areas of research need across the local health and care system in support of the shared vision** through the identified clinical priorities e.g. influencing academic research and discovery priorities to improve future treatment efficacy, new delivery methods training for NHS staff, shaping the future workforce, support or mentorship for clinical staff with research interests but limited expertise and experience of research/trials;
- **Influencing senior leaders across the Liverpool system to support, commit to, and invest in the agreed priorities** – thereby reaffirming members' shared goals;
- **Setting up a more effective infrastructure to enable the priorities**, with a specific emphasis on research arrangements and informatics;

LHP's mission (cont.)

What does this mean for LHP and its members? (cont.)

- **Providing effective communication** across Liverpool of the strategy and the achievement against KPIs, supporting wider public campaigns (e.g. on data consent)
- **Supporting delivery of some core projects** in support of the above; and
- **Coordinating activity and engagement** - but LHP will always seek to return activities to members whose core business is more aligned to delivery of specific activities i.e. ambition to embed projects as business as usual back in Trusts and HEIs after a period of time.

Strategic context

LHP's ambitions need to be set against the wider context of the NIHR's future strategy, based on the RAND Future in Health report (Sept. 2017). This outlines the key areas for future research investment:

- **Population health challenges**: ageing, multi-morbidities, public health and prevention, health inequalities and their determinants, mental ill health, maternal and child health (life-course approach), responding to antimicrobial resistance and infectious diseases, and gaps in specific disease areas.
- **Health systems performance**: implementing effective health and social care, and implementing advances in technology and medical science.
- **Health research and impact**: driving new approaches to research, and facilitating patient and public involvement in research.

It is instructive for LHP to build a plan and strategy that supports the NIHR's future investment priorities - the proposed priority areas within this document have been selected with this in mind. Without NIHR support and associated funding, it will not be possible to maintain Liverpool's existing infrastructure (e.g. two NIHR funded CRFs) nor draw in additional funding/investment, and consequently Liverpool's ability to invest in research that supports improvement in population health outcomes will be severely limited. In this context, it is critical that HEIs and the NHS in Liverpool all support maintenance and development of Liverpool's research infrastructure and pipeline.

LHP's priority will be to focus on establishing the best foundations for Liverpool from which to apply for significant NIHR investment. The BRC is one of a number of NIHR investment opportunities, but is not the sole target, nor should it be a closed end objective towards which LHP is focused. LHP must be clear with all members and within its strategy that its goals are to establish the best *environment/foundations* from which to achieve NIHR investment in its research infrastructure, and deliver experimental medicine and research that will have a significant impact on population health outcomes. Members should, however, recognise the significance of achieving NIHR funding grants in the short term in order to support being able to secure future NIHR investment in Liverpool's areas of population health needs. In the short term these will need to be in Liverpool's current areas of research strength and necessitate acting together on areas for NIHR funding (e.g. BRC, CLAHRC);.

LHP must focus on a number of different activities in order to achieve this – crucially bridging the current gap between HEIs and the NHS in Liverpool. NIHR expects leading academics/research to be symbiotically linked to the local NHS through deep and dynamic relationships between the academia and the NHS.

In the short term, LHP will need to focus on delivering a collection of focused projects to build strong foundations, and that build confidence in collaboration across the system within a few, defined clinical areas. Defined activities and proposed clinical areas of focus are outlined in this document in sections 3 and 4 (pages 22-38).

10 year ambition

Delivering on LHP's ambition requires a long term commitment, and recognition of the timeline required to this. Here we have set out phased milestones of where LHP could expect to be in 1, 3, 5 and 10 years time – taking into consideration the timescales required to build up a critical mass of research and researchers; and the time required to demonstrate impact on health outcomes.

10 years

- Critical mass of nationally and internationally world leading research and researchers in priority areas
- Delivering measurable impacts on health inequalities, population health outcomes and health system performance
- Globally leading research and applied health research reputation on selected priority areas
- CRF funding renewed

5 years

- Establishing a clear reputation in selected, priority areas of population health need including demonstration of improving outcomes via applied health research, as well as leading (traditional) research; attracting leading academics in those areas
- Growing mass of research and researchers in chosen areas, including through NHS clinicians, supported by the system/LHP
- Significant NIHR grant funding being awarded to Liverpool; awarded the Experimental Cancer Medicine Centre; awarded the North West Cancer Research Centre

3 years

- Strongly established strategic infrastructure (data/informatics, unified R&D service etc.) that is widely recognised (regionally and nationally) to be a strength in Liverpool
- Track record of prioritised clinical projects improving patient outcomes and driving collaborative research across Liverpool
- Increased volume of research supported by shift in culture, investment in research activities and growing mass of SIs and PIs in core areas
- Members confident in Liverpool's collaborative culture and value delivered; multidisciplinary participation embedded in LHP membership model (e.g. social care primary care, others)

1 year

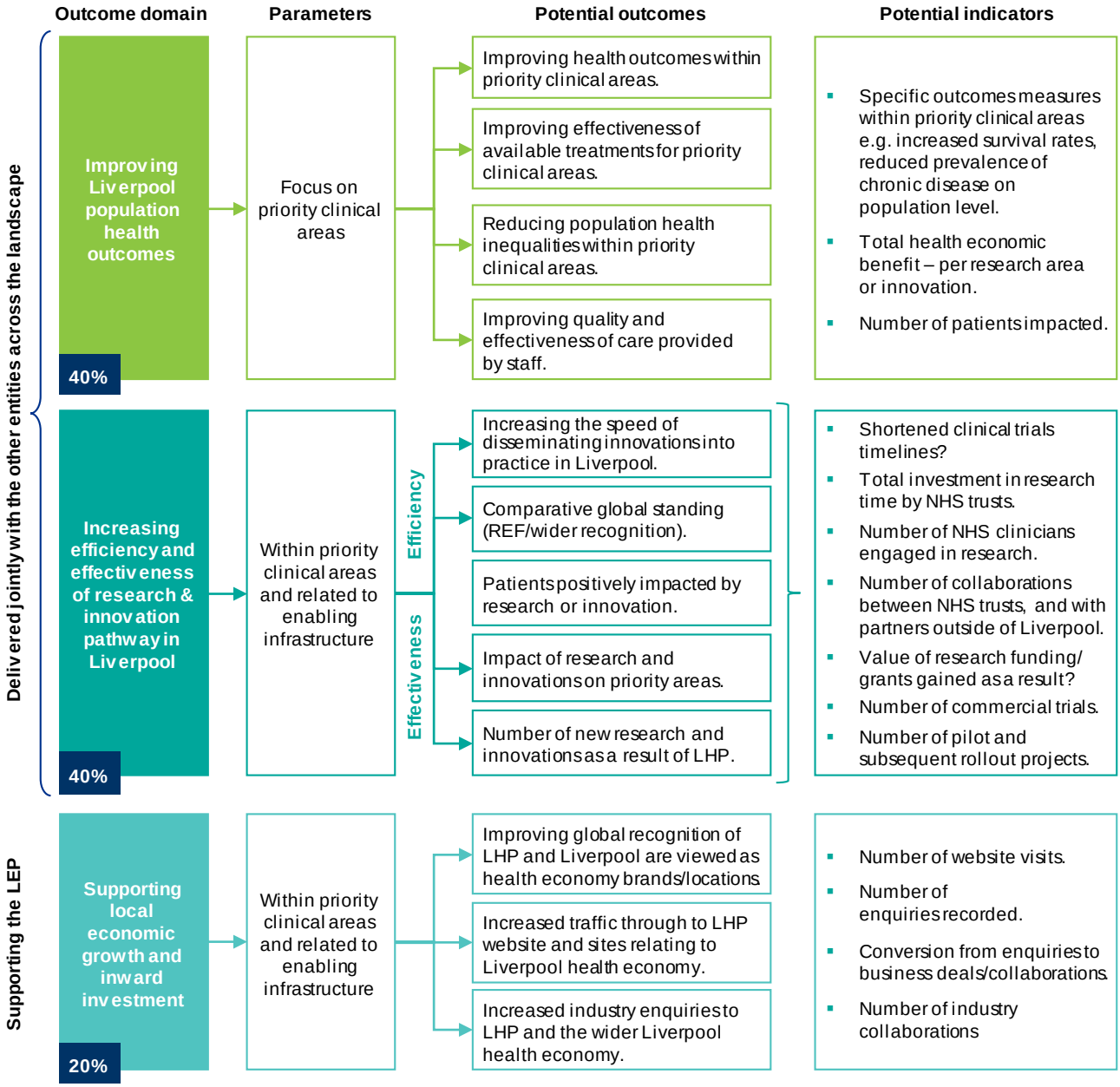
- CEO in post and leading LHP to deliver progress on the agreed strategy and business plan, in collaboration with all members – regularly reporting positive progress against outcomes/KPIs
- Define the clinical priorities on which to focus, mindful of the work of UoL's Task and Finish Group, and use this to the criteria for clinical projects selection
- Key strategic projects established (including unified R&D support service) and demonstrating progress on delivery
- Prioritised clinical projects gained traction across the system and beginning to see impact on outcomes
- Entering into annual business planning cycle

Outcomes framework

A clear outcomes framework is required to focus and monitor delivery of the strategy. This should be a simple framework that reflects the mission and defines a set of easy-to-monitor indicators. Shown below is an initial framework that LHP can build on over time, specific indicators will need to be agreed by members and potentially prioritised in order of importance.

During the first 12 months, it is recommended that LHP focuses its efforts on the first two outcome domains as LHP's core business and role: improving population health outcomes, and increasing efficiency and effectiveness – each weighted 40%. Supporting local economic ambitions are important but should come after LHP has established the basics in supporting core infrastructure and setting clinical priorities.

Future exploration of the economic domain could include ambitions to export Liverpool's expertise or specialisms, and further promoting Liverpool's unique selling points to attract inward investment.



3

Clinical priorities

Selecting priorities

Clinical priority areas have been defined through an iterative process, engaging with all LHP Board members at the 20 October workshop, and with other stakeholders across the system in subsequent one-to-one discussions. There is broad consensus on the need to refocus LHP priorities on address local population health needs, and health inequalities as a critical theme. Current research strengths should be directed at addressing the most pressing local needs.

There is broad agreement that:

- LHP should have a focus on addressing Liverpool region's population health needs as a priority.
- The main clinical priorities should include, in some form the areas of: alcohol, cancer, maternal and children's health (including young people), infection, mental health, chronic diseases – linked to lifestyle and behaviours, and the wider theme of health inequalities linked to deprivation.
- Liverpool's areas of leading research expertise should be exploited and, if necessary, redirected to support the priority areas defined above i.e. existing strengths should be used to address challenges within the NHS and the benefit of local population health outcomes. Where the capability does not currently exist to support the areas of greatest population need, LHP should help to broker strategic investment decisions by the member organisations to invest in the relevant capability.
- LHP members need to distinguish clearly between the areas of biomedical research needed for grants such as those made by NIHR and the more wide-ranging research capability that needs to be established in order to drive the necessary improvements in population health.

The selected clinical priorities and the supporting core activities align to and support NIHR's direction for the future. There remain some questions for LHP to consider relating to the nature of research LHP wishes to pursue and/or lead in response to the population health challenges posed. These questions do not have to be resolved immediately and an approach may emerge as LHP defines the projects that it will support within priority clinical areas over the short to medium term.

- **Population health challenges**:
  The majority of clinical areas selected have been done so on the basis of being the areas of most significant population health need within Liverpool. They have been chosen because LHP has made addressing the most pressing local population health challenges its priority. Health inequalities has also emerged as an important theme, particularly the links between deprivation and outcomes in cancer and other areas of chronic disease (e.g. CVD, obesity, respiratory disease etc.).
- **Health systems performance**:
  Can this model for research go wider than the traditional model / the laboratory? For example, understanding how new technology (e.g. artificial intelligence) can transform the traditional model of care delivery in the future, innovative business/service delivery models, how they could be funded, new and different types of investment, areas of social enterprise innovation etc.
- **Health research and impact**:
  Related to the above, how will LHP support an infrastructure that can innovate, and is receptive to, new approaches to research; and facilitate patient and public involvement in research? This is answered to some extent in the core LHP functions defined in the next section (see pages 27-38) but LHP needs to agree the extent of its ambition to push research boundaries in this space.

Clinical strategy

Shown below are the areas that LHP should consider as priorities. Areas are intentionally broad to ensure all members feel engaged and able to contribute, to move away from traditional siloes, and foster collaboration in areas of overlap. For the majority of issues raised here, the intellect/power to tackle them cannot be held in any single organisation and must be tested and addressed through collaborative efforts; this may include engaging stakeholders whom have not been significantly involved to date e.g. primary care, local authorities.

This list will require further refinement following emerging decisions from the UoL related to the anticipated restructuring of the Faculty of Health and Life Sciences, as well as decisions on the University's clinical research strategy. LHP's prioritised research areas will require strong, world-class academic support from Liverpool's universities in order to achieve the ambition set out.

1. **Maternal, children's, and young people's health outcomes; and transition** – maternal, early years, childhood, and young persons' outcomes as a key predictor of healthy outcomes and lives through the rest of the life course. This is critically linked with the second priority area.
2. **Health inequalities and chronic conditions** – supporting healthy lives throughout the life course including ageing, linked to Liverpool's most pressing health issues such as respiratory, CVD, obesity, diabetes, arthritis, musculoskeletal disorders, vascular issues, effects of stroke and epilepsy.
3. **Cancer** - a significant population issue for Liverpool, with poor morbidity outcomes strongly linked to health inequalities. Liverpool needs a city-wide cancer strategy that is relevant for all trusts that treat cancer, and is linked into HEIs, primary care, and community care.
4. **Infection and pharmacology** – focusing Liverpool's world-class strengths in these areas on domestic, NHS issues including: sepsis, anti-microbial resistance, hospital/community-acquired and global infection, therapeutics, stratified medicine and clinical pharmacology.

