Definitive Interventions and Feasibility Awards (DIFA) 2023

Full Application Guidance Notes

Guidance Notes

Key Dates & Times	
Full Application Open (invite only)	01 July 2022
Full Application Closing Date	15 September 2022 @13:00

**The HRB expects applicants to contact their Host Institution as soon as they are invited to submit Full applications and engage with them to facilitate a review of the application, including any institutional risk assessment. This is in particular to enable review of the application for detailed costings, and any approval of a sponsorship role. Please liaise with your Host Institution straight away to ensure you are fully aware of institutional requirements [1].*

Applications must be completed and submitted through the HRB online Grant E-Management System (GEMS) (https://grants.hrb.ie), and this system will close automatically at the stated deadline and timeline listed above.

***Prior to final submission to the HRB, all applications must first be reviewed and approved within GEMS by the authorized approver at the Host Institution as listed in the application form. It is critical therefore that applicants leave sufficient time in the process for the Research Office (or equivalent) in their nominated Host Institution to review, seek clarifications and approve applications prior to the final submission date. This may involve being aware of and complying with any internal Host Institution deadlines for review and approval, distinct from the HRB deadline.*

[1] Many HRB Host Institutions contributed to the **Corporate Enabling of Clinical Research** initiative, which included work on common approaches to institutional risk assessments before taking on the role of clinical trial sponsor. For more information see the full 2019 report at https://ncto.ie/wp-content/uploads/2022/03/CECR-WEB.pdf, and contact your Host Institution in relation to their specific requirements

Table of Contents

Guidance Notes

1 Introduction

The Health Research Board (HRB) Strategy 2021-2025[2] sets out a lead role of the HRB to invest in research that delivers value for health, the health system, society, and the economy. Objective 1.2 of the strategy aims to "Invest in clinical trials and interventions studies to drive excellence and innovation and to deliver benefits for patients, the health system, and the economy". The HRB will continue to support the Definitive Interventions and Feasibility Awards (DIFA) to deliver this objective.

2 Aim and Objectives

The overarching **aim** of the DIFA scheme is to achieve tangible benefits to patients, peoples' health and health services through **support of studies evaluating a full scale, definitive trial of an intervention**. The evaluation may be of any appropriate design and will provide high quality evidence on the efficacy/effectiveness, cost and broad impact of the intervention. To achieve a pipeline of such studies, stand-alone **feasibility studies**[3] **conducted in preparation for a future definitive trial of an intervention** are also supported.

For the purpose of this scheme, we adopt the concept of feasibility as described by Eldridge *et al* (2016). Eldridge describes 'feasibility' as an overarching concept, within which we distinguish between three distinct types of studies (1) randomised pilot studies (2) non-randomised pilot studies and (3) feasibility studies that are not pilot studies. This call is open to all types of stand-alone feasibility studies conducted in preparation for a future definitive trial of an intervention.

The **objectives** of the DIFA scheme are to:

- Fund research teams to conduct high quality definitive trials of interventions "definitive interventions", and feasibility studies in clinical and/or population health research and/or health services research that are relevant to health priorities internationally and/or nationally
- Support research that translates research knowledge into new ways of treating patients, delivering care or changing behaviour
- Support conduct of trial methodology research within the context of proposed trials or feasibility studies
- Improve health outcomes and health service delivery

3 Scope

The DIFA scheme supports research that addresses questions of direct relevance to the improvement of patient care, health of the public and health services and that has strong potential to have immediate use for decision makers in everyday clinical practice or policy.

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[2] *https://www.hrb.ie/strategy-2025/*

[3] *Sandra M. Eldridge et al. Defining Feasibility and Pilot studies in preparation for Randomised Controlled Trials: Development of a conceptual Framework. PLoS ONE 11(3): e0150205*

Cancer Stream
Aligned to HRB's recent investment in cancer clinical trials infrastructure, €3M of the total DIFA 2023 budget is aimed at supporting cancer-specific trials (both Feasibility studies and Definitive Interventions), as a separate cancer stream within the overall call. The assessment process and criteria will be the same for all DIFA applications.

The term **intervention** includes any method used to promote health, prevent and treat disease and improve health care delivery. Examples include:

- Pharmaceuticals
- Procedures such as physiotherapy, surgical, radiation, speech and language therapy and others
- Medical devices
- Diagnostic tests
- Screening programmes
- Behavioural or psychological
- Educational
- Settings of care
- eHealth
- Other studies not listed above

Note: The DIFA call will not support the development of an intervention. While a feasibility study may be useful for identifying further optimisation of an intervention, for a Definitive Intervention it is expected that the intervention has been fully developed.

HRB will support Regulated and non-Regulated trials and other interventions, according to the published assessment criteria. No preference is given for any particular type of intervention.

We expect that evidence is provided to support the case for specific interventions, and this evidence has been gathered systematically, i.e., as systematic reviews or other evidence synthesis formats. Simple literature overviews are not sufficient. Evidence synthesised systematically to include evidence of (i) a systematic identification of previous work, (ii) critical appraisal, (iii) synthesis of the evidence and (iv) interpretation of findings.

The types of studies funded:

1. **Definitive interventions** of any appropriate design, including randomised controlled trials and non-randomized trials, designed to assess the efficacy/effectiveness, cost and broad impact of an intervention. NOTE: The scheme **will not** support studies involving the development of an intervention.
2. **Stand-alone feasibility studies** conducted in preparation for a future definitive intervention. The sole aim of funding these studies is to establish a pipeline for definitive interventions, therefore clear progression criteria to a substantive study are required. The applicant should indicate the proposed research question of the future substantive study. It is not possible to apply for a

feasibility study, including a pilot study, and the associated definitive trial of the intervention at the same time.

Note: The scheme will also support **Studies within a trial (SWATs)** built into the main or feasibility study to explore **primary trial methodology questions**. To encourage and support further SWATs within the HRB-funded portfolio an additional funding of up to €20,000, will be available towards identified costs of conducting a SWAT. At Full Application stage the applicant team may add or remove a SWAT.

Participation in **international studies** at feasibility stage and participation in full-scale international studies subject to evidence of feasibility within Irish sites is permitted. This may be the case where Ireland may be a recruitment site in an investigator-led trial, or alternatively where the team in Ireland is playing a leadership role in a potentially high-impact study. **Where the team in Ireland is not playing a key role in an individual trial, the applicants must clearly articulate the value for Ireland.** This may be, for example, gaining experience in delivering complex studies, establishing a collaboration for future studies, or enabling patient populations in Ireland to participate in trials which otherwise they could not access (e.g. in rare diseases).

Note: Applicants as part of ongoing international trials will be required to provide a copy of the protocol. This will greatly assist the reviewers and panel members in reviewing aspects of commitment and access and overall study feasibility.

Costs associated with trial activities outside the island of Ireland are not eligible costs for the DIFA scheme. However, exceptions may be made in the case of rare disease trials (where overall participant numbers may be low), or where per patient costs of participants from Low to Middle Income Countries are included. In addition, where Ireland is leading an international trial, costs relating to sponsorship/trial coordination can be included.

This scheme will not fund:

- Research involving animals
- Pre-clinical studies
- PhD Research
- Stand-alone systematic reviews
- Translational Research. Costs for sample collection and biobanking in the context of the intervention are allowed where justified, however costs for the analysis of samples are not
- Applications seeking to evaluate all phases of an intervention. Applicants must apply for feasibility studies separate to the associated full scale, definitive trial. Prior to considering funding for a definitive intervention trial, the review panel will request the results of feasibility work (with a discussion around acceptability, recruitment, compliance issues, delivery of the intervention, settings, recruitment and retention, effect size etc. as appropriate)
- Applications which are solely or predominately health service developments or implementation of an intervention without a predominant research element. The HRB will not fund the cost of providing the service or intervention itself, only the research element

- Applications from individuals applying for, holding, or employed under a research grant from the Tobacco industry
- Applications for research intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer

The HRB is a signatory of the All Trials campaign (http://www.alltrials.net/) and supports the aim of having all trials registered and all results reported. We extend this ambition to all interventions funded by the HRB. Unregistered and unreported interventions are unethical and cause harm because 1) the work may be repeated, 2) a metanalysis of published results will be skewed, potentially leading to flawed clinical decisions and 3) participants have a legitimate expectation that results will be published. We therefore require all HRB-funded interventions to be registered in a publicly accessible register prior to initiation of the study. Results must be reported on the register within twelve months of completion of the intervention. The HRB also expects that results (positive and negative) of the intervention will be submitted for publication.

4 Funding Available and Duration

The HRB has allocated a total budget of €10.5M to the DIFA 2023 call. €3M of the total DIFA 2023 budget is aimed at supporting cancer-specific trials (both Feasibility studies and Definitive Interventions), as a separate cancer stream within the overall call.

The number of awards made will depend on the number of applications, the quality of applications submitted, and the amount requested per study type. Quality permitting, a **minimum of four definitive interventions** (with at least one in Cancer) in addition to feasibility studies will be funded in this round.

The awards will support research proposals up to a maximum value of **€1,200,000** (inclusive of overheads) for Definitive Interventions, and typically **€380,000** (inclusive of overheads) or below for feasibility studies. Award durations of between 12-48 months (but not beyond 60 months) will be allowed. The HRB acknowledges that feasibility studies for complex interventions may incur higher costs than feasibility studies for RCTs. The cap of €380,000 for feasibility studies may be exceeded in exceptional cases where suitably justified.