Improving research and health outcomes within each of these areas will be dependent on a number of specific projects, to be defined (see appendix for an initial list), that will be the mode through which members can collaborate and measure LHP's impact. One way of devising collaborative projects could be to set out the more pressing challenges/issues within each area; and to run a 'hackathon' type event where all interested parties gather together, collaborate, and co-create solutions. Such an approach would foster collaboration from project inception and move away from more traditional siloes and single-organisation driven approaches/projects.

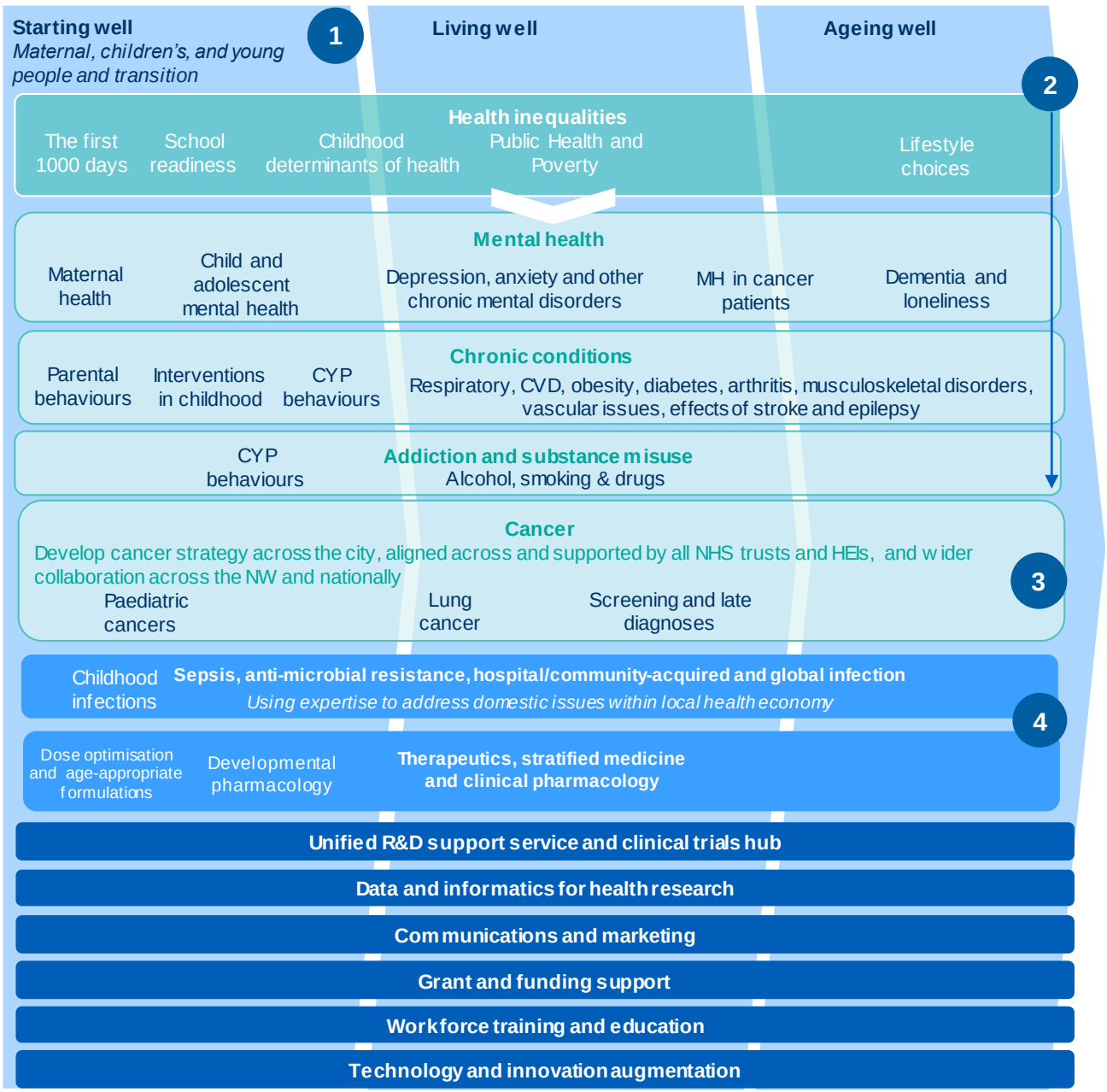
Please see the next page for a view of how these priority areas come together with LHP's core activities to deliver the strategy.

Clinical strategy (cont.)

This diagram shows the suggested LHP priority areas and the supporting activities required to delivery the strategy. Priority areas have been structured through the life course to align to the wider strategic context of Healthy Liverpool and the STP.

LHP will need to decide where within these priorities to invest in building up leading research within Liverpool, and where they Liverpool can work collaboratively with leading centres nationally to address and support Liverpool's population health needs e.g. joining with Manchester on the Cancer priority.

The rationale for selection of each of these priorities is shown on the next page. for more detail regarding LHP's core activities, shown in dark blue at the bottom of the diagram, see section 4 (page 27).



Clinical strategy (cont.)

Priority areas - rationale

1 Maternal, children's, and young people and transition

- The life course approach emphasises the criticality of supporting the best start in life – as this is a key predictor of later life outcomes – and the need to support good maternal health, children's and young people's outcomes.
- Supporting better outcomes in children is a form of early intervention and prevention which can significantly alter an individual's life course and health outcomes as adults – in turn having the potential to significant impact long term public health outcomes.
- Early years outcomes in Liverpool are far below national average; in theory addressing these outcomes now will yield significant long term benefits for future generations.
- The UoL's three Faculties have come together to agree a 'Children's Health and Wellbeing' strategy, focused on supporting research in this area. Additionally, there is strength in Alder Hey's research infrastructure and delivery, and significant areas of overlap with other LHP members' areas of specialism, particularly when linking children to families.
- Integration opportunities of LJMU's extensive expertise and synergies across sectors in children's health (e.g. sports and exercise science, pharmacy)

2 Health inequalities and chronic conditions

- This priority area specifically addresses some of the key long term conditions that are recognised as significant issues in Liverpool.
- These include: alcohol and wider substance misuse/addiction issues; cardiovascular and respiratory diseases, diabetes, and obesity which are all closely linked; and mental health.
- Respiratory, CVD and mental health are significant population health issues for Liverpool, and should be linked to academic expertise for population health benefits.
- A true 'Life course' approach would recognise that long term determinants are set in maternal and childhood and health inequalities and build on Liverpool's strengths here in making a difference to the future generations

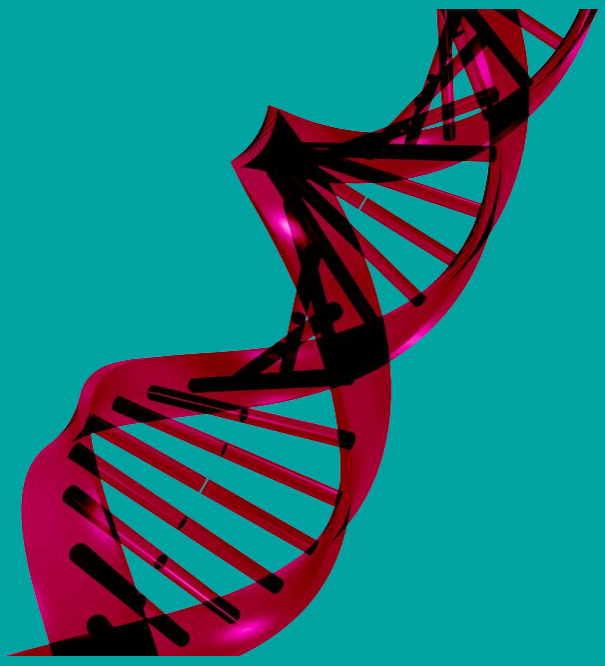
3 Cancer

- Liverpool has poor cancer outcomes: its cancer incidence rate is growing faster than the English average, and it performs poorly on cancer mortality (e.g. second worst in England for lung cancer mortality).
- Cancer is both specialist within Liverpool (through Clatterbridge) and everyone's problem – as it is picked up and treated across all Liverpool's NHS trusts.
- There is currently no cancer strategy across the city. A coherent cancer strategy is needed, and should be seen as an priority to address and bring together the existing, fragmented research and delivery capabilities across the system (i.e. within disparate areas of cancer and spread across a number of delivery sites).

4 Sepsis, anti-microbial resistance, hospital/community-acquired and global infection; therapeutics, stratified medicine and clinical pharmacology

- Research capability widely recognised as world class - to focus Liverpool's recognised world-class strength in infection (jointly across LSTM and UoL) on domestic issues within the NHS and locally in Liverpool.
- Need to develop a tripartite infection strategy between experts at LSTM, UoL and the NHS.
- Could be linked into pharmacology or included as a single priority strand with Pharmacology.

4



Core activities

LHP's core activities

LHP's core activities are those that are required to support delivery of projects within the selected clinical priority areas. These are shown in the 'strategy on a page' diagram (page 25) in dark blue, and are the things LHP will do in order to achieve and deliver on its mission (section 2, page 17). As a reminder, LHP's role will be to:

- Lead and set the collective agenda towards which all members work;
- Identify particular areas of research need across the local care system in support of the shared vision;
- Influence senior leaders across the Liverpool system to support, commit to, and invest in the agreed priorities;
- Set up a more effective infrastructure to enable the priorities, with a specific emphasis on research arrangements and informatics;
- Provide effective communication;
- Support delivery of some core projects in support of the above; and
- Coordinate activity and engagement across the system.

Consequently, LHP will have six core activities or functions, summarised below.

Core activities	Linked to outcomes
1 **Unified R&D support service and clinical trials hub**: Establishing Liverpool as a vibrant place for research and clinical trials - bringing together all of the assets across Liverpool into an easily accessible and attractive hub for industry, researchers, and world-class investigators.	▪ Number of commercial trials ▪ Shortened trial timelines ▪ Patient engagement in trials ▪ Population health outcomes
2 **Data and Informatics**: LHP will support the digital ambitions of the Liverpool City Region and the wider Cheshire and Merseyside regions, through realising a joined up approach to health data, essential to improving healthcare and to supporting research.	▪ Patient engagement ▪ Number of commercial trials ▪ Shortened trial timelines ▪ Population health outcomes
3 **Communications and marketing**: Ensuring LHP members, the public, and wider stakeholders have clarity on what LHP is, its priorities, benefits, respective roles in achieving these goals, and are engaged towards in relevant activities.	▪ Public/patient engagement ▪ Number of collaborations ▪ Number of industry collaborations
4 **Grant and funding support**: LHP will provide support to members in coordinating grant/funding bids and improving the capability of LHP members to bid. LHP will have a mandate to catalyse partners to action, coordinate collaborative bids, challenge partners on quality and/or content in terms of its alignment with the defined clinical priorities.	▪ Increased number and value of funding/grants gained ▪ Number of collaborations between members
5 **Workforce training and education**: Bridging the gap between HEIs and the care economy to find more effective ways of (i) disseminating new research into clinical practice, (ii) building a culture of research in the student body and future workforce (clinicians, nurses, etc.); and (iii) helping to address future strategic NHS workforce issues in the region.	▪ Speed of innovation dissemination ▪ Population health outcomes
6 **Technology and innovation augmentation**: Supporting the use of new technologies within research and new solutions to the priority challenges, by supporting multidisciplinary collaboration e.g. with Engineering departments, using artificial intelligence; and working hand in hand with the Innovation Agency and the NHSA etc.	▪ Population health outcomes ▪ Impact of research and innovation on priority areas ▪ Patients positively impacted

The following pages show more detail on each of these priorities and how LHP will delivery them over the short to medium term.

1. Unified R&D support service and clinical trials hub

LHP will establish Liverpool as a vibrant and attractive place for research and clinical trials. This will bring together all of the research assets across Liverpool into an easily accessible and attractive hub for industry, researchers, clinicians, and world-class investigators. The key will be to ensure coordination of all assets to the wider world, to deliver efficient and effective research; and market the collective wealth of research assets available in Liverpool. This approach is reflective of feedback given to Liverpool from the NIHR and will send a powerful message more widely about Liverpool's commitment to working together as one. The aims are not mutually exclusive of the recent JRO appraisal.

Aim

LHP aims to leverage the strength of existing assets, coordinated through a single hub with streamlined processes and aligned to the Health Research Authority (HRA). This will coordinate the currently fragmented infrastructure into a 'one stop shop' for all those wishing to access it and remove the current barriers that exist to R&D departments across the system working together e.g. by establishing common protocols, coordinating collaborative activity. The function will:

- Work with stakeholder organisations to bring together all of Liverpool's assets (including the CRFs and CRUs) to make them work better together, simplify processes and procedures, eliminate duplication and delays across organisations, improving efficiencies within the Liverpool system. Support faster contract negotiations and sign-off, particularly with commercial trials and industry partners.
- Provide simple navigation and point of access to Liverpool's trials infrastructure (physical and virtual). Provide information and guidance to industry, researchers, clinicians, the public etc. (all stakeholders) on both delivering and accessing clinical trials and research e.g. providing information on capacity and patient populations; understand organisation pipelines and where there might be additional opportunities inside or outside of Liverpool.
- Promote interdisciplinary collaboration between various HEIs and the NHS with regard to trials and research; alerting them to new opportunities for collaboration and fostering a culture of collaboration and mentorship to research more broadly.

Current assets include: 2 Clinical Research Facilities (CRFs), 4 Clinical Research Units (CRUs), wealth of research and trials expertise and experience within Liverpool, and any existing infrastructure aimed at improving trials bureaucracy and links to industry (e.g. the JRO, IGO, NHS trust R&D departments, other HEIs, the LEP Health and Life Sciences Board etc.).

Ambitions for the future could also include delivering a capability to assess eligible populations and other analyses for potential trials or research, with **possibilities** of becoming a revenue-generating function.

Approach

- Review and baseline current R&D assets and arrangements across Liverpool in light of the Health Research Authority's (HRA) improvement objectives to take on the functions of legal, compliance etc. centrally. LHP will lead development of a unified R&D support service and clinical trials hub with members (UoL and LJMU potentially) to streamline processes and governance, aligned with HRA functions, for all of Liverpool that will allow trusts to focus on providing capacity and capability to deliver studies effectively. Within this review, LHP will reassess the current JRO and IGO functions and governance (agree how this should look in the future, staff roles, and how to implement changes); and how this will align with the NW CRN.
- Work selected stakeholders across the system to co-design the wider vision and blueprint for the unified support R&D service and the clinical trials hub – how to support and coordinate collaborative studies, how assets will be brought together virtually, how it will be marketed, supporting infrastructure required etc.:
  - Fostering a culture of mentorship and collaboration between members, to support each other on research studies. For example accessing relevant expertise/experience in delivering trials from those who are more experienced.

1. Unified R&D support service and clinical trials hub (cont.)

Approach (cont.)

- Acting as a broker for parties interesting in participating/delivering research in certain clinical areas with the relevant experts or agencies/organisations via the network.
- Communicating and marketing the benefits of the unified R&D support service and clinical trials hub and attracting interest into Liverpool to deliver research.
- Supporting trusts to build up CIs and PIs across Liverpool.
- Supporting members with NIHR or research council applications e.g. through quality checking or coordination support (see in this section 4. Grant and funding support).
- Engaging the public and patients to communicate the benefits of research and promote their involvement in research – working with the CRN and other patient/public focused initiatives; and linked to LHP's public engagement campaign on data consent.
- Creating a detailed delivery plan for implementation of the service: that has a view of and coordinates all activity relevant to the above functions. The physical and virtual structures of this will need to be worked through in detail by the new unified R&D support service and clinical trials hub lead.

- This work will be led by LHP (Director of Operations, supported by project managers and research leads), jointly with the UoL.

Our Priorities

- Baseline and review exercise of current R&D assets and arrangements of Liverpool in relation to HRA proposals.
- Set up working group with UoL and others (e.g. LJMU, CRN and others TBC) that will co-design and develop the vision and blueprint for the unified R&D support service and clinical trials hub.
- Recruit a unified R&D support service and clinical trials hub lead to support this work. Priorities initially will be to create a detailed map of all assets across Liverpool; and coordinate co-design of a blueprint to bring these all together into a (virtual) 'hub'. This will need to be co-designed with all LHP members and wider partners.
- Agree a timeline, with key milestones for delivery on this area e.g. agreement on operating model for the unified R&D support service by 1 April 2018 to begin implementation; agreement on the blueprint for wider clinical trials hub by June 2018 for implementation starting July 2018.
- Work with the Communications lead/officer to ensure that this work and capability being developed is marketed appropriately both inside and outside of Liverpool.

Linked to outcomes

- Shortened trial timelines – expect key measures to improve as efficiency across the system is achieved, including efficiencies accruing to individual NHS organisations.
- Number of commercial trials – interest in delivering trials and research studies in Liverpool likely to increase as this capability develops and is better marketed over time.
- Patient engagement in trials – effective marketing likely to increase public interest in and patients recruited to trials/studies with Liverpool.
- Population health outcomes – health outcomes likely to improve in the long term as more studies are carried out in Liverpool, and there is increased public involvement in local trial activity.

2. Data and informatics

LHP will progress the health research informatics agenda across the region, supporting the digital ambitions of the Liverpool City Region and the wider Cheshire and Merseyside regions. This will realise additional benefits from the joined up approach to health data.

Liverpool already has a number of digital initiatives including the Merseyside Digital Roadmap, which details the overarching digital and informatics strategy for the Merseyside region with three shared digital ambitions: digitally empowered individuals; a connected health and social care economy; and exploiting the digital revolution. Additionally, the iLINKS Informatics Transformation Strategy has focused on setting up integrated electronic health and social care records, providing all local health and social care practitioners with he information they need, over and about that held in their employing organisation to care for individuals.

LHP have already developed a Health Informatics Research Strategy for the Liverpool City Region. LHP now needs to work out how to deliver on this strategy in conjunction with the other partners and aligned to the other digital initiatives ongoing – including alignment across the city (with LHP members and the CCG), Cheshire and Merseyside (at STP level) and across the NW (with the CRN, the Innovation Agency, and Connected Health Cities). In particular, LHP's initial priorities should focus on how to support the right infrastructure to include research as part of these strategies, as well as consent to use data for research purposes, across the system.

Aims

- To have an accessible data-sharing capability and infrastructure to support research, delivering on the aims of the recently published Health Informatics Research Strategy. For example, to support identification of eligible patient populations; statistical and predictive analysis of longitudinal patient data to help find/target better treatments or therapies; better monitoring as part of clinical trials through the care system etc.
- To agree data-sharing framework with appropriate consent from patients [opt out model]; and build public awareness and engagement in the benefits of providing consent for research purposes.
- Long term aim to be able to use joined-up data and predictive analytics effectively to support intelligence commissioning.
- Long term aim to create a bioinformatics capability to support new research and clinical delivery

Approach

- LHP needs to work closely with members and others (e.g. the CCG, Innovation Agency, STP and partners across the NW) to tie in LHP's informatics ambitions with the wider informatics developments in the region to ensure alignment and avoid unnecessary duplication. A regular strategic conversation between LHP and these partners to continue progressing this agenda and agree on aligned foci for each organisation would be beneficial.
- Work with LHP members, notably the CCG and STP, to assess existing digital programmes that are linking health care records and identify any gaps where LHP could support e.g. regarding infrastructure, such as putting in place a data ark; or campaigns with the public/frontline staff.
- Lead a data consent campaign targeting the public and frontline NHS staff to achieve consent on data for research purposes. There is a role for LHP here but it needs to engage with the CCG, STP, iLINKS, and Connected Health Cities to build on existing frameworks/programmes across the city and NW. This campaign would include:-
  - Extensive communications and engagement with the public, particularly on the benefits of research (e.g. what could personalised medicine mean for them), how data-sharing and consent supports this, how they can get involved in research, and addressing key concerns around data sharing.
  - Describing the benefits of data use for research and identify uses that are acceptable to the people in the Liverpool City Region.

2. Data and informatics (cont.)

Approach (cont.)

- Supporting adequate infrastructure and tools for consent, learning from other places where relevant e.g. a data consent app that the public/patients can access directly to manage their NHS data privacy settings.
- Focused engagement with NHS (and social care, in the longer term) frontline staff:
  - Gain their support and buy-in to (i) believe in the benefits to patients and the system for increasing data sharing consent, and (ii) provide them with tools and/or relevant training to approach discussions with patients. Growing consent will be dependent on face to face interactions by NHS staff with patients, so this engagement will be crucial.
  - Primary care engagement is critical – LHP will build links with GP practices through the Local Medical Committee (LMC) and the GP Federation to gain support.
  - Develop a small number of projects that can be undertaken within the NHS to demonstrate the benefits of this work e.g. working with a small number of primary care practices to demonstrate the clinical and research benefits of Farsite.

- Develop a detailed implementation plan of initiatives to support all of this work. This should be co-developed with stakeholders across the system. Work towards a longer term phased programme, that identifies key clinical pathways / services for data analyses, eventually building it up to encompass the whole healthcare economy, utilising the significant expertise and experience already present in Liverpool and the region.
- Identify workforce research health informatics training needs and feed these into the education/workforce training workstream if relevant; working with other stakeholders' workforce development programmes.

Our Priorities

- Recruit an Informatics Lead (could be a joint appointment with UoL's new Chair of Informatics, for example), and potentially additional project resource – to engage effectively with the wider system on this agenda, and lead a programme of work that will deliver on the health research data/informatics ambitions. The programme of work is likely to require significant resource if LHP takes responsibility for engaging both public and frontline staff to support data consent for research purposes.
- Engage with the CCG on a more regular basis to agree on a joint direction or strategy for health research in the data/informatics space. LHP's role in this will be to provide a conduit between NHS providers, researchers, and the CCG to agree a collective way forward – including research priorities and identifying gaps in infrastructure. Also ensure regular engagement with stakeholders on this agenda such as the Innovation Agency, and explore potential to work with other centres of excellence regionally and nationally to support Liverpool's ambitions.
- Develop a detailed health research informatics programme and implementation plan that LHP will own and manage; aligned to delivery ongoing in the wider system. This will include the data-sharing consent programme/campaign aimed at the public and frontline staff.

Linked to outcomes

- Patient engagement – by increasing public awareness of the benefits of research and conducting clinical trials. More patients/members of the public may also get involved with clinical trials.
- Shortened trial timelines – improved ability to use patient data for research purposes across Liverpool (e.g. ability to analyse patient population, trial feasibility etc.)
- Number of commercial trials - improved ability to analyse patient populations and other sophisticated analysis on patient data is likely to be attractive to industry and generate more interest in running trials.
- Population health outcomes – long term impact on improved health outcomes overall.

Sources: Liverpool City Region – Health Informatics Research Strategy; iLinks Informatics Transformation Strategy; and Driving a digital future – The Merseyside Digital Roadmap

3. Communications and marketing

LHP will ensure its partners have clarity over how LHP works, its priorities, objectives and their role in achieving these goals. Active, consistent and relevant communication, marketing and branding will be important in providing this clarity.

LHP will deliver a differentiated communications strategy and plan for members, NHS staff, academic staff, students, primary care, other health organisations and the general public.

Aims

- Provide clear messages on LHP's aims and target outcomes, and how LHP works: how it will support the system/members, what it will deliver, what the benefits are for all stakeholders.
- The communications and marketing priority will act as a forward thinking support function for LHP's other core activity areas including: data and informatics; unified R&D support service and clinical trials hub; workforce training and education; and grant and funding support.
- LHP will show it can deliver on its commitments by celebrating successes, but also being open and objective about difficulties – this will gain trust from partners and help gain their buy-in into LHP.
- LHP will be a gateway for external facing organisations and the public into the Liverpool system – this is through having a relevant and up to date website.

Approach

- LHP will be proactive in promoting its goals, activities and how stakeholders can support them; as well as co-ordinating internal communications amongst members.
- LHP will deploy specific, targeted and short communications through various media channels – face to face, paper based, online and social media. It will also aim to deploy more broadcast media where relevant as this is seen as an effective method of communication amongst some of LHP's target audiences.
- Through the CEO, Director of Operations and Communications Lead, proactively engage with senior figures within Liverpool's health, care and life sciences community to promote LHP's ambitions, influence the local agendas, and engage stakeholders in LHP's work.
- While much of the work will be done by the LHP team, all members should play an active part in promoting LHP's aims, work and progress. LHP will work together with members to ensure they are equipped to do this. Additionally, LHP will promote the work and efforts of its members by recognising and promoting their successes.
- Ensure that LHP is represented in the right forums', to realise opportunities for joint communications and marketing with members and wider partners. All communications and marketing concerning the delivery of shared objectives should be issued jointly and in a timely manner to ensure staff across the system, and other stakeholders, are both engaged and kept informed.
- The LHP communications team will work closely with core activities and clinical priority leads, to provide forward thinking support in identifying communication needs and delivering on both regular and ad-hoc communications / marketing requirements to the required audiences.

3. Communications and marketing (cont.)

Our priorities

- Employ a full-time strategic communications lead.
- Publish a short summary of LHP's new mission, goals and priorities – through the LHP newsletter and online.
- Face to face presentation to/engagement with all key members' boards, wider health partner boards, Liverpool City Council, and GPs - focused on LHP's role, partners, approach, initial priorities, and next steps for engagement, effectively a re-launch.
- Work with partners to ensure a strong and effective LHP presence at major relevant conferences and events, supported by an ongoing programme of communication and events.
- Develop and deliver focused communication strategy and plan that also champions LHP's strategic priorities, including: clinical priorities and the core activities of supporting data and informatics, unified R&D support service and clinical trials hub, workforce training and education, and grant and funding support.
- Ensure LHP is represented at relevant forums within member organisations: that the right messages are communicated and stakeholders are appropriately engaged.

Linked to outcomes

- Public/patient engagement – by increasing public/patient awareness of the benefits of research and conducting clinical trials. More patients/members of the public may also get more involved with the research agenda including clinical trials and data consent.
- Number of collaborations – improving the engagement and relationships amongst partners will encourage more research focused collaborations across Liverpool.
- Number of industry collaborations – improved relationships between members and more targeted communications to raise awareness of the successes in Liverpool is likely to attract industry to invest in Liverpool.

4. Grant and funding support

LHP will provide support to members in coordinating grant/funding bids and supporting the ability of LHP members to bid. LHP should have a mandate to catalyse partners to action on high priority bids, coordinate collaborative bids, challenge partners on quality and/or content in terms of its alignment with the defined clinical priorities, horizon scan, and inform members of new opportunities.

Aims

- Streamline funding/bid applications by providing members with standardised templates/paragraphs on certain aspects e.g. what LHP is and does, key activities occurring across the patch that will support bids (data, informatics, trial capabilities), description of Liverpool as a collaborative health, care and life sciences ecosystem etc.
- Work with members to identify bid opportunities that are likely to involve multiple partners to deliver research within LHP's clinical priority areas.
- Coordinate resources (both of members and LHP) input into (and in some cases, write) collaborative bids, with the expectation LHP will spend a significant amount of time on this activity in the next 1-2 years in particular.

Approach

- LHP will review best practice and work with members to create useful templates that will support members applications in the future.
- LHP will support members in the bid process by providing quality and standards assurance; supporting and challenging members to achieve a good standard of application as much as possible.
- LHP will encourage and lead members to proactively identify and deliver more collaborative projects/applications.
- LHP will manage and coordinate collaborative applications for grants or funds within its priority areas, and/or bids that are of strategic importance to Liverpool (e.g. NIHR applications), where this will add value.

Our priorities

- Develop the standards and templates to support members.
- Horizon scan for grant and funding opportunities over the next 1-2 years that LHP is likely to wish to support with members.
- Identify 2/3 exemplar funding / grant applications involving 3 or more members for LHP to coordinate and support, to test LHP's approach and build confidence amongst partners.
- Create a central knowledge base of good/approved application examples, and lessons learned/feedback from applications that have not been successful in the past. This should evolve over time into an LHP owned source of grant/funding best practice.