An additional €20,000 (inclusive of overheads) can be requested for conducting a **SWAT,** in addition to the overall budget.

Applicants should carefully review the HRB-NCTO Checklist for Clinical Trial Costs[4] for guidance on potential costs associated with clinical trials and seek guidance on the budget at an early stage from their Host Institution or relevant Infrastructures to ensure the study is costed appropriately.

[4] HRB NCTO Checklist for Clinical Trial Costs - HRB NCTO | Health Research Board - National Clinical Trials Office

The budget requested and award duration of all proposals must reflect the scale and nature of the proposed research. Reviewers will thoroughly assess this when reviewing the proposal and will pay particular attention to feasibility studies in this respect. The maximum funding envelope available is **not** an invitation to apply for the maximum amount.

*Please refer to the HRB Clinical Trials and Interventions Research Governance Policy[5] for further details. Please note that **all trials and interventions** (Regulated and non-Regulated) directly funded by HRB will require a sponsor. HRB cannot act as the sponsor. The sponsor for HRB-funded trials cannot be an individual or company. Full details on the sponsor for the study, with a supporting document from the sponsoring institution will be required at submission of Full Application.*

5 Eligibility Criteria

5.1 Applicant Team Expertise

Applicants must demonstrate that the research team contains the necessary breadth and depth of expertise in all the methodological areas required to deliver the proposed study. Appropriate multi and inter disciplinary involvement in the research team is essential. As appropriate to the proposed study, experts in trial methodology, statistics, trial management, health economics, PPI contributors, health service research, behavioural science, qualitative research methodologies, psychology, sociology etc. should be included as Co-Applicants or as official Collaborators or requested as funded personnel. Roles and responsibilities of funded personnel must be differentiated and clear. Reviewers will thoroughly assess the level of experience matched with the supervisory and up-skilling arrangements proposed in scoring the application. Unlike the HRB's career development awards, this scheme is not framed as a training initiative and is **not suitable for students in pursuit of a higher degree.** The Applicant Team has been made more flexible to allow for a broader mix of Co-Applicants and Collaborators, in recognition of the growing size of the team necessary to deliver the study successfully). For studies that require substantial coordination, applicants should strongly consider the appointment of a study manager or coordinator (for small studies this may be one of your Co-Applicants rather than a dedicated post).

The HRB expects that applicants will collaborate, where appropriate, with partner organisations such as hospitals, health agencies, universities, local government, voluntary organisations and/or industry. The HRB encourages applicants to secure co-funding, where possible, from partner organisations. Applicants must also demonstrate the commitment of their partner organisations with evidence of existing partnerships and/or plans on how they will contribute to this award.

[5] https://www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-clinical-trials-and-interventions-governance/

5.2 Lead Applicant/Co-Lead Applicant Eligibility

The **Lead Applicant** will serve as the primary point of contact for the HRB during the review process and on the award if successful. The Lead Applicant will be responsible for the scientific and technical direction of the research programme. She/he has primary fiduciary responsibility and accountability for carrying out the research within the funding limits awarded and in accordance with the terms and conditions of the HRB.

The Lead Applicant must:

- Hold a post (permanent or a contract that covers the duration of the award) in a HRB recognised Host Institution in the Republic of Ireland (the "Host Institution") as an independent investigator. For clinicians, an adjunct position in a HRB recognised Host Institution is acceptable **or**
- Be a contract researcher recognised by the Host institution as an independent investigator who will have a dedicated office and research space for the duration of award, for which he/she will be fully responsible, **or**
- Be an individual who will be recognised by the Host Institution upon receipt of a DIFA award as a contract researcher as defined above. The Lead Applicant does not necessarily need to be employed by the Host Institution at the time of the application submission.

They **must** show evidence of achievement as an independent researcher in their chosen research field by:

a) Demonstrating a record of research output, with at least three publications of original research in peer reviewed journals **and/or** evidence of expertise in conducting trials matched to the nature and context of the project. Where appropriate, they should also provide evidence of other outputs such as published book chapters, reports to government and/or any other relevant outputs that have resulted in a significant impact in their field.
b) Demonstrating record of independence by showing that they have secured at least one peer-reviewed research grant for a research project/s, as either the Lead Applicant or a Co-Applicant. Funding received for travel to seminars/conferences and/or small personal bursaries will not be considered in this regard.
c) Show evidence that they possess the capability and authority to manage and supervise the research team.

Co-Lead Applicant option: where a **health and care practitioner investigator wishes to lead an application** and does not have the required academic track record to apply as Lead Applicant the applicant team may designate two **Co-Lead Applicants**, *at least one of whom must be a health and care practitioner practising in Ireland*. **One or both** will have to fulfil the typical requirements of a HRB Principal Investigator in terms of the expected academic track record (as set out in the eligibility requirements). Both are expected to demonstrate **relevant experience and expertise in clinical trials and other interventions.** Where more junior clinicians are interested in applying and do not meet the criteria for a Lead/Co-Lead Applicant, they are encouraged to apply as a Co-Applicant in the team.

This option of Co-Lead Applicants is intended to allow health and care practitioner investigators, who may not have previously held research grants in their own name, to gain experience in leading such awards. This option may be particularly appropriate for feasibility studies, with a view to gaining experience for the future definitive trial. The Panel will be asked to carefully review the level of experience and expertise in the Applicant Team matched to the nature and complexity of the proposed trial or other intervention, and in particular being sensitive to the different objectives of a feasibility study compared with a definitive trial.

It is strongly recommended that the Lead Applicant has experience in the conduct of interventions. Only one application per Lead/Co-Lead Applicant to this scheme will be considered.

For applications utilising the option of two Co-Lead Applicants, one Lead Applicant must take on the role of submission to GEMs, their CV and contact details will be pulled through from GEMs. Co-Lead Applicants must enter their details manually. Co-Lead Applicants must review and approve the application prior to submission.

HRB is a signatory of DORA (San Francisco Declaration of Research Assessment) [6] and explicitly guides reviewers to assess the track record of lead applicants aligned with DORA principles, as appropriate.

5.3 Co-Applicants & Collaborators

The number of individual Co-Applicants and Collaborators within the Research Team is not prescribed however, **the total number of Co-Applicants and Collaborators must not exceed 15.** The applicant team may be re-configured at Full Application (either to address a key gap identified by the Panel during their review, or to add a PPI co-applicant or collaborator), however the cap of a combination of 15 Co-applicants and Collaborators will remain.

5.3.1 Co-Applicants

A Co-Applicant has a well-defined, critical and substantial role in the conduct and steering of the proposed research. Co-Applicants from outside of the Republic of Ireland are eligible, and welcome where such participation adds value to the proposed study. A Co-Applicant may receive funding for items such as running costs and personnel. They will not receive support towards his/her own salary if they are in salaried positions. However, if they are not in a salaried position Co-Applicants can request their own salary or proportion of their salary, depending on their role and percentage of time dedicated to the research project. Each Co-Applicant must confirm their participation and is invited to view the application form online. We would not anticipate more than 10 **Co-Applicants** to be included (up to a **maximum of 15 Co-Applicants and Collaborators in total**).

[6] https://www.sfdora.org/read

5.3.2 Collaborators

An official Collaborator is an individual or an organisation that provides an integral and discrete contribution (either direct or indirect) to the proposed research activities. A collaborator may provide material, training, access to specific equipment, specialist staff time, trials advice or other support, access to data and/or patients, instruments or protocols or may act in an advisory capacity. They can be based in an academic institution, a private enterprise, a healthcare organisation or agency, or come from the charity sector. Collaborators may be based outside the Republic of Ireland. Profile details must be provided for ALL official collaborators.

Each official collaborator must complete a **Collaboration Agreement Form** at Full Application stage. A template Collaborator Agreement form will be made available on GEMs for download. We would not anticipate more than **10 Collaborators** to be included (up to a **maximum of 15 co-applicants and collaborators in total**).

Relevant key gatekeepers should be named as Collaborators within your application form if the success of the study is dependent on access to

- Healthy volunteers or patients
- Vulnerable population groups
- Data or databases
- Existing national or international study (e.g. an existing cohort or longitudinal study or a clinical trial).

5.3.3 Funded Personnel

Applicants must demonstrate that the level, expertise, and experience of proposed research personnel matches the ambition and scale of the project and that they possess the necessary breadth and skills in all methodological areas required to deliver the proposed programme of work. Alignment between personnel requested and the proposed project should be demonstrated. Roles and responsibilities of funded personnel must be differentiated and clear. Reviewers will thoroughly assess the level of experience matched with the supervisory and up-skilling arrangements proposed in scoring the application.

6 Host Institution

A HRB Host Institution is a research performing organisation that is approved by the HRB for the purpose of receiving and administering HRB grant funding and is responsible for compliance with all general and specific terms and conditions of awards. HRB Host Institution status is a requirement to submit an application under all HRB award schemes. The **Host Institution for the award** is normally that of the **Lead Applicant** but it may be another organisation/institution designated by the research team, where it is clearly justified. In order to be eligible to apply for funding, an Institution must be an approved HRB Host Institution no later than two calendar months before the closing date of a call. A list of currently approved HRB Host Institutions and information on the application process for

research performing organisations to be approved as HRB Host Institutions can be found on the HRB website[7].