Linked to outcomes

- Increased number and value of funding/grants gained – improving the ability to apply for research funds/grants is likely to improve the efficiency and quality of submitting applications.
- Number of collaborations between members – improving support for funding applications may incentivise members to support and deliver more collaborative grant/funding applications.

5. Workforce training and education

LHP will work with the Innovation Agency and HEIs to continue to support academia and the NHS in proactively developing Liverpool's workforce (both current and of the future), particularly in LHP's clinical priority areas. There is currently limited coherence of how the research education strategy comes together between universities and the NHS Trusts. LHP will need to engage with all the relevant stakeholders to help build and embed a culture of research interest and activity; as well as ensuring that new and innovative research, innovations or best practice are quickly translated into standard practice in the NHS. The UoL Medical School will be a core player in developing this strategy, as well as the School of Nursing and Allied Health at LJMU and potentially Edge Hill University in the future.

Aim

- Develop a research education strategy for LHP that fully supports its clinical priorities and capitalises on Liverpool's strengths and brings together the universities and NHS. LHP will play a key role in seeking training and education initiatives that help to address the gaps or needs in the NHS that are aligned to LHP's clinical priorities.
- Disseminate new and innovative research more effectively and quickly into clinical practice.
- Facilitate effective two-way communication to promote what LHP can do to support professional training, and to seek regular input from NHS staff into future training.
- Embed a culture of research and knowledge of future innovations into the current training of future clinicians, nurses, health technicians etc. e.g. by making research interest a pre-requisite of hiring clinicians / nurses etc. into the area.
- Strategic aim to make Liverpool and its wider area more attractive for people to live and work; and making clinical careers more attractive through research interests and opportunities, and the ability to offer a more varied career path e.g. catering for research interests as standard part of clinical employment in Liverpool.

Approach

- LHP will conduct a needs / gap analysis of members' educational requirements within the clinical priority areas and develop a comprehensive education strategy with member HEIs. Within this, it needs to focus on:
  - Engaging with key stakeholders within the universities, NHS trusts and other members.
  - Understanding the educational/training needs of LHP members and where LHP may be able to add value. For example, LHP will act as a platform to support collaboration on initiatives involving multiple stakeholders, or in new areas where there is minimal or no existing relationship between stakeholders, or expanding existing successful work out more widely across Liverpool.
  - Identifying the required resources to coordinate the delivery of this work and provide support from both a LHP perspective, and from member organisations.
  - Becoming more agile, to identify and respond to new education funding opportunities i.e. submitting applications for funding in ad-hoc areas as they arise. These opportunities often arise quickly and require a timely response that involves many partners– and so require coordination and support on the response itself.
  - Working with the public sector on Liverpool and the wider regions workforce strategy, and connecting the pathways through education into the workplace.
  - Ensuring the student body is connected with the population heath needs and care economy

5. Workforce training and education (cont.)

- Identify education or training opportunities that Liverpool would like to trial and are related to translating new research areas or findings into practice. This will include LHP using its network and connections with all members, and across the NW region and nationally, to constantly horizon scan and assess new learning needs or opportunities for training/education.
- Co-ordinate and support the design and pilot delivery of new professional training and education / programmes with partners, specific to LHP's priority areas to test the need / value of the new training. In particular, supporting novel and innovative ways of engaging with busy professionals, not necessarily through traditional CPD formats such as workshops or classroom learning.
- LHP will coordinate new learning trials/pilots and education/training, gauge initial interest and feedback from members and wider staff, and work with HEIs or other learning providers to deliver.
- LHP will work closely with the Innovation Agency as a core partner for the adoption and spread of good practice.
- LHP may support delivery of new education and training through its networks, communities, and marketing/communications capability.

Priorities

- Conduct a needs / gap analysis of all members' educational/learning needs relating to LHP clinical priority areas.
- Use the gap analysis to co-develop a research education strategy between LHP, the universities, NHS Trusts and other members.
- Develop the appropriate standards and templates required for a collaborative funding applications related to education and training programmes between partner organisations.
- Identify a short list of education modules / training courses which can be trialled to the appropriate audience.
- Identify 2/3 exemplar funding opportunities between 3 or more organisations for LHP to coordinate the submission to test LHP's approach and build confidence amongst partners.
- Support the pilot of 2/3 education modules / training courses
- Submit joint funding opportunities within LHP's clinical priority areas with academia / NHS outside of Liverpool e.g. Manchester

Linked to outcomes

- Speed of innovation dissemination – improving the ability to disseminate new research and research innovations into clinical practice.
- Population health outcomes - long term impact on improved health outcomes overall.

6. Technology and innovation

LHP has a role to support technology and innovation augmentation within new and emerging health/care research to support the care system to prepare for the challenges of the future. This is particularly true of solutions to address the bigger, strategic problems of the future, e.g. workforce challenges, how can technology help to transform traditional models of care when there will not be enough doctors and nurses? LHP has a role to horizon-scan and involve new and emerging technologies within new health research for the benefit of population health, linked to the national Industrial Strategy, e.g. artificial intelligence, robotic surgery etc.

Aims

LHP will work closely with the Innovation Agency to support the use of new technologies within clinical research and developing new solutions to LHP's priority clinical challenges. Achieving this by supporting multidisciplinary collaboration within clinical research as much as possible e.g. collaboration with Engineering departments on the use of technologies such as artificial intelligence, 3D printing etc.

Approach

- LHP will need to develop an approach for technology and innovation augmentation aligned to the Government's Industrial Strategy with its partners HEIs, NHS organisations and the Innovation Agency. This may involve:
  - Regular horizon scanning for new technologies with the support of relevant departments within HEIs, with the ambition to purpose them for health and care – within the priority clinical areas, to support delivering better outcomes, and with the potential to deliver research studies on new technologies and their impact.
  - Involving different academic departments or teams in solving specific challenges related to the priority clinical areas or projects e.g. through a hackathon type event; and engaging regionally and nationally with other institutions on new ideas/innovations.
  - Strengthening relationships and partnerships with other disciplines, Faculties and academic departments across HEIs, in order to understand the full breadth of emerging technologies and innovations and work with new/other disciplines to develop the best technologies to address the future challenges faced by the care system.
  - Links to the workforce training and education function within LHP, as well as other agencies such as the Innovation Agency, and educators of the future care workforce more widely (e.g. Medical and Nursing schools) – to ensure the future workforce understands and is equipped to use new technologies.

Our priorities

- Develop LHP approach for technology and innovation augmentation with members – as described above
- Prioritise key areas, relevant to selected clinical priorities, that are likely to benefit the most from technology augmentation and set this challenge to partner departments/teams to identify new technologies that could be used within the clinical priorities workplan/projects.

Linked to outcomes

- Population health outcomes - long term impact on improved health outcomes overall.
- Impact of research and innovation on priority areas – more focused approach on priority areas
- Patients positively impacted – better technology and innovation will improve patient experiences

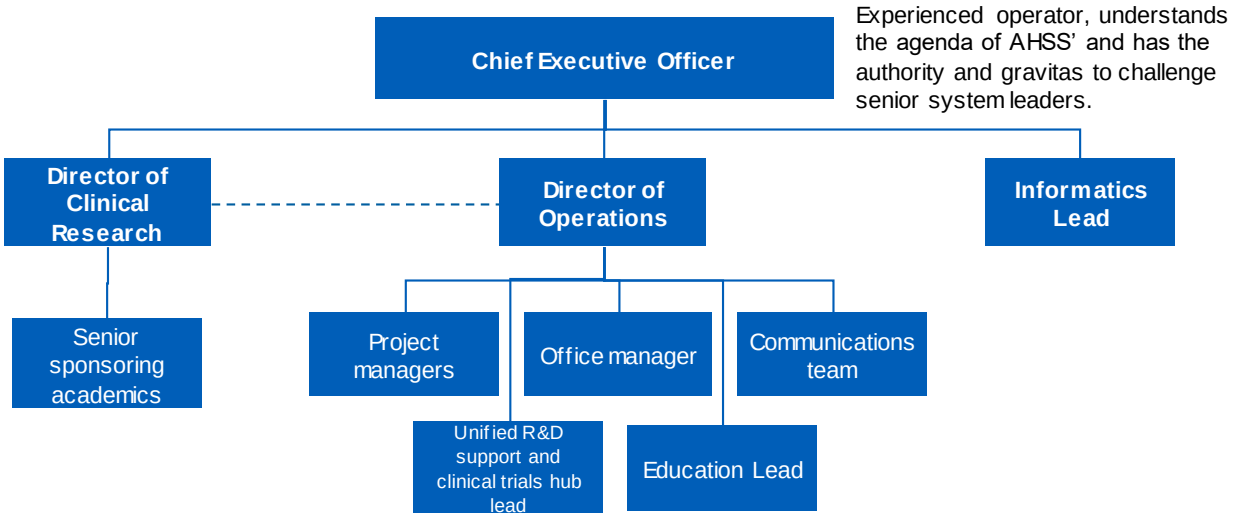
5

Team

Management structure

A new team structure and capabilities are suggested below to deliver on the plan set out. In addition, a new governance structure is proposed to support stronger grip over LHP's delivery, agile decision-making, and thorough engagement of both the NHS and research communities.

Below is the proposed management structure. Details of capabilities and roles required to deliver on the functions and plan are on the following pages. The structure may need to be refined further following initial debate at Board.



All core activities are led by CEO and Director of Operations, with explicit remit to lead those activities, supported by all other roles; with the exception of the Informatics Lead who will report directly into the CEO.

The Research Lead is a part-time, senior, Director-level role (as currently) who will oversee clinical research strategy and related projects. Some work alongside the Director of Operations will be necessary to help move projects forward, but this is also a strategic role reporting to the CEO to ensure that LHP's overall strategy is being implemented.

Further consideration needs to be given to the status of the education lead – this may well need to be a more senior post given the strategic nature of the agenda.

Capabilities

Roles	Skills and capabilities required	FTE estimate
Independent Chair	▪ Provides independent leadership and strategic vision to LHP. ▪ Acts as an ambassador and public face of LHP alongside the Chief Executive Officer. ▪ Holds the Supervisory Board and Chief Executive Officer to account for achieving the strategic objectives of the partnership. ▪ Chairs regular meetings between Board members efficiently and effectively, in an impartial and objective manner. ▪ Appraises the performance of the Board on an annual basis and ensures the right balance of skills, perspectives, and experience required to govern and lead LHP.	0.4
Chief Executive Officer	▪ System leader who provides vision and drive behind LHP. Is the ambassador and public face of LHP, representing LHP and Liverpool nationally and internationally. ▪ Politically aware, intellectually high calibre experienced operator, who understands and has experience of AHSS and/ or the NHS, with appropriate seniority to manage, challenge and drive forward working relationships between LHP member organisations and their senior leaders. Able to effect real cultural change, system collaboration, and build understanding between academia and NHS. ▪ Engages in the detailed running of LHP and interfaces with the NHS and HEIs with the support of the Director of Operations. Has some executive decision making powers to support delivery of agreed strategic objectives. Consults with the Executive and Supervisory Boards where required and appropriate.	1.0
Director of Operations	▪ Responsible for the day to day running of LHP and providing strategic support to the CEO. Maintains LHP's financial health and stability. Ensures the organisation's regulatory compliance. ▪ Leads all aspects of operational delivery of LHP. Responsible for the small core team. ▪ Ensures LHP activities align with set mission and strategy.	1.0 NHS band 9 equivalent
Director of Clinical Research	▪ Sets strategic direction for LHP clinical research activity, providing guidance for senior sponsoring clinical academics. ▪ Maintains strong relationships with all clinical academic leads, Medical Directors, and R&D Directors within member organisations across Liverpool. ▪ Accountable for delivery of key clinical projects.	0.2
Senior Sponsoring Clinical Academics	▪ Lead clinical research activity within each agreed priority clinical area, able to direct and coordinate research activity across the system with the support of project managers. Support the Director of Clinical Research to deliver on LHP's strategic clinical priorities. ▪ Provide direction to project managers and partners within their clinical areas on LHP activities. ▪ Maintain strong relationships within the NHS and local HEIs to understand new opportunities for collaboration and achieve LHP's strategic outcomes.	0.3 per priority clinical area

Capabilities (cont.)

Roles	Skills and capabilities required	FTE estimate
Project Managers	▪ Responsible for delivery of LHP's define core strategic and clinical projects, in support of agreed strategy. ▪ Key activities may include: coordinating and managing key projects, supporting collaborative bid applications, identifying business development opportunities, supporting education programme delivery etc. ▪ Work closely with Director of Operations, Director of Research and Senior Sponsoring Clinical Academics to deliver projects. Coordinate activity with wider system leaders and managers within LHP partner organisations to delivery projects.	Core pool of 2-5 FTEs University band 8 equivalent
Strategic Communications Lead	▪ Leading and setting LHP's communications and engagement strategy. ▪ Responsible for delivering clear, targeted messages to system leaders and wider staff in academia, the NHS, patients and the wider public – to build recognition of LHP, its aims, and what it will deliver.	1.0 NHS band 8 equivalent
Communications Officer [TBC]	▪ Manage and deliver communications and engagement activity, working closely with the Strategic Communications Lead.	0.5 – 1.0 NHS band 6 equivalent
Office Manager	▪ Performing general office administrative activities. arranging travel, meetings and appointments; recording minutes to meetings as required; receiving and screening incoming office enquiries (telephone, mail, visitors)..	1.0
Health Economist and/or Public Health Lead	▪ Responsible for capture and monitoring of LHP outcomes framework, and delivery against KPIs; translating this into key messages for stakeholders, and working with Communications leads to ensure this is shared with members. ▪ Ability to interact with the health and social care system to coordinate and harness the capabilities of LHP members to strategically address local public health needs. Engaging regularly with Public Health leads within the system, understanding where gaps are and feeding this into LHP; and communicating the art of the possible from LHP members back to the system. ▪ It is expected this resources will be bought in or acquired, the costs are not currently know at this stage, therefore the FTE and costs are an estimate based on an employed individual.	Support to be commissioned directly as and when required
Education & Workforce Dev't Lead	▪ Leading and coordinating on new education and workforce development programmes with HEIs, based on emerging needs from the NHS workforce aligned to LHP strategic priorities (e.g. data and informatics, as well as clinical areas). Potentially supported by a part time academic lead TBC.	1.0
Informatics Lead	▪ Leading delivery on delivery of specific data and informatics projects for LHP which support key health research requirements for Liverpool, and aligned to the local Digital Programme (part of the STP). Requires both programme management and strategic influencing skills at system level.	1.0 NHS band 8d / 9 equivalent
Informatics project manager [TBC]	▪ Support the day to day delivery of the specific data and informatics projects for LHP.	1.0 NHS band 6 equivalent

Capabilities (cont.)

Roles	Skills and capabilities required	FTE estimate
Unified R&D Support Service and Clinical Trials Hub Lead	▪ Lead the operational delivery of the Research Hub. Requires both programme management and strategic influencing skills at system level.	1.0 Equivalent to NHS band 8b
Unified R&D Support Service and Clinical Trials Hub Project Manager [TBC]	▪ Provide day to day support for the operational delivery of the Research Hub (including co-ordinating streamlined processes across Liverpool, assistance to R&D Departments for local delivery of research, project management support for the Research Hub, to work with Research infrastructure to provide seamless and interconnected service to researchers).	1.0 NHS band 7 equivalent
Unified R&D Support Service and Clinical Trials Hub Support	▪ Existing JRO and IGO staff (NHS contracts officer, JRO facilitator and IGO manager) to support the delivery of the Research Hub, to provide continuity for the transition of the exiting JRO/IGO model into the Research Hub.	3.0
Administrator (Year 2)	▪ Administrative support for the wider team from year 2 onwards	1.0 NHS band 4 equivalent

6

Membership model

Membership model

There is broad consensus amongst members that the current membership and fee model is not fit for purpose. Total investment in the system needs to be much larger than current levels to achieve the height of ambition set out by members, over a sustained period of time. Clarity is required for members on the benefits of continuing membership of LHP, and the possibilities of membership benefits at different levels.

Principles of a new membership model

Within a new membership model, there is a need to recognise:

- The importance of membership from all organisations in order to deliver on LHP's ambition – requiring collaboration from all organisations on all strategic areas, and which cannot be delivered by the biggest organisations alone.
- The need to clearly articulate to all organisations both the tangible and less tangible benefits they will gain from LHP membership at each level – and this should be explicitly linked to LHP's outcomes and monitoring progress against these. Please see the following pages for a description of benefits.
- The need to define differential levels of membership and contribution to LHP, based on the relative size of organisations, their influence on the research agenda, their potential gain from LHP.
- Members can shift between levels of membership, and will be encouraged to upgrade based on LHP's ability to demonstrate a future return on investment for members, and members' growing confidence in LHP's ability to deliver over time.
- The need for members to commit to an initial funding period of 3-5 years to allow enough time for the refocused LHP to demonstrate real change, acknowledging delivery of 'early wins' via some highlighted projects with shorter timelines.
- Levels of funding contribution do not necessarily translate to proportion or areas of research that will be commissioned, but will be pooled into LHP to fund the core activities, strategic projects, and prioritised clinical areas that have been agreed within LHP's strategy and business plan – reinforcing members' commitment to delivering something greater than the sum of their parts vis LHP. This plan is to be renewed on a yearly basis.
- Contributions are somehow linked to ability to pay which is related to both the size of the organisation and its financial status, as well as significance of likely benefit.
- Membership contributions do not equate to voting power. All members will retain one vote per member within tiers 1 to 3 to avoid dominance of individual organisational agendas.

The suggested tiered membership model and proposed benefits to all members organisations are shown on the following pages.

Membership model (cont.)

Suggested tiered membership model

In the following table, we have set out a proposed membership structure, suggested contributions and benefits at each level, and a suggestion of member organisations at each level. The initial ask of members is to commit for 3-5 years on this basis to allow the new ways of working and benefits from this to bed in. Membership levels may also shift over time given anticipated changes to Liverpool's NHS and healthcare landscape.

Level	Suggested members	Criteria	Contribution
Tier 1	▪ UoL ▪ Royal ▪ Aintree ▪ Alder Hey	▪ Large scale regional footprint within Liverpool and wider region (staff, revenue, patients, students etc.) ▪ Significant level of influence on Liverpool's research agenda and key decision-maker ▪ Broad coverage of Liverpool population and population health needs ▪ Actively promotes LHP's mission, objectives and collaboration	▪ Membership contribution of up to c.£0.5m (?) = perhaps £250K per org in year 1 ▪ Investment into world class academics / CIs within priority areas ▪ Contribution of clinician PA time dedicated to research ▪ Investment in clinical trials nurses to support new research in priority areas.
Tier 2	▪ Women's Hospital ▪ Clatterbridge ▪ LJMU ▪ LSTM ▪ LHCH ▪ Mersey Care ▪ Walton Centre	▪ Medium to large scale footprint within Liverpool and wider region ▪ High level of influence on Liverpool's research agenda ▪ Coverage of key areas of Liverpool's population health needs ▪ Actively promotes LHP's mission, objectives and collaboration.	▪ Membership contribution of c.£100k ▪ Investment into world class academics / CIs within priority areas ▪ Contribution of PAs dedicated to research ▪ Investment in clinical trials nurses to support new research in priority areas.
Tier 3	▪ CCG ▪ Liverpool City Council ▪ GP Federation	▪ Commitment to support delivery of LHP's strategic priorities ▪ Promotes LHP's mission, objectives and collaboration	▪ Membership contribution of c.£50k
Tier 4 [TBC]	▪ Individual researchers ▪ Organisations outside of Liverpool?	▪ Not an organisation that is part of the Liverpool ecosystem but interested in accessing the system, its capabilities and benefits	▪ Ad-hoc fees for access

Benefits of membership

All members are likely to accrue the benefits listed below, and we expect these are likely to be of a larger quantum for members within higher tiers. Benefits will come in the form of wider system and population health improvements, as well as more specific benefits to individual organisations.

System benefits

- One of LHP's core aims is to positively impact local population health outcomes. Improving focus of collaborative research activity on local health issues is likely to deliver this outcome. In the long term LHP should shift to recognising wider outcomes beyond health that are representative of broader wellbeing improvements (e.g. fitness for work, deprivation measures, broad early years outcomes for children, violence in the home etc.), and working more closely with primary care, social care and other sectors such as police and education to do so.

Membership model (cont.)

Benefits of membership (cont.)

System benefits (cont.)

- Liverpool is likely to see a direct economic benefit to investing more effectively in research. Recent evidence shows that there is a 17 per cent annual return to the UK economy indefinitely for every £1 invested in medical research; which rises to between 24 to 28 per cent return when including the monetised benefits of a healthier population[1]. Other estimates have shown between 7 to 39 per cent per year return in perpetuity for investment in public mental health and CVD research respectively[2].
- Direct patient benefits – patients of Liverpool's NHS are likely to achieve better individual health outcomes through increased access to research and clinical trials, via more research-engaged frontline staff who are able to articulate the benefits to patients. This emphasises the importance of LHP's role to promote the culture of research and staff engagement.
- Potential to improve intelligent commissioning capabilities based on improved data and informatics to inform this; which in turn is likely to impact population health outcomes.
- Improved ability to attract and retain staff across the local care economy as a result of creating a more research-focused culture: through investing in more research time within clinical roles, embedding research time into roles for new clinical appointments, and investing in leading academics and investigators to lead and support this research.

Direct benefits to organisations

All members will benefit from LHP's core activities and focus on clinical projects, these include the following:

- Tier 1 organisations are likely to benefit from significant funding grants from the NIHR and will have a direct interest in ensuring current NIHR funding is renewed (e.g. for CRFs). All members will benefit from additional NIHR funding into the Liverpool system through access to better research facilities, additional research opportunities, and additional opportunities for NHS patients to access research and trial opportunities.
- Access to capabilities and direct benefits from LHP core activities, including the unified R&D support service, access to improved data and informatics capabilities (including for research purposes) across the system, better access to patients, and improving alignment between workforce training and development, research and local strategic workforce needs.
- Greater opportunities for funding for research projects and access to support/coordination for large, collaborative grant/funding applications.
- Access to dedicated resource to support research projects in LHP core clinical areas, based on prioritised focus areas and access to collaborative projects that may otherwise not have happened/been brokered.
- Bringing teaching and clinical staff closer together through better joint working, collaborations and possibly appointments. Also the potential to attract staff who will positively impact on teaching standards.

Outcomes aligned to each core activity area are shown clearly in section 4 (page 27) and wider benefits will be measured through the outcomes framework (see section 2, page 17). Members should expect LHP to monitor progress and regularly report on these to all members.

The outcomes framework will include a number of process indicators to support measurement of progress; however it will not be realistic to expect demonstration of real improvements or outcomes before 2-3 years. Hence an initial membership commitment of at least 3 years to LHP's proposals set out in this plan.

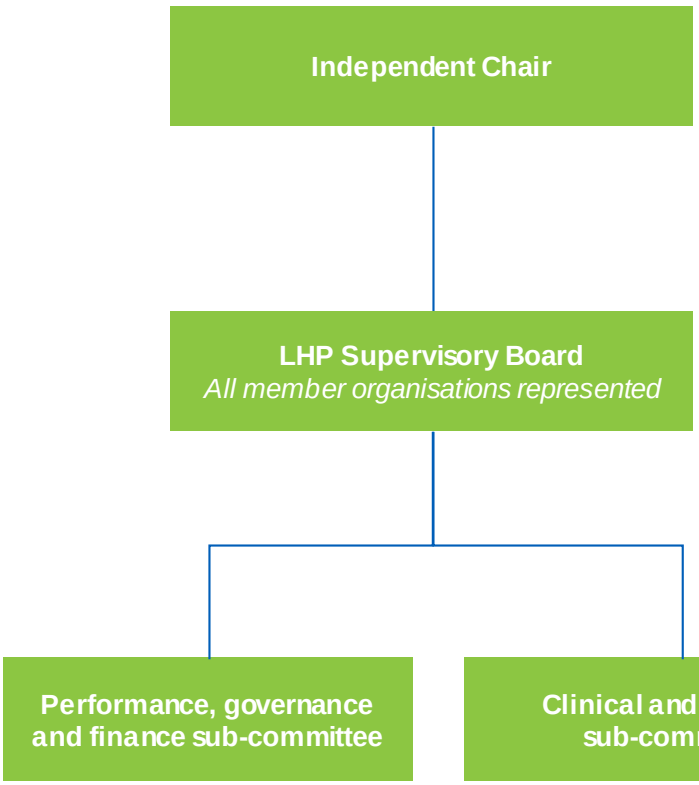
Notes:
1. Quantifying the economic impact of government and charity funding of medical research on private research and development funding in the United Kingdom, Sussex et al. BMC Medicine 201614:32 *http://bmcmedicine.biomedcentral.com/articles/10.1186/s12916-016-0564-z*
2. What's it worth? Estimating the economic benefits from medical research in the UK, Health Economics Research Group, Office of Health Economics, RAND Europe. Medical Research. UK Evaluation Forum; 2008.

7

Governance

Governance structure

Below we have set out the suggested governance structure for LHP. This needs to be supported by terms of reference that clearly set out powers, decision-making authorities, scheme of delegated powers and escalation processes.



Interim chair recently appointed. Successor to be sought - alongside recruitment of CEO: needs to be an experienced clinical academic, preferably independent from member organisations, preferably with experience of successful academic health partnership(s) and credible with the centre, prepared to take accountability for the development of the system in Liverpool.

Each organisation to provide a Board member – either Chair, CEO or MD. Supervisory role to agree direction of strategy, for escalation of issues/risks, and for significant decisions. Meets monthly.

Core team of ?4-5 Board members whose function is to monitor performance on the business plan and hold the CEO and the team to account for LHP performance. Meets monthly. CEO will be a member of this committee.

Brings together academics and NHS clinicians to help connect research and healthcare delivery, creating a dialogue and community.

Corporate structures

LHP is currently a private company limited by guarantee without share capital and is currently being hosted by the University of Liverpool. The table below provides a comparison of LHP with some of the leading AHSCs, so it can make a decision as to its potential corporate structure in the future.

Where does LHP stand compared to leading AHSCs?

AHSC	Company Name	Company Type	Incorporation Date	Comments
Cambridge University Health Partners	Cambridge University Health Partners	Private Limited Company by guarantee without share capital use of 'Limited' exemption.	2009	▪ Employment of seconded staff through host member ▪ Host member for CUHP is Cambridge University Hospital ▪ Membership/ subscription fees.
King's Health Partners	King's Health Partners Limited	Private company limited by guarantee without share capital.	2010	▪ N/A
University College London Partners	UCL Partners Limited	Private company limited by guarantee without share capital.	2009	▪ Employment of permanent and seconded staff
Liverpool Health Partners	Liverpool Health Partners Limited	Private company limited by guarantee without share capital.	2012	▪ Employment of permanent and seconded staff ▪ Membership/ subscription fees.

- The three AHSCs and LHP currently exist as "private companies limited by guarantee without share capital".
- Instead of shareholders, a company limited by guarantee has its members act as guarantors. Therefore, in the event of a company winding up, the members liability is limited to a nominal amount they all have agreed to pay on incorporation e.g. £1. This type of company can increase an organisations credibility as it adds transparency to their operations.
- Companies of this type can exist in 2 forms. Either as a charity company, where its surplus is dedicated to charitable causes or a not for profit company e.g. associations, clubs.

VAT implications

As a limited company LHP currently sit outside of the NHS VAT Divisional Registration (which allows supplies between NHS bodies within the Division to be disregarded). The following areas have been identified for LHP to further investigate.