Host Institution Letters of Support must be provided for **(1) all Lead Applicants in a contract position and (2) Co-Applicants in a contract position who are seeking their own salary.** The formal letter on headed notepaper, dated and signed by the Head of School/Research Centre/Hospital must include the following information; [*Host Institution - insert name*] which is the host institution of [*applicant - insert name*] confirms that [*applicant - insert name*]: (i) holds an employment contract which extends until [*insert date*] or will be recognized by the host institution upon receipt of the HRB ILP award as a contract researcher; (ii) has an independent office and research space/facilities for which he/she is fully responsible for at least the duration of the award, and (iii) has the capability and authority to mentor and supervise the research team. Electronic signatures are acceptable for letters that are uploaded on the HRB GEMS system.

It is the responsibility of the Lead Applicant to ensure that applications are completed in full, and all necessary documentation is received by the HRB on, or before, the closing dates indicated.

Note: Applicants are encouraged to engage with their Host Institution to avail of any infrastructures, specialised or other supports/advice available to them internally. This specifically includes requirements for any institutional risk assessment and approval of a sponsorship role.

7 Access and support from Clinical research infrastructures

Applications are expected to avail of the advice, research design, data management services and other forms of support from existing research infrastructures such as a Clinical Research Facility/Centre (CRF/C), Centre for Applied Medical Imaging (CAMI), HRB National Clinicals Trial Office (NCTO), the HRB Trials Methodology Research Network (HRB TMRN)[8], a thematic HRB Clinical Trials Network (HRB CTN) or Cancer trials in Ireland Groups, or the National Cancer Clinical Trial Network

Where applicants are availing of such services, they are required to provide additional information detailing the scope and nature of the engagement (this includes national and international facilities, Units and Networks as required).

An **Infrastructure Agreement form** will be requested as part of the application addressing the nature/scope of the service or collaboration, the rationale behind the choice of facility/centre/network and any costs associated with the project (including those provided as in-kind contributions). Applications proposing research with patients which do not detail advice and/or support from a CRF/CRC/CTU will be asked to justify why they have not done so.

[7] http://www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-approval-of-host-institutions/

[8] Support by the HRB-TMRN requires the inclusion of a primary methodological study within a trial (SWAT) or must include a non-standard novel trial design

HRB Clinical Trials Policy

Note: In line with the HRB Clinical Trials and Interventions Research Governance Policy Regulated clinical trials such as a clinical trial of an investigational medicinal product or a clinical investigation must be conducted under the governance of a Clinical Research Facility/Clinical Research Centre (CRF/C), evidence of which must be provided to HRB in the form of a completed Infrastructure Agreement Form, setting out governance arrangements, signed by the Director of the facility).

In addition, as per the Policy, the HRB requires that all clinical trials and interventions have the appropriate governance arrangements to ensure suitable arrangements for the management and oversight of clinical trials are in place.

Participation in international studies

For applications intended as part of an international study the applicants will be asked to provide details on the status, funding source, recruitment targets and outline the role of the Irish applicant as lead of the study or as participants. *Where the team in Ireland is not playing a leading role in an individual trial, the value for Ireland must be clearly articulated to the Panel; applications which do not do so will not be competitive.* Value for Ireland may be, for example, gaining experience in delivering complex studies, establishing a collaboration for future key studies, or enabling patient populations in Ireland to participate in trials which otherwise they could not access (e.g. in rare diseases).

Applications as part of ongoing international trials will be required to provide a copy of the protocol at Full application stage. If the study is live, a letter from the Chair of the Independent Data Monitoring Committee (IDMC) outlining how the recruitment is progressing and any issues that may be relevant for reviewers should be provided. This will greatly assist the reviewers and panel members in reviewing aspects of commitment and access and overall study feasibility.

Costs associated with trial activities outside the island of Ireland will not be eligible costs for the DIFA 2023 scheme. However, exceptions may be made in the case of rare disease trials (where overall participant numbers may be low), or where per patient costs of participants from Low to Middle Income Countries are included. In addition, where Ireland is leading an international trial, costs relating to sponsorship/trial coordination can be included.

8 Public, Patient and Carer Involvement (PPI) in Research

The HRB promotes the active involvement of members of the public, patients and carers in the research that we fund[9] https://www.hrb.ie/funding/funding-schemes/public-and-patient-involvement-in-research/. Public, Patient and Carer Involvement (PPI) is research carried out 'with'

[9] https://www.hrb.ie/funding/funding-schemes/public-and-patient-involvement-in-research/

or 'by' members of the public rather than 'to', 'about' or 'for' them[10]. PPI, as defined here, is distinct from and additional to activities which raise awareness, share knowledge, and create a dialogue with the public, and it is also distinct from recruitment of patients/members of the public/carers as participants in research.

PPI represents an active partnership between members of the public, patients and carers and researchers in the research process. This can include, for example, involvement in the choice of research topics, assisting in the design, advising throughout or at particular decision points of the research project or in carrying out the research.

PPI contributors should be actively involved and part of decision making. Involving members of the public in research can improve quality and relevance of research. It can:

- Provide a different perspective - even if you are an expert in your field, your knowledge and experience will be different to the experience of someone who is using the service or living with a health condition.
- Make the language and content of information such as questionnaires and information leaflets clear and accessible.
- Help to ensure that the methods proposed for the study are acceptable and sensitive to the situations of potential research participants.
- Help to ensure that the research uses outcomes that are important to the public.
- Identify a wider set of research topics than if health or social care professionals had worked alone.
- Help you increase participation in your research by making it more acceptable to potential participants.

In addition to improving relevance and quality of research, it ensures that research is influenced by broader principles of citizenship, accountability, and transparency. PPI is an ethos as well as a practice. It should be context-specific and should aim to ensure that all voices are heard. Where members of the public or patients are involved, they must be compensated for their time and contributions.

In the application, you are asked to describe any public involvement in your research throughout the various stages of identifying and prioritising the research question, the research design, conduct, analysis, and dissemination. We recognise that the nature and extent of active public involvement is likely to vary depending on the context of each study or award. PPI contributors should be named as Co-applicants where justified by their level of involvement.

We strongly advise that you consult with the PPI Ignite Network Ireland or your Host Institution who will be able to provide guidance and support on PPI in research. The PPI Ignite Network Ireland has offices located in the following seven Host Institutions: DCU, NUIG, RCSI, TCD, UCC, UCD, UL.

[10] https://www.nihr.ac.uk/patients-carers-and-the-public/i-want-to-help-with-research/

Note: While PPI is not a stand-alone scoring criterion in DIFA 2023, a public review of Full Applications will take place and Panel reviewers will have sight of both the public review, as well as the scientific peer reviews, and the applicant team's response, thus it can inform the review of each application.

9 FAIR Data Management and Stewardship

Data management/stewardship plans (DMP) are nowadays widely accepted as part of good research practice. The HRB support open research[11] and open publishing directly through the HRB Open Research platform[12]. The HRB is driving the making of research data **FAIR** (**F**indable, **A**ccessible, **I**nteroperable and **R**e-usable) in order to benefit science by increasing the re-use of data and by promoting transparency and accountability.

FAIR data principles[13] provide a guideline for those wishing to enhance the re-usability of their data holdings: these principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its re-use by individuals. For researchers, the move to FAIR and open data, where applicable, means researchers should consider data management issues and find suitable data repositories at the research planning stage. Applicants will have to provide information about their plans for data management and data sharing at application stage.

In line with the HRB's policy on management and sharing of research data[14], all successful applicants are required to submit a completed data management plan (DMP) to the HRB on or before three months after the award start date, and a final updated version of the DMP with the last annual report.

- The DMP will need to be submitted alongside a certification of completion from the designated representative(s) within the Host Institution.
- Applicants will have to provide an outline of their plans for data management and data sharing in the application inclusive of the costs associated to the plan.
- The timing for completion and submission of the DMPs must be also included among the objectives and deliverables of the programme.

10 General Data Protection Regulation

The **General Data Protection Regulation** (GDPR) came into force on 25 May 2018. As a result, the applicant team will be asked through the HRB online grant management system GEMS to **confirm you understand** that personal data provided as part of this application, including but not limited to CV information, may be shared with person(s) based outside of the European Economic Area (EEA) for the specific purpose of obtaining peer reviews of this application. International reviewers play a

[11] http://www.hrb.ie/funding/policies-and-principles/open-research/

[12] https://hrbopenresearch.org/

[13] https://www.nature.com/articles/sdata201618

[14] https://www.hrb.ie/fileadmin/user_upload/HRB_Policy_on_sharing_of_research_data.pdf

vital role for the HRB in setting standards and in benchmarking our scientific community to enable them to operate in a global context. Individual peer reviewers are selected for their specific expertise in relation to submitted applications and can be based anywhere in the world.

Furthermore, by confirming participation, you will be asked to confirm you understand that HRB uses the information you provide (regarding all applicant team members) to consider your application, contact you about your application, and if you are successful, to manage your grant throughout its lifetime in accordance with HRB general T&C for research awards. This will include contacting you with regard to monitoring of progress through written reporting and other means e.g., interim review. We will publish some basic information on successful awards including PI, Host Institution, amount awarded and lay summary on our website and may highlight individual awards or researchers in more detail (with specific consent). We will also use the information you have provided to generate general statistics around our current funding portfolio, and to evaluate our funding mechanisms and investment. After your grant has ended, we will continue to keep your information on file (in accordance with HRB policies) to allow us to evaluate the outcomes, outputs and impacts of HRB investment in your research.

Please note that we will also use information associated with *unsuccessful* applications for a number of the purposes outlined above such as generating general statistics around our current funding portfolio, and to evaluate our funding mechanisms and investment e.g., demographics of applicants, research areas of applicants. Similarly, we will use the information provided about people employed on awards to help evaluate our career support and capacity building initiatives.

11 The Health Research Regulations

Following the implementation of GDPR, a regulation for health research known as the Health Research Regulations 2018 (S.I. 314) has been implemented, with further amendments made in 2019 (S.I. 188) and 2021 (S.I. 18)[15]. These regulations outline the mandatory suitable and specific measures for the processing of personal data for the purposes of health research. They further set out that explicit consent is a mandatory safeguard that must be obtained from individuals when using their personal data for health research. Where it is not feasible to obtain explicit consent, an application for a consent declaration can be made to the Health Research Consent Declaration Committee [16].

12 Research on Research

The HRB is developing its approach to research on research (RoR) with the aim of enhancing the evidence base for HRB research funding practices. We may also collaborate with researchers on request regarding specific RoR questions. Should your application become of interest to such a study, the HRB will seek your consent for the use of your information.

[15] http://www.irishstatutebook.ie/eli/2021/si/18/made/en/pdf

[16] https://hrcdc.ie/

13 Application, Review Process and Review Criteria

13.1 Grant E-Management System (GEMS)

Invited Full applications must be completed and submitted through the HRB online Grant E-Management System (GEMs) (https://grants.hrb.ie). GEMs will close the Full Application stage automatically at **1pm on 15 September 2022.**

The application must have been reviewed and approved by the signatory approver at the research office (or equivalent) in the Host Institution before it is submitted to the HRB. Therefore, applicants should ensure that they give the signatory approver sufficient time before the scheme closing date to review the application and approve it on GEMS. Please note that many host institutions specify internal deadlines for this procedure.

The HRB is committed to an open and competitive process underpinned by international peer review. To ensure the integrity of the assessment process, conflict of interest and confidentiality are applied rigorously in each stage of the process.

13.2 Full Application Review Process

Information from the pre-application stage will feed automatically into the full application form. The Lead Applicant will have the opportunity to make revisions and to address the panel feedback from the pre-application stage as appropriate. Full applications should reflect a development of the relevant pre-application rather than a radically different approach. Revisions may include for example changes to the research team to address gaps in expertise, changes to work packages, changes to methodology, changes to budget.

Full applications will undergo a two-stage review process as follows:

Stage 1 - International Peer and Public review

For each invited Full Application, the HRB aims to receive written feedback from at least three international peer reviewers and two public reviewers.

International peer reviewers play a vital role for the HRB in setting standards and in benchmarking our scientific community to enable them to operate in a global context. Peer reviewers will focus on the stated assessment criteria for the call and will provide comments as well as a score which is visible to the HRB and to panel members.

Public reviewers will only assess the quality of PPI in the proposal and will provide comments and an overall rating which will be shared with the panel. Public reviewers will not provide a score.

Public Reviewers are asked to comment on the following:

- The Plain English Summary (Lay Summary)
- Relevance of the Proposed Research Question
- Public and Patient Involvement in development of and throughout the project
- Research Design - inclusion of research participants (where applicable)
- Dissemination and Potential Impact of the Proposed Work

Both peer and public review comments will not include any reference to the reviewer's identity or their submitted scores or rating. The HRB will share the public review feedback with the PPI Ignite Network team in the Host Institution where applicable.

Applicant Response

The applicant team will be provided with a time-limited opportunity to respond to peer and public review comments. Neither peer nor public review comments will include any reference to the reviewer's identity. Public review ratings will be shared.

Peer review and public review comments will be made available to the Lead Applicant on their GEMS personal page. The Lead Applicant will submit their response through GEMS, and the response has a **maximum word count of 2000 words only for the peer review response** (including references) and **500 words only for the public review response**. The response will be provided to members of the Review Panel, in advance of the Panel meeting, along with the application, the peer and public review comments and rating.

This phase of the assessment process is extremely important, and the response will likely play a critical role in whether an application ultimately gets recommended for funding or not. It provides an opportunity to address any factual errors, conceptual misunderstandings or differences of opinion that can be perceived as weaknesses or concerns. It also provides the applicant team with an opportunity to take on board any constructive feedback that may help to improve the application, if funded, or future grant applications.

The response should be succinct yet clear and comprehensive. It should address all of the significant concerns and/or weaknesses described in the reviewer's feedback. If the applicant team disagrees with a reviewer's statement, they should explain why and provide additional information. If the applicant team cannot address an issue, they should, at a minimum, acknowledge it. Responses that could be construed as argumentative should be avoided. Please note HRB reviewers volunteer their own time in reviewing grant applications.

Stage 2 - International Panel review

The Full Application Panel will comprise of an independent Chair and approx. ten international Panel members, selected from the HRB DIFA Standing Panel established for the previous round of the HRB DIFA scheme in 2020. Members will have served on the Pre-Application Panel.

The panel will review the strengths and weaknesses of the application relating to the assessment review criteria detailed below. While PPI is not a stand-alone scoring criterion, Panel members will have sight of the public review, the international peer review and the applicant team's response, to inform their review.

Full applications recommended for funding by the Panel will be submitted to the Board of the HRB for approval. A summary of Panel Member's comments and the panel discussion comments will be issued to the Lead Applicant following the conclusion of the review process.

Gender balance of the Lead Applicant will be considered where required to prioritise proposals with the same scores in the Panel ranking list.

The PPI review does not constitute a standalone scoring criterion in this round, however it can influence discussions under each assessment criterion as relevant to the project

Review Criteria

The Peer reviewers and Panel reviewers will assess all full applications based on the following assessment criteria, which have equal weight. Successful applications must score highly in all criteria.

1. **Case for the study**
    - Important research question
    - Evidence supports the need for this study
2. **Potential for impact of the study**
    - Likely to impact on patients, public and/or healthcare system
3. **Research team and environment**
    - Appropriate skill mix and experience
    - Appropriate supports, infrastructures and research environment
4. **Appropriate methodology**
    - Study design and methodology will answer the research question
5. **Feasibility of the study**
    - Study will be delivered to time and on target
    - Resources are sufficient and reasonable

In addition, applicants should be aware that where there are serious ethical or safety concerns for participants in the study and these issues have not been addressed to the satisfaction of reviewers, such studies will not be supported.

Panel members will be advised to take PPI approaches into consideration under any of the assessment criteria if considered relevant.

13.3 HRB Gender Policy

In line with international best practice, the **HRB Gender Policy**[17] recognises the responsibility the HRB has to supporting everyone to realise their full potential in order to ensure equality of opportunity and to maximise the quantity and the quality of research. To ensure fairness and equality to all applicants, each funding application received will be assessed as outlined in the call guidance documentation for that funding round. To ensure gender balance in decision-making, the HRB aims to reach the international best practice target of 40% of the under-represented gender in all HRB panels where possible. Gender will also be considered when appointing the position of Panel Chair.

[17] www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-gender-in-research-funding

14 Conflict of Interest

Conflict of interest rules *are applied rigorously*. Where a conflict of interest exists, the reviewer is requested to inform the HRB immediately so that an alternative reviewer may be appointed. International peer reviewers will not provide comments or scores on any application on which they have a conflict of interest.

Reviewers must adhere to high standards of integrity during the peer review process. They must respect the intellectual property of applicants and may not appropriate and use as their own, or disclose to any third party, ideas, concepts, or data contained in the applications they review.

15 Appeals procedure

The HRB's procedure for appealing funding decisions is available at **http://www.hrb.ie/funding/funding-schemes/before-you-apply/relevant-policies/**.

16 Privacy Policy and Retention Policy

To understand why we collect the information we collect and what we do with that information, please see our Privacy[18] and Retention Policies[19].

17 Timeframe

Date	
01 July 2022	Full Application Opens
15 September 2022 @13:00	Full Application Closes
September - early December 2022	Peer and Public review
05 December - 16 December 2022	Applicant response
19 December - end January 2023	International Panel review
Mid February 2023	Review Panel Meeting
Feb - March 2023	HRB Board approval
May 2023	Earliest start date

18 Contacts

For further information on the Definitive Interventions and Feasibility Awards contact:

Dr Karen Crowley

Project Officer

Health Research Board

e kcrowley@hrb.ie

[18] https://www.hrb.ie/about/legal/privacy-policy/

[19] https://www.hrb.ie/fileadmin/user_upload/HRB_Document_retention_policy..docx

Dr Fiona Manning

Programme Manager

Health Research Board

The HRB reserves the right to reject any application that does not meet the terms of this call.

Appendix I: Detailed Guidance on the Application Form

Please review carefully as changes may have been made from the guidance provided at pre-application stage. Information from the Pre Application stage will feed automatically into the DIFA Full Application form and can be edited as required. In many cases the word count for Full Application will have increased significantly, so information provided in these sections should be expanded accordingly.

Only registered users of the GEMS system can apply for grants. In order to submit an online application to the HRB, applicants are required to register at the following address: https://grants.hrb.ie. *Please refer to the **GEMS Technical Guidance Note**[20], available on the left-hand column of your GEMS profile homepage, for further information.*

The **Lead Applicant** must create the application, but it can then be jointly completed with named Co-Lead (if applicable) and co-applicants. For applications utilising the option of two Co-Lead Applicants (only available where one co-lead is a health and care practitioner), one Lead Applicant must take on the role of submission to GEMs. Both Co-Lead Applicants must review and approve the application prior to submission.