Areas for further investigation	Potential VAT implications
1. Continue with the current structure, with the aim to employ as many staff permanently	▪ LHP will not have to VAT on staff who are permanently employed. ▪ Any staff seconded will incur VAT.
2. Cost Sharing Group (CSG) Exemption	▪ This is a complex HMRC approved arrangement where each organisation would be 'members' of the CSG and would supply their staff into and from the CSG on a VAT exempt basis. ▪ This will require a more defined scope due to the technical complexity of the arrangement and will require HMRC clearance.
3. An NHS organisation hosts LHP	▪ Supplies of staff remain NHS Trust to NHS Trust which would remain as disregarded or outside the scope for VAT purposes. ▪ If LHP is undertaking research or clinical income generation in its own name it may have a requirement to be treated as a separate entity for VAT purposes i.e. VAT chargeable/accountable on secondments.
4. Joint working agreement	▪ Joint contract of employment where staff could equally work for LHP as well as host trust/academic institution. This would imply VAT charges will be disregarded. ▪ Again this is a complex model and is not favourable within employment law and is rarely used.
5. Memorandum of understanding	▪ Memorandum of understanding – a HMRC approved treatment where clinicians and academic staff may be allowed VAT exemption. ▪ It usually doesn't apply to a private company. ▪ There would need to be an agreement with HMRC.

NB. The above options do not constitute advice, but potential ideas for further investigation. LHP has now commissioned a full tax options analysis with the objective of reducing the level of unrecoverable VAT currently paid. This is a complex area.

8

Funding

Current income and expenditure

Current income and expenditure: do nothing scenario*

LHP is projected to make an annual deficit of £247k in FY2017/18. If LHP continues to operate as it is with the current funding model (do nothing) it will run of out cash reserves in FY2019/20.

It is expected that two members will leave the current membership arrangement: Mersey Care from FY 2018/19; and Liverpool CCG from FY2019/20.

Cashflow	Cashflow Type	Cost 2017/2018 (£'000)	Cost 2018/2019 (£'000)	Cost 2019/2020 (£'000)	Cost 2020/2021 (£'000)	Cost 2021/2022 (£'000)
Income	Subscription Fees	920	840	760	760	760
Income	Sponsorship		40		40	
Subtotal		**920**	**880**	**760**	**800**	**760**
Expense	Staff Costs	713	731.9	751.1	770.7	791
Expense	Non Staff Costs	162.2	210.7	160.8	210.8	160.9
Expense	Other Costs	157	172	80	80	80
Expense	VAT	134.6	126	128.9	131.8	135
Subtotal		**1166.8**	**676**	**634**	**2,001**	
Surplus / (Deficit)		**(246.8)**	**(360.6)**	**(360.8)**	**(393.3)**	**(406.9)**
Reserves b/f @ 01/04/2017		**920**	**673.2**	**312.6**	**(48.2)**	**(441.5)**
Reserves		**673.2**	**312.6**	**(48.2)**	**(441.5)**	**(848.4)**

- Subscription fees income include contributions from 3 HEI's (UoL, LSTM and LJMU) and 9 NHS trusts (Aintree, Alder Hey, Clatterbridge, Royal Liverpool, Liverpool Women's, The Walton, Liverpool Heart and Chest, Merseycare and Liverpool CCG).
- It is expected both Merseycare and Liverpool CCG have given notice from 2018/2019 onwards.
- Sponsorship constitutes income from the "Health is wealth" conferences.
- Staff costs expenses include salaries for the chair, director of operations, strategic project manager, education programme manager, administrator, marketing officer/communications manager, post doc researchers, clinical academic programme directors, joint research office and industry gateway office staff.
- Non staff costs expenses include travel and subsistence, training and development, IT/office, consultancy/legal/professional, conference attendance, LHP/JRO hosted events, marketing and advertising, rent/rates and service charges, audit, bank charges, service level agreements and miscellaneous.
- Other costs expenses include project costs and staff from the Liverpool Health Genomics Laboratory (LHGL, part of UoL's centre for genomic research).
- VAT expenses include any instances of 20% VAT charged for staff, non staff or other cost expenses.

* Costs have been based on LHP's five year budget option 3.

Source: LHP – 5Yearbudgetsdraft.xls

Future staff cost estimates

Outlined below are costs related to the proposed staffing model for LHP. These are based on estimates and assumptions at the current time, detailed in the following pages. As planning continues with stakeholders, LHP may find existing skills within the system that can support LHP deliver in kind or otherwise, and/or find further gaps that need to be filled.

It has been assumed a full complement of project management support for its clinical research priorities and the strategic leads are supported by the appropriate administration and project co-ordinators.

The phasing of the costs are expected to change based on when staff are appointed and which activities are prioritised for delivery. The detailed costs for the proposed staffing model are documented on the following pages.

Where there is already an equivalent role in the current LHP structure, cost estimates are based on current costs. Where capability is required beyond the current LHP structure, estimates have been gathered for the required skill sets using the appropriate sources. All costs include estimates for national insurance, pensions and employer costs (assumed as a 20% uplift). It has also been assumed that LHP will have to pay VAT on all staff costs, as per the current funding model.

The below table provides a summary of the staffing cost to LHP over a three year period: -

Role/investment type	Cost 2018/2019 (£'000)	Cost 2019/2020 (£'000)	Cost 2020/2021 (£'000)	Total 3 Year Cost (£'000)
Estimated staff costs	1,702	1,758	1,758	5,218
Service costs	195	175	175	545

Future staff cost estimates (cont.)

Estimated staff costs

Role/investment type	FTE	Cost 2018/2019 (£'000)	Cost 2019/2020 (£'000)	Cost 2020/2021 (£'000)	Total 3 Year Cost (£'000)
Independent Chair+	0.4	48	48	48	145
Chief Executive Officer	1	186	186	186	558
Director of Clinical Research+	0.4	65	65	65	196
Director of Operations *(NHS band 9)*	1	108	108	108	324
Senior Sponsoring Clinical Academics+	1.2	122	122	122	367
Project Managers (*university band 8*)	5	303	303	303	909
Communications Strategic Lead (*NHS band 8*)	1	63	63	63	189
Communications administrator (*NHS band 6*)	1	37	37	37	111
Office Manager+	1	41	41	41	122
Administration support *(NHS band 4)*	1	0	22	22	43
Health Economist and Public Health support* (*NHS band 8*)	0.4	0	25	25	50
Education & Workforce Dev't Lead+	1	65	65	65	196
Informatics Lead – (*NHS band 9*)	1	108	108	108	324
Informatics Project Officer (NHS band 6)	1	37	37	37	112
Unified R&D Support Service and Clinical Trials Hub Lead (*NHS band 8*)	1	68	68	68	205
Unified R&D Support Service and Clinical Trials Hub Project Manager (*NHS band 7*)	1	49	49	49	148
Unified R&D Support Service and Clinical Trials Hub Support+	3	116	116	116	348
Subtotal		**1,418**	**1,465**	**1,465**	**4,348**
VAT		284	293	293	870
Total		**1,702**	**1,758**	**1,758**	**5,218**

The phasing of the costs are expected to change based on when staff are appointed and which activities are prioritised for delivery.

Notes:
* It has been assumed the Health Economist and Public Health Lead will join in the second year, when the clinical research projects are in delivery. Additionally, it is expected LHP will buy-in or acquire this support, salary estimates have been used to reflect this, however further investigation will need to take place.
+ Estimates are based on current resourcing costs.

Assumptions for team costs

The following assumptions have been used to quantify the estimated costs of LHP's team structure.

Job role	Salary source
Independent Chair	Based on current costs of Chairman
Chief Executive Officer	Based on 2016/2017 salary of Alder Hey CEO
Director of Operations	Based on average salary of an NHS Director of Operations band 9
Director of Clinical Research	Based on current Director of Research
Senior Sponsoring Clinical Academics	Based on 2016/2017 salary of Alder Hey Medical Director
Project Managers	Based on current costs of Strategic Project Manager, university band 8.
Communications Strategic Lead	Based on current costs of Communications Manager / Marketing Officer, NHS band 8
Communications administrator	Based on average band 6 salary from an NHS JD for Communications and Marketing Lead
Office Manager	Based on current costs of Office Manager
Health Economist and Public Health Lead*	Based on average band 8b salary from an NHS JD for Economist / Economic Advisor
Education & Workforce Dev't Lead	Based on current costs of Education Programme Manager
Informatics Lead	Based on average band 8d salary from an NHS JD for Chief Information Officer
Informatics Project Officer	Based on average band 6 salary from an NHS JD for Research Coordinator – Digital Research
Unified R&D Support Service and Clinical Trials Hub Lead	Based on NHS Clinical Research Operations Manager band 8b
Unified R&D Support Service and Clinical Trials Hub Project Manager	Based on NHS Research Delivery Manager band 7
Unified R&D Support Service and Clinical Trials Hub Support	Based on current costs of LHP / NHS – Contracts Officer, JRO facilitator and IGO manager
Administration Support	Based on NHS Administrator band 4

Notes:
* It has been assumed the Health Economist and Public Health Lead will join in the second year, when the clinical research projects are in delivery. Additionally, it is expected LHP will buy-in or acquire this support, salary estimates have been used to reflect this, however further investigation will need to take place.

Future service costs

Future: Service costs

The below provides an initial estimate into the additional service costs which LHP is likely to spend.

Communications, marketing and branding and general office and travel costs have been based on KPMG estimates. All other costs are based on those currently incurred by LHP.

Activity	Cost 2018/2019 (£'000)	Cost 2019/2020 (£'000)	Cost 2020/2021 (£'000)	Total 3 Year Cost (£'000)
Communications, marketing and branding	40	30	30	100
General office and travel costs	40	30	30	100
Rent, Rates & Service Charges	70	70	70	210
Consultancy, Legal & Professional	10	10	10	30
Training & Development	8	8	8	24
Audit	9	9	9	27
Service Level Agreement	18	18	18	54
Total	**195**	**175**	**175**	**545**

9

Implementation plan

The next 24 months

A detailed plan to support implementation of the core activities is shown below and on the following pages. Priority activities are highlighted which are critical to be initiated by the first quarter of 2018. Some priorities and activities still have details to be agreed and fleshed out with members, but these are intended as suggested activities to support the proposals as they currently stand.

Workstream		Activity	2017	2018				2019			
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Team & Governance	1	Agree LHP strategy and business plan									
	2	Approve recruitment of CEO, and Independent Chair, devise job specifications and appoint search firm									
	3	Go to market for CEO and Independent Chair, receive applications									
	4	CEO and Independent Chair candidates shortlisted and interviewed									
	5	CEO and Independent Chair appointed (by 31 March)									
	6	Agreement on shape and size of LHP core team, roles & job specs									
	7	Implement any restructuring resulting from new core team structure above, including HR procedures. Begin and complete the recruitment to all remaining roles (including Research Lead)									
	8	Commission options analysis for LHP's corporate structure and related tax analysis									
	9	Implement new corporate structure									
	10	Further development and final agreement of new membership model, to begin 1 April 2018									
Clinical Priorities	11	Finalise the 3-4 clinical priorities for LHP									
	12	Appoint/ reconfirm clinical academic programme leads for each priority area									
	13	Clinical academic programme leads to prioritise and shortlist the projects to which LHP will provide dedicated project management support (likely to be few initially)									
	14	Clearly define and produce an outline scope (PID) for each clinical research project to be supported, which will include outline cost benefit analysis									
	15	Produce a detailed implementation document (POD) for each of the shorlisted projects, including a detailed plan, required costs, resources, anticipated benefits and return on investment/ KPIs									
	16	Lead a cancer strategy on behalf of the wider Liverpool region									
	17	Delivery of the shortlisted projects and monitoring outcomes									
Core activities: Unified R&D Support Service and Clinical Trials Hub	18	Hold stakeholder discussions to define the vision for a unified research office to be co-ordinated by LHP, taking account of UoL emerging views and the recent draft JRO options appraisal									
	19	Unified research support service: as a baseline, create a detailed map of all R&D assets across Liverpool (HEIs and NHS); and co-ordinate the co-design of a blueprint to bring these all together into a (virtual) 'hub' along NRA guidelines. This will need to be co-designed with all LHP members and wider partners.									
	20	Design a target operating model and a resulting business case for the unified research office on the basis of the work above, including agreement on standardised processes, governance, admin and personnel									
	21	LHP Board and stakeholders to approve the model, including required investment and governance procedures									
	22	Implement the model - set up unified research support service on the basis of the above and move to operations									
	23	Review of clinical trials capability across Liverpool (commissioned by UoL, due to report in January 2018)									
	24	On the basis of the above, design a target operating model and a resulting business case for a more co-ordinated trials capability including agreement on standardised processes, governance, admin, personnel and collaboration agreements									
	25	LHP Board and stakeholders to approve the model, including required investment and governance procedures									
	26	Implement the model - set up new clinical trials hub/ protocols									

Legend: Priority activities (90 days); Activities to be conducted after first 90 days

LIVERPOOL HEALTH PARTNERS

The next 24 months (cont.)

Workstream		Activity	2017	2018				2019			
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Core activities: Data and informatics	27	Recruit or second a director of informatics and a project coordination resource. Director needs to be a visionary who can translate technology potential into a practical vision that NHS and other stakeholders can understand									
	28	Detailed workplan development, working with strategic partners across the system									
	29	Board and system agreement to begin workplan delivery									
	30	Engage with the CCG on a more regular basis to agree on a joint direction or strategy for health research in the data/informatics space. LHP's role in this will be to provide a conduit between NHS providers, researchers, and the CCG to agree a collective way forward – including research priorities and identifying gaps in infrastructure.									
	31	Undertake a programme of work to engage the GP Federation and the Local Medical Committee									
	32	Develop a detailed health research informatics implementation plan that LHP will own and manage; aligned to delivery ongoing in the wider system									
	33	Identify and agree the best model for data sharing taking into account the Merseyside digital roadmap framework and keeping with national governance standards.									
	34	Develop and deliver a data-sharing consent programme/campaign, aimed at the public and frontline staff. This will include describing the benefits of data use for research and identify uses that are acceptable to the people in the Liverpool City Region.									
Core activities: Communications and marketing	35	Recruit a full time senior Communications Lead and assistant									
	36	Devise and run a communications campaign for the re-boot of LHP - key messages, mission statement and how this will be achieved. To be achieved largely through redeisgn of website and social media campaigns, with more information being made available as the plan develops and appointments are made.									
	37	Face to face presentation to all key partner boards, wider health partner boards, Liverpool City Council, and GP's focused on LHP's role, partners, approach, initial priorities, and next steps for engagement – effectively a re-launch..									
	38	Develop and deliver focused communication strategies related to LHP's strategic priorities, including in particular, data and informatics, research and trials hub, translation into practice and grant and funding support.									
Core activities: Grant and funding support	39	Develop the standards and templates required for a collaborative grant / funding application between partner organisations.									
	40	Develop a framework which sets out the eligibility criteria for researchers wanting financial support to undertake a specific piece of research.									
	41	Set out a clearly defined application process for potential researchers wanting to access the 'LHP fund'.									
	42	Identify 2/3 exemplar funding / grant applications involving 3 or more members for LHP to coordinate and support, to test LHP's approach and build confidence amongst partners.									

Legend: Priority activities (90 days); Activities to be conducted after first 90 days

The next 24 months (cont.)

Workstream		Activity	2017	2018				2019			
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Core activities: Workforce training and education	43	LHP Board members to consider and decide on the need for a committed senior clinical academic to carry out the work shown below									
	44	Conduct a needs / gap analysis of all LHP members' educational requirements relating to its clinical priority areas – this will require engagement with academic and NHS organisations.									
	45	Develop the appropriate standards and templates required for a collaborative funding applications related to education and training programmes between partner organisations.									
	46	Identify a short list of education modules / training courses which can be trialled to the appropriate audience.									
	47	Identify 2/3 exemplar funding opportunities between 3 or more organisations for LHP to coordinate the submission to test LHP's approach and build confidence amongst partners.									
	48	Support the pilot of 2/3 education modules / training courses									
Core activities: Technology and innovation augmentation	49	Co-develop approach to technology and innovation augmentation along with members									
	50	Develop and agree delivery plan and any investment (including staffing) requirements									

Legend: Priority activities (90 days); Activities to be conducted after first 90 days

Programme risks

There are a number of risks to delivery that LHP will need to track and manage.

Risk	Impact	Mitigation
Lack of investment in CIs and PIs in chosen areas	Inability to build up research critical mass in selected areas which will have a knock on impact on future ability to secure NIHR funding (not just BRC but more widely).	There must be alignment between LHP clinical strategy and investment and clinical research strategy decisions by the UoL.
Failure to agree membership model before 1 April 2018	LHP may lose members and/or be unable to secure funds to continue operations.	Board members must commit to agreeing a new membership model and individual organisations committing to this by 31 March 2018.
Failure to adequately canvass organisations' leadership to agree on the strategy and business plan	Failure to approve the new strategy and business plan will lead to uncertainty about LHP's future and possible dissolution.	LHP continuing to engage system leadership following approval of this document, during further iterations and in more detailed further development of plans. System leadership must be brought in at all levels.
Failure to deliver at pace required to demonstrate progress and build confidence	Members get frustrated by lack of demonstrable progress against outcomes and their investment, and reconsider their commitment.	Drive pace through a clear, prioritised plan for delivery, and ensure the right staff are leading delivery. Outcomes must be set, baselined and monitored.
Failure to adequately resource delivery plan	LHP team unable to drive delivery at pace, and LHP unable to demonstrate progress to members.	Ensure required capabilities are clearly defined, prioritised by importance and criticality to delivery plan, and recruited for in that order.

Critical success factors

There is a consensus across the system on the need for an entity such as LHP to exist, and agreement on the imperative to get this right for Liverpool in the form of LHP. LHP members now need to review the new LHP strategy and business plan on its own merits, support iteration to get to a final and agreed plan, and commit to individual members' roles within this. In order to succeed, LHP and members will need to:

- **Demonstrate upfront commitment** – We recognise that LHP has not been as successful or delivered on what members may have hoped in the past. This document should represent a new era in which LHP goals, outcomes, priorities and activities are clearly defined; and the previous failings of LHP are not used as reasons not to commit. This will require a leap of faith from members initially, but tangible progress and benefits should accrue within the first year.
- **Have strong leadership** – To keep LHP focused, and relentlessly drive forward progress in order to demonstrate benefits and tangible outcomes to members and the public.
- **Rapidly build trusted working relationships** – To support each other and LHP in the delivery of this plan, and to accelerate cultivation of a collaborative environment for research. This cultural shift can take a long time to build, and members will need to work concertedly on building these relationships in the first instance in order to achieve any noticeable changes.
- **Have strong governance** – LHP's key lever across the system will be influence; emphasising the importance of strong leadership. Strong grip on governance will be needed to ensure LHP members and staff adhere to the strategy and decisions made, and are consistent in their actions and messages.

Appendix

Supporting documentation

Appendix

Longlist of clinical projects

Below is an illustrative longlist of potential projects in the key clinical areas that LHP could support, many of which overlap across priority areas. This is not exhaustive and more work is required to allow all stakeholders to contribute. A transparent prioritisation criteria and process is needed to select a small number of projects for LHP to support initially. This should be based on projects' strategic importance, academic/research prominence currently and in future strategy (e.g. is it an area of investment for the UoL?), owners in top tiers of LHP membership model, potential benefits, costs, and timeframes etc. It should be axiomatic that any project listed here should be a strategic project for the relevant member organisation(s) and adopted as such by their Board.

Project	Description	Owner
1 Starting Well: Maternal, Children and Young People's Health		
Improving perinatal outcomes	▪ Improving population health within the community e.g. substance misuse (alcohol, smoking and drugs)	LWH (TBC); Atif Rahman, UoL
Supporting women with in-utero babies who have severe life-limiting diagnoses	▪ Women whose babies are diagnosed in-utero with a severe life limiting or incompatible with life diagnosis. ▪ Understand their needs. ▪ Explore what palliative care services could be developed.	Professor Valerie Fleming, LJMU
Delivering babies in the best condition and preventing pre-term birth	▪ Influencing women at the pre-pregnancy stage is difficult – supporting women in having better interaction with primary care and nursing staff associated with GP practices develop more impactful outcomes.	LWH
Exploring the cultural normalities in pregnancy and the early years.	▪ In particular, women residing in the country as a result of immigration e.g. refugees and asylum seekers.	Professor Valerie Fleming, LJMU
Identifying addiction during pregnancy.	▪ Some addictions only become apparent during pregnancy, where struggles can occur to prevent harm to a child e.g. alcohol and drug addictions.	Professor Valerie Fleming, LJMU
Exploring the links between levels of education and pregnant women under 16.	▪ This group of women are often targeted as failures of the education system.	Professor Valerie Fleming, LJMU
Healthy children and young person biobank	▪ Create the UK's largest repository of CYP biosamples ▪ Underpinning resource for developmental pharmacology, therapeutics and personalised medicine programmes in CYP	LHP
Reducing the impact of age-inappropriate formulations	▪ Understanding the societal and economic impact of age inappropriate formulations ▪ Development of participatory methods for evaluation of medicine acceptability in CYP ▪ Development of novel age-appropriate formulations	Alder Hey; Liverpool PMRU, Alder Hey
Juvenile idiopathic arthritis (JIA), and JIA-associated uveitis	▪ Childhood arthritis and its associated uveitis: stratification through endotypes and mechanism to deliver benefit; the CLUSTER Consortium (recently funded MRC Stratified Medicine Progrogramme) ▪ Early and late phase clinical trials in JIA and JIA-associated uveitis	MW Beresford, UoL / Alder Hey and the EATC4Children

Longlist of clinical projects (cont.)

Project	Description	Owner
1 Starting Well: Maternal, Children and Young People's Health (cont.)		
Juvenile systemic lupus erythematosus	▪ Targeting cellular and molecular mechanisms in juvenile SLE ▪ Diagnostic and prognostic urinary biomarkers in lupus nephritis ▪ Characterization of blood and tissue immune cell distribution and phenotypes ▪ Identification of molecular disturbances causing inflammation and tissue damage ▪ Utilization of cellular and molecular patterns as biomarkers and therapeutic targets ▪ Reutilization of existing drugs for organ protection, precision medicine through blockade of single molecules (e.g. cytokines (IL-17A), protein kinases (Jak, CaMK4), etc.)	Michael Beresford, Christian Hedrich, UoL and the EATC4Children
Chronic non-infectious osteomyelitis (CNO)	▪ Identification of molecular pathomechanisms for a better understanding of disease ▪ Definition of diagnostic criteria ▪ Identification of serum/urine biomarkers for diagnosis, patient stratification, and activity assessment ▪ Identification of clinical measures of disease activity (Gate analysis, clinical scores, etc.) ▪ Involvement in consensus treatment plan development and evaluation (CARRA, GKJR initiatives) ▪ Clinical trial comparing pamidronate with adalimumab (NIHR proposal) ▪ Long term: animal models to investigate effects of diet and microbiome to disease expression and/or prevention	Michael W. Beresford, Christian M. Hedrich, UoL, and the EATC4Children
Juvenile psoriasis and juvenile psoriatic arthritis	▪ Targeting cellular and molecular mechanisms in juvenile psoriasis and juvenile psoriatic arthritis ▪ Characterization of blood and tissue immune cell distribution and phenotypes ▪ Identification of molecular disturbances causing inflammation and tissue damage ▪ Utilization of cellular and molecular patterns as biomarkers and therapeutic targets ▪ Precision medicine (e.g. cytokine blocking strategies (IL-1, IL-17A, TNF blockade), stimulation or inhibition of surface co-receptors (PD-1, ICOS), etc.)	Michael Beresford, Christian Hedrich, UoL Richards Parslew, Ali Alsharqi, Alder Hey, and the EATC4Children
Childhood Scleroderma and Behcet's	▪ Mechanisms and targets for therapy in childhood scleroderma and Behcet's ▪ Clinical trials in childhood scleroderma and Behcet's	C Pain, MW Beresford, and the EATC4Children

Longlist of clinical projects (cont.)

Project	Description	Owner
1 Starting Well: Maternal, Children and Young People's Health (cont.)		
Reducing the impact of respiratory disease in childhood on longer term respiratory health	▪ Bronchiolitis: new preventative and anti-viral treatments, and examining efficacy of existing treatments (Surfactant [BESS} & Non-invasive respiratory support [NOVEMBR])	McNamara/Semple
	▪ Cystic Fibrosis: investigating the impact of antibiotic prophylaxis on longterm airway infection [CF-START]	Southern/McNamara
	▪ Aspiration pneumonia: developing specific tests of aspiration pneumonia in children & adults with chronic airways disease (CF and Cerebral Palsy); assessment of impact of antibiotic prophylaxis on respiratory morbidity in children with severe neurodisability [PARROT]	McNamara/Semple
	▪ Asthma: how best to provide oxygen in acute asthma in hospital to reduce re-attendance [Humox]	McNamara
2 Health inequalities		
Development of new approach to address the rise of obesity in early years.	▪ The current approach adopted isn't currently working as evidenced by public health data.	Dr Lisa Newson, LJMU
Addressing maternal obesity and the consequences on both the mother and unborn.	▪ Currently a very poorly addressed issue, but projects are currently underway at LJMU.	Dr Lisa Newson, LJMU
Childhood asthma	▪ Improving medication compliance through community based interventions	Alder Hey
	▪ Interventions to manage acute asthma exacerbations in the healthcare setting	
	▪ Assessment of impact of breastfeeding and smoking on respiratory symptoms in pre-school period [Baby-breathe study]	Semple/McNamara
Improving child weight management.	▪ Investigating sedentary behaviour and physical activity in children. ▪ Active commuting in adolescents. ▪ A PhD programme currently underway to look at approaches to promote healthy weight in pre-school children.	Dr Lynne Boddy, LJMU
A review of physical literacy in children and the physical education curriculum.	▪ Developing tools to address physical literacy.	Dr Lynne Boddy, LJMU
Addressing the neglect of women living in poverty.	▪ Often overlooked in favour of other marginalised groups.	Professor Valerie Fleming, LJMU

Longlist of clinical projects (cont.)

Project	Description	Owner
2 Health inequalities (cont.)		
Development of patient centred diabetic care.	▪ Improve public perception of diabetes risk and prevention. ▪ Integrating psychology into diabetic care. ▪ Implement new methods of service delivery of care to avoid the same legacy results in patient outcomes.	Dr Lisa Newson, LJMU
A review of obesity services.	▪ New approaches to tackling obesity and managing the stigma attached as a result of tier 4 services being transferred to CCG's.	Dr Lisa Newson, LJMU
Understanding the impacts of physical activity in the natural environment and green/blue spaces.	▪ The impacts of this on health and wellbeing.	Dr Lynne Boddy, LJMU
Improving physical activity, sedentary behaviour and other health markers in workplaces.	▪ Assessment and attempt to improve workplace health.	Dr Lynne Boddy, LJMU
Developing of a multidisciplinary, theory-based approach to promote physical activity for adults with health conditions.	▪ A current PhD programme underway. ▪ GP referral of patients to exercise programmes and regimes.	Dr Lynne Boddy, LJMU
Understanding the physical health impacts of living with a mental health condition.	▪ Psychotropic side effects of medication e.g. obesity, chronic stress on cardiovascular, nervous and immune system, smoking, excessive alcohol consumption. ▪ Barriers for accessing physical healthcare.	Dr Grahame Smith, LJMU
Understanding the mental health impacts of living with a long term physical condition.	▪ Psychiatric side effects of medication e.g. steroids, hormonal imbalances. ▪ Increased dementia risk amongst diabetes and cardiovascular disease sufferers.	Dr Grahame Smith, LJMU
A review of mental health service delivery models.	▪ Explore new models of delivery e.g. suicide prevention.	Dr Grahame Smith, LJMU
3 Cancer		
Develop a Liverpool Cancer strategy across member organisations	▪ Develop a Liverpool-wide cancer strategy that is owned and supported by all HEIs and NHS trusts in Liverpool that deliver cancer services, CCG, and GPs. ▪ Define core areas of focus within Cancer and key projects to deliver.	LHP
Paediatric cancer	▪ Early and Late Phase Clinical Trials in Paediatric Cancer	Lisa Howell / Barry Pizer, Alder Hey and UoL
Cancer therapeutics	▪ Cancer drug discovery and development to support the treatment of the most prevalent cancers in Liverpool.	Munir Pirmohamed, UoL

Appendix

Longlist of clinical projects (cont.)