- Lead Applicants can register on GEMS and they will receive an email to confirm their registration and log in details. The Lead Applicant can then add information on their contact and CV details in 'Manage My Details' section of GEMS.
- Lead Applicants previously registered on GEMS can login to GEMS and update any information regarding their contact and CV details in 'Manage my details'.

Once logged in to GEMS applicants are taken directly to the Home page which is the starting point to create a new Grant application. Please select the Definitive Interventions and Feasibility Awards (DIFA). ***Further details for completing each of the main sections of application form is provided below.***

Host Institution

The HRB expects applicants to contact their Host Institution as soon as they are invited to submit Full Applications and engage with them to facilitate a review of the application, including any institutional risk assessment. This is in particular to enable review of the application for detailed costings, and any approval of a sponsorship role. Such processes may have changed since the last DIFA round, so please liaise with your Host Institution straight away to ensure you are fully aware of institutional requirements.

For the purposes of contracting, payment, and management of the award, HRB funds can only be awarded to HRB approved Host Institutions in the Republic of Ireland. The Host Institution for the award is normally that of the **Lead Applicant**, but it may be another organisation/institution designated by the research team, where it is clearly justified. A list of the Host Institutions approved by the HRB at the time of this call going live is included as a PDF on GEMS. In GEMS you will be asked

[20] https://research.ie/assets/uploads/2020/05/CCGT-Grant-Application-System-Technical-Guidance-Notes.pdf

to identify a Host Institution (from this list) and type it in full (do not use acronyms such as UCD, TCD, NUIG). Once you have entered the first 3-4 characters of the Host Institution, you will be assisted with auto-select options. It is important that the Host Institution name is entered accurately and in full as an incorrect entry may result in delays in attaining Host Institution approvals.

If you wish to propose a Host Institution which is not on the HRB list, you are advised to contact the HRB at gemshelp@hrb.ie.

Note: In order to be eligible to apply for funding, an Institution must have been approved as a HRB Host Institution no later than two calendar months before the closing date of a call, only pre-approved Host Institutions will appear in this list.

Signatory Notification (within Host Institution)

Once the **Host Institution** is selected at the initial stages of application creation, this will allow the Lead applicant to notify the authorised signatory (Dean of Research or equivalent person authorised to endorse research grant applications for the Host Institution) in that Host Institution of the Lead Applicant's intention to submit an application to the ILP 2022. The signatory's details are pre-populated in the system, so the applicant just needs to click 'NOTIFY' within GEMS. We recommend that **you notify the Host Institution signatory** of your intention to apply as soon as possible in the application process. The signatory will receive an email from GEMS with the name and email details of the Lead Applicant and if they have any queries or clarifications, they can engage directly to resolve them with the Lead Applicant. The Host Institution signatory must confirm their willingness to participate as Host Institution for the application through GEMS and once they do this a PDF of the application will be available for them to review with a view to them ultimately approving the final version for submission to the HRB.

1 Lead Applicant, Co-Lead Applicant, Co-Applicant and Collaborator Details

1.0 Are you utilising the Co-Lead Applicant Option? Y/N

Please note, this option is only available where at least one of the Co-Leads is a Health and Care Practitioner researcher practising in Ireland.

For applications utilising the option of two Co-Lead Applicants, the same information will be requested for each person. One Lead applicant must take on the role of submission to GEMs, their CV and contact details will be pulled through from GEMs. Co-Lead Applicants must enter their details manually. **Co-Lead Applicants must review and approve the application prior to submission.**

1.1 Lead Applicant

Details are requested about the **Lead Applicant** including their position and status (contract or permanent), their supervisory experience, and whether they are seeking salary-related costs. Please

note that a letter of support from the Host Institution must be provided if the Lead Applicant is in a contract position.

The Lead Applicant's **contact and CV** details (Name, contact information, institution, present position, employment history, profession, membership of professional bodies, and ORCID iD) are managed in 'manage my details' section of GEMS and are automatically included in any application created involving that individual. You are asked to select your 10 most relevant publications for this application on which you have acted as senior author.

Note: The HRB is now an ORCID member. Lead applicants are encouraged to include an ORCID iD by updating their GEMS profile under 'Manage my Details' and this will feed automatically into the application form. You have also the option to import your publication record from ORCID iD in addition to PubMed. Please note this is not a mandatory field for submitting your application. For more information and to register please see https://orcid.org/.

Publications and Funding Record

You are asked to include your **10 most relevant publications** to this application, on which you have acted as senior author.

Publications are automatically included in any application created involving the Lead Applicant Researcher. To update this information, edit the 'My Research Outputs' section on the Home page of GEMS. You can then use the Publication selection tool in the relevant section of the application form to select your 10 most relevant publications for this application.

You should also include your **10 most relevant funding awards** as Principal Investigator or Co-Applicant.

For the purpose of this application form, Funding Record details should be added directly on to the application form and will not be pulled through from the 'manage my details' section of GEMS.

Additional evidence of experience and expertise relevant to this application

The Lead Applicant can describe any additional experience or expertise that will provide evidence of their ability to successfully lead the proposed project. For example, previous experience of conducting or evaluating trials and interventions. Please also use this opportunity to describe any career gaps in your CV. The word limit is **400 words**.

1.2 Co-Lead Applicant (if applicable)

Please note, this option is only available where at least one of the Co-Leads is a Health and Care Practitioner researcher practicing in Ireland. Details are requested about the Co-Lead Applicant and must be entered manually, including their name, contact information, institution, present position, employment history, profession and membership of professional bodies position, employment status (contract or permanent), whether they are seeking salary-related costs, and their experience.

1.3 Co-Applicants

The Lead Applicant can add Co-Applicants to an application by entering their name on GEMs, (up to a maximum of 15 co-applicants and collaborators in total).

Co-applicants added at Pre-Application stage are carried over to the Full Application form. Co-Applicants must approve the DIFA Full Application before submission but will not automatically receive an email to inform them of this. **It is the responsibility of the Lead Applicant to contact their Co-Applicants to request that they log in and decide whether to accept or reject their participation and consent to the Full Application being submitted jointly in their name.**

The Lead Applicant may change a Co-Applicant from Pre to Full Application stage (including adding a new Co-Applicant/Collaborator if advised by the review Panel) and this must be suitably justified in the section 'Details of the Research team'. To add a new co-applicant, enter their name on GEMs. If the Co-Applicant is already registered on GEMs, the system will find them and will allow the Lead Applicant to select them. Alternatively, a co-applicant can be added manually by entering their name and email details. GEMs will send them an email with login details for completing the registration process and in the case of a new Co-Applicant will inform them that they have been invited by the Lead Applicant to participate on the application as a co-applicant. PPI Participants can register in the same way as Co-Applicants.

Registered co-applicants can then manage/update their contact details and CVs in 'Manage My Details' and they can decide whether to accept or reject their participation and consent to the application being submitted jointly in their name. If a co-applicant rejects participation on an application the Lead Applicant is informed and may revise the application accordingly. Co-applicants which accept to participate in an application can edit the application. The system will flag through a pop-up warning if another user is working on the application form at the same time. A member of the applicant team may choose to over-ride this pop-up message and continue to enter data but it advisable that they contact the other person directly to avoid losing data when applying the override function.

Host Institution Letters of Support must be provided for **(1) all Lead Applicants in a contract position and (2) Co-Applicants in a contract position who are seeking their own salary.** The formal letter on headed notepaper, dated and signed by the Head of School/Research Centre/Hospital must include the following information; [*Host Institution – insert name*] which is the host institution of [*applicant - insert name*] confirms that [*applicant - insert name*]: (i) holds an employment contract which extends until [*insert date*] or will be recognized by the host institution upon receipt of the HRB ILP award as a contract researcher; (ii) has an independent office and research space/facilities for which he/she is fully responsible for at least the duration of the award, and (iii) has the capability and authority to mentor and supervise post-graduate students and post-doctorate researchers. Electronic signatures are acceptable for letters that are uploaded on the HRB GEMs system.

It is the responsibility of the Lead Applicant to ensure that applications are completed in Full and all necessary documentation is received by the HRB on, or before, the closing dates indicated.

1.3.1 Co-Applicant Contact and CV Details

Each co-applicant can manage their **contact and CV details** (Name, contact information, institution, present position, employment history, profession and membership details of professional bodies) under 'Manage my Details' section of GEMs and this information will be automatically included in any application that involves this individual. **Publications and Funding Record** (5 most relevant publications in peer-reviewed journals and details of 5 past or current grants held (including HRB grants) where the applicant has acted as Lead Applicant or co-applicant) which are most relevant to this application must be added by the Lead applicant under 'add further co-applicant details and will **not** be pulled through from co-applicant CVs. Please state the total number of the co-applicant's peer reviewed publications.

1.4 Collaborators

The collaborators added at pre-application stage can be viewed in Section 4.5 'Details of the Research Team'. The Lead Applicant may change a Collaborator from Pre to Full Application stage, and this must be suitably justified in the section 'Details of the Research team'. The Lead Applicant can add up to a maximum of 15 co-applicants and collaborators in total. Unlike co-applicants, the information for collaborators is not automatically drawn from the 'Manage my Details' section of GEMs but must be entered by the Lead Applicant. The Lead Applicant must enter **contact and CV details** for all collaborators including name, contact information, institution, present position, employment history, profession and membership details of professional bodies, **Publications and Funding Record** (if applicable) (five most relevant publications in peer-reviewed journals and details of 5 past or current grants held (including HRB grants) relevant to this application where the collaborator has acted as Lead Applicant or Co-Applicant).

In addition**,** for each collaborator a signed **Collaboration Agreement Form** must be provided. A template Collaboration Agreement Form is available for downloaded from GEMs. Forms must be completed, signed, dated and uploaded where indicated on HRB GEMs. Electronic signatures are acceptable on letters/forms that are uploaded on GEMs.

2 Study Details

2.1 Study Title

You are asked to provide a title that clearly describes the research to which this application is related. This should be descriptive and concise and should reflect the aim of the project. There is a **200 characters** maximum limit.

2.2 Research Question

Clearly state the research question behind the proposed work. Where the research question for the future DI will be different (in the case of feasibility studies), please also set this out. The word limit is **100 words**.

Briefly explain the study phrased in PICO[21] terms, with reference to the **main research question** (as applicable to your study type):

- **P**opulation: target population
- **I**ntervention: represents the Intervention of interest
- **C**ontrol or comparison: Usually the standard intervention or no intervention
- **O**utcome: expected outcome, leading to effectiveness and cost-effectiveness

The word limit is **100 words.**

Have you searched the COMET database to check whether a Core Outcome Set[22] has been agreed for this area of health? Y/N

Have patients/patient organisations been involved in the development of outcome measures for this study[23] (as appropriate) Y/N

2.3 Acronym

Acronym is optional.

2.4 Study Duration and Start Date

Please indicate the expected length of the proposed study in months and the proposed start date. The HRB expects these awards will typically be between 24 to 48 months in duration (but can be between 12 and 60 months). The earliest start date is May 2023.

2.5 Study Lay Summary

This lay summary is similar to the Study Abstract in that you are asked to describe what you propose to do, say why you think it is important to complete this piece of work and how you are going to go about conducting, analysing and drawing conclusions from the research. The difference is that it needs to be written as a plain English summary such that it is clear, easy to understand, and is easily accessible to a lay audience. It should not be copied and pasted from elsewhere in the application. The lay summary may be used when providing information to the public with regards to the variety of research funded by the HRB and may be posted on the HRB website. A well-written lay summary will enable peer reviewers and Panel members to have a better understanding of your research application. The word limit is **300 words.**

[21] *Nobre MR, Bernardo WM, Jatene FB. Evidence based clinical practice. Part 1—well-structured clinical questions. Rev Assoc Med Bras 2003 October-December; 49(4):445-9.*

[22] An agreed standardized set of outcomes that should be measured and reported, as a minimum, in all clinical trials in a specific area of health. www.comet-initative.org

[23] Plain language animation on outcome sets produced by COMET http://www.comet-initiative.org/resources/PlainLanguageSummary

2.6 Study Abstract

This should be a succinct summary of the proposed research. This structured summary should clearly outline the background to the research, the aims and hypotheses of the project. The objectives of the project and what the work is expected to establish should be described. Ideally it provides a clear synopsis of your application and should set the research application in context. Please label the project as a definitive intervention or as a feasibility study. The word limit is **350 words**.

2.7 Study Type

2.7.1 The study type selected at pre-application stage will feed through into the full application form. It is expected that this will remain the same with exception of cases where applications intend to add or remove a SWAT**.**

2.7.2 Is this a regulated or non-regulated study?

Regulated clinical trials must be conducted under the governance of a CRF/C.

Please upload the Infrastructure Agreement form signed by the CRF/C Director detailing these arrangements in Section 5: Infrastructure and Support

2.7.3 Is this a multicentre study? Y/N

Is Yes, please list all the study sites

2.8 Changes from Pre Application

Please clearly describe any changes from the pre-application submitted. In particular please address the **Panel feedback**, specifying how feedback has been considered for the Full Application. Please outline any changes to the research team and clearly justify where any changes have impacted on the duration of the research.

Reference any new developments relevant to your proposed study that have arisen since the Pre-application was submitted, including other trials that have reported, or emerging evidence which would have a bearing on your proposal. The word limit is **600 words.**

2.9 Keywords

Please enter up to **5 keywords** that specifically describe your research project.

3 Study Description

Please note that the information submitted at Pre-Application stage under the question 'Project Description' will be in a section at the top of this page. This information will **not be visible** to the reviewers and is for your information purposes only. For the Full Application, the Lead Applicant must populate each of the sections within the Study Description.

Please ensure that your application is focused, and that sufficient evidence is provided to enable the international peer reviewers and grant selection panel members to reach a considered judgement as to the quality of your research application, its potential health impact and its feasibility.

The Study Description should include:

- Relevance and rationale for research based on systematically gathered evidence from the literature
- Description of the intervention
- Evidence from previous feasibility studies (for DIs)
- International Study information
- Overall aim
- Objectives and deliverables (including Gantt chart, see template provided)
- Research design and methodological approach, including participant flow diagram
- Internal pilots (if applicable)
- Go/No Go / Progression Criteria
- SWAT
- Public and Patient Involvement
- Impact statement
- FAIR Data Management and Stewardship
- IP considerations
- Trial management, Governance and Safety Monitoring
- Potential risks and ethical concerns
- Biobanking issues
- Sex and/or Gender issues in the study
- Inclusion of under-served groups in the study
- Dissemination and Knowledge Exchange Plan

3.1.1 Relevance and Rationale for Proposed Research

Describe the background to the research proposal and detail the size and nature of the issue to be addressed.

Please address the following:

- State the principal research question being asked.
- What is the rationale for the study?
- Why is this intervention needed? What problem is being addressed? Justify the necessity for the research, both in terms of timeliness and relevance to health of patients/public/health system especially in an Irish context.
- Please address potential benefits and potential harm of the proposed intervention.
- Will the results be generalizable beyond the research setting of the study?

The word limit is **1500 words.**

3.1.2 Description of the intervention

Please describe the intervention you are proposing to trial. The description should include the theoretical basis underpinning the intervention. The word limit is **500 words.**

Note: A logic model outlining the model/theory for change for the implementation of the intervention can be included/uploaded. This diagram should be submitted as a pdf.

Please see Appendix III for resources on logic models.

3.1.3 Are any relevant studies listed on international registries?

(e.g. European Clinical Trials Database (**EudraCT)**, International Clinical Trials Registry Platform (ICTRP). If yes, please provide study registration number(s).

3.1.4 Describe the systematically gathered evidence base for this research such as relevant systematic reviews and other formats of evidence synthesis.

Evidence synthesised systematically to include evidence of (i) a systematic identification of previous work, (ii) critical appraisal, (iii) synthesis of the evidence and (iv) interpretation of findings. Demonstrate why your research is important now, both in terms of time and relevance. Where no relevant published systematic review exists, it is expected that the applicants will undertake a satisfactory review of the currently available evidence using systematic techniques. Simple literature overviews are not sufficient. Applicants must provide a protocol to show how the search was conducted, including literature and clinical trials registries.

The proposed standard for what constitutes a satisfactory review of the existing evidence to inform your research proposal is as follows:

- A relevant Cochrane Systematic Review **or**
- If no Cochrane Review exists, then another systematic review that is published in a peer reviewed journal **or**
- If no published systematic review is identified, then the Lead Applicant and research team should present the findings of a systematic review that they have undertaken for the purposes of the application. Importantly, in this case applicants are required to provide sufficient details of the methodologies employed to allow evaluate confidence in the findings and to allow the review to be replicated. Simple literature overviews are not sufficient.
- Additional evidence may be provided through formal input from relevant Irish patients, service users or carers. However, this does not substitute for systematically gathered evidence.

The word limit is **750 words.**

3.1.5 Evidence from previous feasibility studies (compulsory for DI study)

Include relevant information from previously conducted feasibility studies.

Please address all the following:

- Describe clearly but succinctly the work that was carried out, when, on what groups in which settings and what was learned that facilitated the development of the protocol for the final definitive study.
- Provide details on the screening and recruitment rates achieved during the feasibility study.
- Were progression criteria met?
- Provide assurances that you are confident that the intervention can be consistently implemented as intended.

The word limit is **500 words.**

3.1.6 Pathway to future DI (compulsory for feasibility study)

Provide a brief description of a possible definitive trial of an intervention based on outputs from this proposed feasibility study. Propose **clear Progression Criteria** towards the definitive trial. The word limit is **500 words.**

3.1.7 International study

Is the study part of a larger International Study? Y/N

If Yes, please upload the full protocol and provide a summary of progress to date. If the study is live, please provide a letter from the Chair of the Independent Data Monitoring Committee (IDMC) outlining how the recruitment is progressing and any issues that may be relevant for reviewers.

If your proposal is to add Irish sites to an international study, please make a clear case for undertaking this study in an Irish setting. State with clarity the projected recruitment numbers for the trial overall, and the projected recruitment numbers from Ireland (at the sites listed in sections 2.7.3). Clarify the funding status of the main study, whether it is powered adequately without the Irish component, and clearly articulate how participation from Ireland will add value to the study (e.g. by increasing generalisability to different healthcare settings, including a different sub-population etc.).

Clearly outline what the role of the participants from Ireland will be in the context of the International study (aside from recruitment), and what role the international lead/partner will take in relation to the study in Ireland. The word limit is **500 words.**

3.1.8 Overall Aim

Please state the overall aim of the research project. The word limit is **150 words.**

3.1.9 Objectives and Deliverables

Please add a minimum of 3 research objectives. Objectives should be SMART (**S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**ime-bound). For each objective, list a subset of deliverables which will be used to monitor progress throughout the lifetime of the award if successful. Objectives/deliverables should be mapped against estimated completion timelines in a Gantt chart, and any milestones highlighted.