Project	Description	Owner
4 Infection / Pharmacology and genomics		
Vaccines	▪ Improving vaccine uptake and impact, linked to poverty and morbidity; targeting deprived parts of Liverpool and improving community engagement. ▪ Developing vaccines for UK use e.g. Norovirus	Neil French, UoL
Respiratory infection – Pneumonia	▪ Reducing the susceptibility to infection, improving prevention and optimising treatment.	Neil French, UoL; RLBUHT
Antimicrobial resistance surfaces hub	▪ Using cutting edge mathematics to develop high end anti-microbial surface maps which will support the prevention of microbial flow in hospitals.	Neil French, UoL; Alder Hey
Chronic Lung disease	▪ Focus on cystic fibrosis.	Neil French, UoL; RLBUHT
Antimicrobial product development	▪ Discovery of molecules and how to get this into humans, using pharmacogenomics to support the licencing of drugs.	Neil French, UoL; RLBUHT
Gastrointestinal research	▪ Using international research to support population health issues.	Neil French, UoL; RLBUHT
Gastrointestinal research	▪ Targeting of molecular mechanisms contributing to disease expression in individuals genetically predisposed for celiac disease	Christian Hedrich, UoL
Sepsis	▪ Developing bio-markers in paediatrics.	Neil French, UoL; RLBUHT
Bone and Joint	▪ Research to prevent and optimise the treatment of infections as a result of joint replacements.	Neil French, UoL; RLBUHT
Blood bank (biobank)	▪ Get every patient who has a blood test to consent to the city keeping all the unused portions of the samples, which get linked to an individual electronic health record. You can then run fantastic analysis on co-morbidities and lots of work that will be helpful for the development of personalised medicine. ▪ Also, children's biobank opportunities.	Munir Pirmohamed, UoL; all NHS trusts Alder Hey
Drug safety sciences in children	▪ Implement and evaluate tools for ADR avoidability, frequency, and causality, linked to EPR systems and LHP Informatics strategy/work	Munir Pirmohamed, UoL; Alder Hey
Experimental medicine and early phase clinical trials	▪ Academic pipeline to the NIHR Alder Hey Clinical Research Facility associated with the four 'Experimental Medicine Themes', namely 'Inflammation, Infection, Neuroscience and Cancer' ▪ Academic pipeline to the NIHR Alder Hey Clinical Research Facility associated with the four 'Experimental Medicine Clusters', namely Clinical Pharmacology and dose optimisation, Formulations, and Innovation and Devices' ▪ This relate directly to the Royal's CRU (NIHR funded) and the 'Liverpool Joint CRF Strategy Steering Committee'	Beresford / Peak, On behalf of many Fitzgerald et al, Royal

Longlist of clinical projects (cont.)

Project	Description	Owner
4 Infection / Pharmacology and genomics (cont.)		
Chronic Lung disease	▪ Focus on cystic fibrosis. ▪ Cystic Fibrosis: investigating the impact of antibiotic prophylaxis on longterm airway infection [NIHR-funded CF-START] ▪ Aspiration pneumonia: developing specific tests of aspiration pneumonia in children & adults with chronic airways disease (CF and Cerebral Palsy); assessment of impact of antibiotic prophylaxis on respiratory morbidity in children with severe neurodisability [NIHR-funded PARROT]	Neil French, UoL; RLBUHT Southern/McNamara McNamara/Semple
Chronic Lung disease	▪ Targeting systemic inflammation and tissue damage in CF (inflammasome activation); ▪ Potential reutilization of available anti- inflammatory treatment (NSAIDs, anakinra, etc.)	Christian M. Hedrich, Paul McNamara, UoL
Chronic non-infectious osteomyelitis (CNO)	▪ Identification of gene mutations and functional testing (using "triplets") ▪ Reutilization of existing drugs based on pathways affected (e.g. TNF inhibition, IL-1 blockade, etc.)	Michael Beresford, Christian Hedrich, UoL
Drug safety sciences in children	▪ Implement and evaluate tools for ADR avoidability, frequency, and causality, linked to EPR systems and LHP Informatics strategy/work	CDSS, UoL; Alder Hey
Developmental pharmacology	▪ Continued investment in paediatric clinical pharmacology to strengthen Liverpool as the national centre of excellence ▪ Develop PB/PK models for application in CYP (with support from pharmacometrician)	UoL/Alder Hey
Dose optimisation	▪ Dose optimization of unlicensed and off label medicines (e.g. legacy anti-microbials) in children and babies	Alder Hey/UoL

Seven step framework

In developing LHP's strategy and business plan the below seven-step conceptual framework was used as a guide. Each step has been discussed and worked through with LHP Board members and organisations during workshops and one-to-one discussions. This has been an important process to build consensus and create ownership of the strategy and business plan by members.

1. LHP's function and role within the innovation cycle

To understand whether LHP sits within the remit of research design, delivery, adoption or dissemination.

- What is LHP's function and remit within Liverpool's research and innovation landscape?
- Will it directly lead work in selected priority areas or coordinate between partners?
- What will LHP aim to deliver within each function?

2. LHP outcomes

To determine LHP's strategic outcomes and objectives.

- What are LHP's desired outcomes/what impact will LHP make?
- How will this be measured over the long term?
- What short-medium term performance indicators should be used to monitor progress?

3. Characteristics of a successful Health Partnership

To understand how Liverpool is performing against these characteristics and where does it need to invest.

i. Evidence of strong, trusted working relationships and a functioning and flourishing community.

ii. Strong governance and resources to support delivery of core objectives.

iii. Data and informatics infrastructure & capability

iv. Efficient and effective clinical trials capability.

v. Clear access for and to industry.

4. Liverpool's clinical research strengths

To highlight areas of excellent research Liverpool conducts presently.

- What are Liverpool's key clinical research strengths?
- How do these benchmark nationally and globally?

5. Liverpool's top population health needs/ priorities

To determine the top priority population health issues/needs on which LHP should focus, are they…?:

- Alcohol misuse.
- Cardiovascular disease.
- Cancer.
- Respiratory/COPD.
- Diabetes.
- Mental health.
- MSK.
- Obesity.
- Women and Children's.

6. Leadership and Governance to deliver outcomes

To develop leadership and governance options, providing structure for LHP to pursue its renewed vision.

- What leadership and operational structure is required for LHP to deliver?
- What governance is required to support this?
- What funding mechanism is required to sustain medium to long term operations?

7. Business Plan

To create a blueprint and plan that LHP can follow to achieve its short and long term goals.

- What activity should be be delivered in the next 3-5 years?
- What infrastructure (and investment) is required to support this?
- How will it be delivered?

Appendix

Core activities

During the LHP Board workshop, members were asked to define the functions LHP should deliver, including agreeing what LHP would do and what it would not do - along a spectrum that ranges from leading/setting priorities (left hand side of diagram), to co-ordinating and then owning delivery of functions (right hand side) on the table below.

There was an overall consensus that LHP will focus on leading / setting priorities and co-ordinating activities and it would not be delivering activity.

This table below shows the final list of functions agreed by the members and where on the spectrum LHP should focus (red arrows).

Function	Leading / setting priorities	*Co-ordinating*	*Doing / delivering*
Coordinating collaborative clinical research	Setting collaboration priorities between academia, NHS and the public and communicating them	Actively coordinating delivery of collaborative clinical research projects and the single research office	Delivering some research projects and working collaboratively with members to do so on others
Promoting clinical research and embedding a culture of research	Setting the key areas of clinical research to be pursued and building the relationships and communication channels to do so	Co-ordinating communications and marking, plus delivering ad hoc networking events and conferences	Promoting clinical research within academia and NHS, actively running networking events and coordinating communities of practice
Education and training to support transformation of clinical current practice	Promoting new training needs and the need for courses to support workforce development and CPD relating to priority areas	Coordinating and supporting the design and delivery of CPD training and education modules/programmes with partners	Leading, designing or delivering CPD / UG & PG training/education modules/programmes with partners
Grant and funding applications support	Setting the right standards for applications e.g. standard templates and messages	Coordinating and supporting grant and funding applications with members	Coordinating and leading (writing) core and significant grant and funding applications with members
Communications, marketing and branding	Setting a communications strategy on LHP's goals, activities, and how to support them	Internal communications plus an external-facing website that acts as a gateway into the Liverpool system	Internal communications plus pro-active external promotion of Liverpool to attract investment and collaborations
Building clinical research **informatics and data analytics** capability	Developing and steering the relevant aspects of a Liverpool and/or Cheshire & Mersey side informatics and data plan	Influencing wider plans on the patch, plus delivering individual use case projects to support wider plans	Leading and delivering individual informatics and data analytics infrastructure programmes/projects
Join up and coordinate Liverpool system of clinical trials	Set the strategy for clinical trials; act as a communications channel and conduit for external parties with universities and NHS trust R&D depts.	Streamline all trials bureaucracy and administrative processes (e.g. standardise all forms and admin) and coordinate trials activity centrally	Host a single office through which all trial activity in Liverpool can be streamlined & coordinated (without impacting individual trust sovereignty or R&D income)
Collaboration with industry	Work with the LEP to develop and lead a health and life sciences strategy for industry;	Coordinate industry engagement in priority clinical areas and act as industry front door (Industry Gateway)	Coordinate, act as front door, proactively promote Liverpool to industry, and solicit collaborations

Appendix

Stakeholders engaged

The following have been regular members of the working group formed to work alongside KPMG:

Individual	Organisation
Neil Goodwin	Aintree University Hospital NHS Foundation Trust, Chair and Liverpool Health Partners, Interim Chair
Jane Tomkinson	Liverpool Heart and Chest Hospital, Chief Executive Officer
Andrew Loughney	Liverpool Womens NHS Foundation Trust, Medical Director
John Graham	Royal Liverpool and Broadgreen University Hospital Trust, Director of Finance
Roz Way	Liverpool Health Partners, Director of Operations

The below table provides a list of stakeholders who were engaged with to develop the LHP strategy and business plan.

Individual	Organisation
Aidan Kehoe	Royal Liverpool and Broadgreen University Hospital Trust, Chief Executive Officer
Alan Davies	The Innovation Agency, Director of Digital Health
Alan Welby	Liverpool John Moores University, Director of Research and Innovation Services
Andrew Cannell	The Clatterbridge Cancer Centre, Chief Executive Officer
Andrew Gibson	Cheshire & Merseyside Sustainability Transformation Plan, Chair
Andrew Rose	Liverpool City Region Local Enterprise Partnership, Health and Life Sciences Manager
Blair Grubb	The University of Liverpool, Head of School, School of Life Sciences
Bill Griffiths	Royal Liverpool and Broadgreen University Hospital Trust, Chairman
Caroline Kenyon	The Innovation Agency, Director of Communications and Engagement
Cecil Kullu	Mersey Care NHS Foundation Trust, Associate Medical Director for Research Development and Innovation
Christopher Harrop	The Walton Centre, Chief Executive Officer
Dave Horsfield	NHS Liverpool Clinical Commissioning Group, Digital Care and Innovation Programme Lead
David Fearnley	Mersey Care NHS Foundation Trust, Medical Director
Sir David Henshaw	Alder Hey Children's NHS Foundation Trust, Chair
David Lalloo	Liverpool School of Tropical Medicine, Dean of Clinical Sciences and International Public Health
Gillian Hutcheon	Liverpool John Moores University, Head of the Institute for Health Research
Greg Woodley	Liverpool Health Partners, Communications Lead
Hakim Yadi	Northern Health Science Alliance, Chief Executive Officer
Hazel Scott	The University of Liverpool, Dean of Medical School
Janet Beer	The University of Liverpool, Vice-Chancellor

Stakeholders engaged (cont.)

The below table provides a list of stakeholders who were engaged with to develop the LHP strategy and business plan.

Individual	Organisation
Jim Cuthbert	Rutherford Medical Centre/GP Federation, GP
Joe Rafferty	Mersey Care NHS Foundation Trust, Chief Executive Officer
Liz Mear	The Innovation Agency, Chief Executive Officer
Louise Kenny	The University of Liverpool, Executive Pro-Vice-Chancellor for the Faculty of Health and Life Sciences from 1 January 2018
Louise Shepherd	Alder Hey Children's NHS Foundation Trust, Chief Executive Officer
Louise Wood	National Institute for Health Research, Department of Health; Director of Science, Research and Evidence
Mark Turner	The University of Liverpool/Liverpool Womens NHS Foundation Trust, Director of Research and Development
Martin Lombard	Liverpool Health Partners, Director of Clinical Strategy
Michael Beresford	Alder Hey Children's NHS Foundation Trust,/The University of Liverpool Professor of Child Health
Sir Munir Pirmohamed	Liverpool Health Partners/The University of Liverpool, Executive Director and Professor of Molecular and Clinical Pharmacology
Neil French	The University of Liverpool/Liverpool Health Partners, Clinical Academic Programme Lead – Infection
Peter Timmins	Liverpool City Region Health and Life Sciences Board, Chair
Peter Winstanley	Liverpool School of Tropical Medicine, Director of Strategic Projects
Rob Moots	The University of Liverpool/Liverpool Health Partners, Clinical Academic Programme Lead – Musculoskeletal
Robert Sutton	Royal Liverpool and Broadgreen University Hospital Trust/Liverpool Heath Partners, Director of Research
Roger Bickerstaff	Liverpool Health Partners, Commercial Accountant
Sarah Coupland	Liverpool Health Partners, Clinical Academic Programme Lead – Cancer
Simon Bowers	NHS Liverpool Clinical Commissioning Group, Chair and Clinical Director – Digital Innovation
Steve Warburton	Aintree University Hospital NHS Foundation Trust, Chief Executive Officer
Tom Walley	The University of Liverpool, Head of the Institute of Psychology, Health and Society and Professor of Clinical Pharmacology
Wendy Williams	The Clatterbridge Cancer Centre, Chair
Yvonne Bottomley	The Clatterbridge Cancer Centre, Deputy Chief Executive and Finance Director