The word limit is **60 words for each objective and 150 words for the deliverables**.

You must upload a **Gantt chart** which lists the above objectives and deliverables against the estimated timelines for completion, together with any additional milestones/key dates (e.g. PhD submission). Please note that the preparation and submission of Data Management Plans should also be added as deliverables/milestones of the Programme.

Note: Two Deliverables for a Data Management Plan must be included: one at study start, one at the end of the study.

3.2 Research Design and Methodology

The information added at Pre-Application stage under 'brief overview of research design and methodological approach' will be visible here and should be expanded on significantly to give detailed information on the research design and methodology as per the question below.

3.2.1 Research Design and Methodological Approach

Summarise the proposed research plan, providing descriptions of any individual work packages and describe how they integrate to form a coherent research project. Include details of the general experimental approaches, study designs and techniques that will be used. Include details on all stages of the study design including rationale for sampling strategy, justification of sample size and power calculation, details on the design chosen and the intervention, the methods of data collection, measures, instruments and techniques of analysis for quantitative and qualitative designs, outcomes measures, cost effectiveness and data analysis/management plans as appropriate.

Please clearly describe the **healthcare setting** and **how participants will be accessed** as all reviewers will be from outside the Irish healthcare system.

Justify the **choice** of your planned intervention. Please consider following the TIDieR[24] checklist and guide for describing the intervention.

Describe and justify the **design** chosen, the methods you plan to use and the rationale of your choice. Show how your research design will allow you to answer your research question. **You are expected to seek advice and input from an experienced research design and statistics expert at study design phase.**

Please address the following and consider reviewing Appendix II:

- If this is a feasibility study, state explicitly the type of feasibility (see *Eldridge et al 2016*)
- What is the proposed study design (e.g. randomised or non-randomised, conventional parallel group RCT as opposed to cluster, factorial or stepped-wedge design etc.)?
- Describe the population to be studied
- Please consider the age and gender of participants and clearly justify exclusions
- Is subgroup-analysis by gender planned?
- Briefly explain sex and/or gender issues in this study. (See further question 3.11)
- Do the proposed subjects represent your target population?
- What is the planned intervention?
- Have you fully described 'usual care' (if appropriate)?

[24] *Hoffmann T et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ. 2014;348:g1687*

- Describe the healthcare setting in which the intervention will be delivered
- What are the proposed practical arrangements for allocating participants to study groups?
- What are the proposed methods for protecting against sources of bias?
- How variable is the intervention – between sites, over time etc.?
- Are there aspects of context and/or the environment which may impact on the evaluation being undertaken?
- What are the planned inclusion/exclusion criteria?
- What is the proposed duration of intervention period?
- What is the proposed frequency and duration of follow up?
- Discuss the reliability and validity of all study instruments and scales for the intended population
- What are the proposed primary and secondary outcome measures? For surrogate outcome measures, provide evidence of validity. Was patient/patient representatives input sought in relation to the outcome measures?
- Show how the outcome measures chosen will ensure clinical relevance as well as relevance for the patient/target population.
- How will the outcome measures be measured at follow up?
- Are you planning to include health economics and quality of life measures? If yes, provide full details regarding the type of analysis to be undertaken, the rationale of the design proposed, the personnel who will conduct analysis, power calculations and inclusion/exclusion criteria. In cases where one or both of these measures will not be addressed in this study, please explain why.
- What size of the difference is the trial powered to detect?[25]
- What is the proposed sample size and what is the justification for the assumptions underlying the power calculations? Include for both control and intervention groups, a brief description of the power calculations detailing the outcome measures on which these have been based, and give event rates, means and medians etc. as appropriate
- What is the planned recruitment rate? How will the recruitment be organised? Over what time period will recruitment take place?
- What evidence is there that the planned recruitment rate is achievable?
- Are there likely to be any problems with compliance? On what evidence are the compliance figures based?
- What is the likely rate of loss to follow up? On what evidence is the loss to follow-up rate based?
- How many centres will be involved (specify national and international as appropriate)?
- Has acceptability testing been considered?
- What is the proposed type of analyses?
- What is the proposed frequency of analyses?
- Are there any planned subgroup analyses?
- Do you plan a process evaluation?

The word limit is **5000 words.**

- *The HRB encourages the development and application of agreed standardised sets of outcomes, known as 'core outcome sets', such as those reported by the COMET (Core*

[25] As appropriate, see J Cook et al. *DELTA2 guidance on choosing the target difference and undertaking and reporting the sample size calculation for a randomised controlled trial* https://www.bmj.com/content/363/bmj.k3750

Outcome Measures in Effectiveness Trials) Initiative. ***Applicants must search the COMET database when considering which outcomes measures to include***[26]

- *You are advised to carefully address the potential benefits and difficulties presented by multi-site recruitment of patients or human subjects for the study in order to reach recruitment targets.*
- *Explain in detail how new techniques and/or or high-risk studies will be managed and suggest alternative approaches should these fail.*
- *Where new methods are being developed, arrangements for establishing validity and reliability should be described. Examples of non-standard questionnaires, tests, etc. should accompany the application or their content be clearly indicated.*
- *Useful links and resources are summarised in Appendix III.*

3.2.2 Internal Pilots

Internal pilots designed at the early stage of a definitive intervention trial can be included in the main study only where robust feasibility work has been completed and indicates that an internal pilot is appropriate. Details should be provided in Section 3.1.5 "Evidence from previous feasibility studies".

Internal pilot studies designate a portion of the main trial as a pilot phase. At the end of the internal pilot study, the investigators re-compute preselected parameters and recalculate required sample size. The study then proceeds with the modifications dictated by the internal pilot. Final analyses of the results incorporate all data, disregarding the fact that part of the data came from a pilot phase. Those conducting pragmatic trials may wish to consult a published checklist to aid decision-making on whether pilot data can be carried forward to the main trial.[27]

Please note: As part of the Monitoring and Evaluation Framework for DIFA Awards, recruitment and other parameters/activities in the study will be monitored biannually by the HRB.

The word limit is **500 words.**

3.2.3 Go/No Go & Progression Criteria

Go/No Go criteria within the trial are a method to help to determine whether an ongoing trial is feasible to continue. Please specify and provide a justification for appropriate Go/No Go or progression criteria and the timelines for their implementation for your study:

- For the individual participant
- For participating centres, which fail to include the estimated number of participants and
- For the whole trial

[26] www.comet-initiative.org

[27] *G. Charlesworth et al. ACCEPT Acceptance checklist for clinical effectiveness pilot trials: a systematic approach. BMC Medical Research Methodology 2013 13:78*

For example:

- Year 1 - expected recruitment = 50, Go/No criteria = 5
- Year 2 - expected recruitment = 80, n Go/No Go criteria = 30
- Year 3 - expected number of participating centres = 5, Go/No Go criteria = 2

Please describe how these criteria will be overseen by the appropriate governance committee.

Please Note: Go/No Go and Progression Criteria for the most important/fundamental targets to the success of the study should only be included. These criteria will be included in Grant Contracts for successful awards and will be reviewed as part of the post-award reporting and monitoring of successful awards by the HRB.

The word limit is **400 words.**

3.2.4 Studies within a Trial (SWAT)

SWATs should address an independent **methodology research question** on the design, conduct, analysis, reporting or dissemination of trials for which there is current uncertainty[28]. *Please see recently published guidance on how to decide whether a further SWAT is merited on the particular question*[29].

Are you planning to include a SWATs? **Y/N**

If Yes, provide full details regarding the type of analysis to be undertaken, the rationale of the design proposed, the personnel who will conduct, power calculations, inclusion/exclusion criteria and costings as appropriate. Please clarify the relevance to and added value of the proposed SWAT to the main study. An additional €20,000 in funding can be requested for conducting a SWAT, in addition to the overall budget.

Please note: a SWAT should focus on a methodology research question and not on other sub-group analysis. Support by the HRB-TMRN may be provided for DIFA 2023 applications involving SWATs. Check https://www.hrb-tmrn.ie/support/grant-application-support/ for their specific deadlines in relation to support. Please see Appendix III for references on SWATs.

The word limit is **500 words.**

3.3 Participant flow diagram

Please upload a flow diagram showing the study design and the flow of participants. You should refer to the appropriate diagram depending on your study design (e.g. CONSORT for RCTs). Please see

[28] S Treweek et al. *Trial Forge Guidance 1: what is a Study Within A Trial (SWAT)?* https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-018-2535-5

[29] S Treweek et al. *Trial Forge Guidance 2: how to decide if a further Study Within A Trial (SWAT) is needed* https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-019-3980-5

Appendix III for some useful links. This diagram should be submitted as a pdf and be clear as it will be referred to, and likely viewed on screen during the Panel discussion.

3.4 Public and Patient Involvement (PPI) in Research Project

*The HRB recognises that the nature and extent of meaningful public involvement is likely to vary depending on the context of each study. Please note PPI does **not** include the recruitment of study participants in research projects, this is participation of the public rather than involvement. It also does **not** include work aimed at raising awareness of the public around research, such as media publications of research findings, and outreach activities such as open days in research facilities.*

Useful resources including practical examples of involving members of the public in your research can be found in Appendix III. Please be aware there are PPI Ignite Network offices in some host institutions.

Are you including PPI in your application?

If yes, please describe all PPI at each stage of the research cycle:

- Identifying and prioritising the research question
- Design
- Conduct
- Analysis
- Oversight
- Dissemination

For each stage, please include the purpose of this involvement and where applicable how PPI has influenced/changed what work has been planned.

This section should be a succinct summary of public involvement activities. Provide information on the individuals/groups and the ways in which they will be involved. PPI contributors should be representative of the relevant people and communities impacted by the research topic. **Where members of the public, patients or carers are involved, they should be compensated for their time and contributions; this should be reflected in the project budget.**

Please ensure to provide more detail in other sections as appropriate.

Important: The PPI section needs to be written as a plain English summary such that it is clear, easy to understand, and is easily accessible to a lay audience.

If you are not including PPI in your trial, please explain why PPI is not applicable to your project. The word limit is **600 words**.

3.5 Impact statement

The statement should be as specific as possible and provide information that reviewers will find helpful in assessing the potential impact of the proposed research activity. An implementation plan that outlines the pathway to impact citing realistic timelines is requested.

Please provide details on the likely impact from the proposed research on patients, public and/or healthcare system and articulate the pathway by which the research will achieve this. By "Impact" we mean the direct contribution to improvements/benefits to patient care, health of the public and health services from this research in the short to medium term (1-5 years after the end of award). Where impact is mainly anticipated in an Irish context, please describe this for international reviewers and Panel members.

If you are proposing a feasibility study, please articulate the different expected impacts from the feasibility study, as well as the proposed future definitive intervention. The word limit is **500 words.**

3.6 FAIR Data Management and Stewardship

The HRB's policy on management and sharing of research data[30] came into effect on 1st January 2020. In line with this policy, all **successful applicants will be required to submit a completed data management plan (DMP) to the HRB at the beginning of the study and a final updated version of the DMP with the final report at the end of the study.**

Describe the general approach to data management and stewardship that will be taken during and after the projects, including who will be responsible for data management and data stewardship. With the support of data stewards or other data-related services support in the institution (typically library and ICT and digital service, etc) all Applicants should address as much as possible the following points below regarding the management of the research data to be generated and/or re-used during the research project.

Please consider the FAIR Guiding Principles for scientific data management and stewardship: **F**indability, **A**ccessibility, **I**nteroperability, and **R**eusability[31].

1. **Data description and collection or reuse of existing data**: (a) What is the type, format and volume of data? (b) How will the data be collected, created or reused?
2. **Documentation and data quality**: (a) What metadata and documentation will accompany the data? (b) Will you make sure globally resolvable unique, persistent identifiers are in use (e.g DOI)? (c) What data quality control measure do you use?
3. **Storage and backup**: (a) How will data be stored and backed up during the research? (b) How will you take care of data security and personal data protection?
4. **Ethical and legal compliance, codes of conduct**: (a) If personal data are involved, how will you manage compliance with legislation on personal data and security? (b) How will you manage

[30] https://www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-management-and-sharing-of-research-data/

31 Wilkinson, M. D. et al. The FAIR Guiding Principles for scientific data management and stewardship. Sci. Data 3:160018 doi: 10.1038/sdata.2016.18 (2016).

legal issues, such as IPR, copyright, and ownership? Which legislations are applicable? (c) Which ethical issues and codes of conduct are there and how are they taken into account?

5. **Data sharing and long-term preservation:** (a) How and when will you share the data? (b) How do you select data for preservation and where will data be preserved long term (e.g. data repository, archive)? (c) What methods or software tools are needed to access data? (d) How will the application of a unique and persistent identifier (such as a Digital Object Identifier (DOI)) to each data set be ensured?
6. **Data management responsibilities and resources:** (a) Who (for example role, position, and institution) will be responsible for data management (i.e., the data steward)? (b) What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR?

The word limit is **600 words**.

3.7 IP considerations

The Lead Applicant together with the Host Institution has a duty to the public to ensure that discoveries and advancements in knowledge arising from any award are translated for public benefit including but not limited to commercial development of new therapies, diagnostics, materials, methodologies, and software for health[32]. Please consult with the relevant Technology Transfer Office for advice on this section, where appropriate.

Please describe any current Intellectual property (IP) that will be relevant for the study and whether such IP assets are held by the applicants, and/or others outside the research team. Such IP might include software, checklists, scales, protocols, guidelines, questionnaires, or medicinal products for example. Has relevant background IP for your study been identified? If IP is required, is there freedom to operate, such that this research can eventually be translated? What arrangements are in place to manage IP during the study, and ensure it is protected (if appropriate) prior to dissemination? Do you foresee any barriers to use of IP in order for the research outputs to be adopted? The word limit is **500 words**.

3.8 Trial Management, Governance and Safety Monitoring

The HRB requires that all clinical trials and interventions have the appropriate governance arrangements in place before a trial can begin. Arrangements for the management of the trials will vary according to the nature of the study proposed and should be proportionate to the complexity and associated risks. However, all should include an element of expert advice and monitoring that is **entirely independent** of the Lead Applicant, research team members and the institutions involved.

[32] National Intellectual Property Protocol, 'Inspiring Partnership- the national IP Protocol 2016: Policies and resources to help industry make good use of public research in Ireland'

Typically, definitive trials are overseen by three committees[33]: a Trial Management Group (TMG) a Trial Steering Committee (TSC) and an Independent Data Monitoring Committee (IDMC).

Applicants should describe an appropriate oversight and governance structure for their trial.

- Describe the appropriate oversight, advisory or governance structures that will be established to oversee and monitor this trial; e.g. Trial Management Group (TMG) a Trial Steering Committee (TSC) and an Independent Data Monitoring Committee (IDMC)
- Describe the function /role of each Committee / Group
- Describe role of the group members (e.g. sponsor, principal applicant, coordinator, trial statistician, research personnel, collaborators, CRFs) in the day to day management of this study, for all aspects of the study including recruitment, randomisation, management and retention of biological samples, delivery of intervention, follow-up, data entry, quality assurance, data management and analysis.
- Provide details of the membership of the proposed Committees/Groups, including the proposed Independent Chair (as appropriate) where known.
- Outline the processes that will be put in place to ensure that the trial is well managed, commenting on project management, meeting schedules, financial management and monitoring etc.
- If the study is multi-site, or multi-site and international please state any additional measures that will be undertaken to ensure the study is well managed.
- Please list anticipated risks to the successful delivery of the study and how it is planned to mitigate against those risks.

Note: The Terms of Reference for these groups will be requested as part of HRBs post award monitoring of successful awards

The word limit is **2000 words**

3.9 Potential risk and ethical concerns

Please address any potential risk and/or harm to patients or human subjects/participants in the research, if relevant. Please highlight any potential ethical concerns (including work involving animals) during this study and/or at follow-up stage. Describe any potential ethical concerns that may arise as a result of this research, even if not part of this application, and how you propose to deal with them. If the proposed research includes vulnerable groups, what additional considerations are there for these participants? The word limit is **400 words**.

[33] https://www.nihr.ac.uk/funding-and-support/documents/funding-for-research-studies/how-to-apply/NETSCC_Project_Oversight_Groups_Guidance.pdf

3.10 Sample collection for Biobanking

Does your application include an element of formal biobanking? **Y/N**

If yes, please describe how biobanking within this project will be in compliance with international best-practice ethical considerations and the General Data Protection Regulation, in particular in relation to consent.

You must submit a completed **Infrastructure Agreement** form with details of the formal biobank. Please describe how you will ensure good practice for biobanking components in this project, with particular regard to quality of sample collection, processing, annotation and storage. Please reference relevant guidelines/standards you will use. Where material will be obtained or stored for a future research purpose, or where you will use material previously obtained for another purpose, please refer to the latest Recommendation of the Council of Europe[34]. Some useful links are in Appendix III.

Please note: If you are planning to collect samples and preform sample analysis this should be described in the Section 3.2.1. The word limit is **400 words**.

3.11 Gender and/or Sex Issues in the Research Project

A key objective of the HRB is to strive for gender balance in Irish health research. We encourage a balanced participation of genders in all research activities.

Please note this section is intended to focus researchers on the **research content**, and **not** the gender balance within the research team.

Please identify and explain how you address sex and/or gender issues for this project.

Are there potential sex (biological) considerations for this research?

Are there potential gender (socio-cultural) considerations for this research?

- If so, outline how sex and/or gender analysis will be integrated in the design, implementation, evaluation, interpretation, and dissemination of the results of the research application.
- If not, you must clearly demonstrate why it is not relevant to the research application; have you done a literature search to confirm this?

Please see Appendix III for resources on gender and sex considerations in research applications. *Please note this section is intended to focus researchers on the research content, and not the gender balance within the research team.* The word limit is **500 words.**

3.12 Inclusion of Underserved groups

Please describe how you propose to engage with, and improve inclusion of, under-served groups specific to your study and its context. Outline how inclusion of these groups will be integrated in the

[34] https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=090000168064e8ff

design, implementation, evaluation, interpretation and dissemination of the results of the research proposal.

The following groups may be underserved depending on the study and its context*

- Groups by Demographic Factors (Age, Sex, Ethnicity, Education)
- Groups by Social and Economic Factors
- Groups by Health Status
- Groups by Disease Specific Factors

** please note the list of groups is not exhaustive*

The word limit is **500 words.**

Please see Appendix III for information on how to engage in a structured way with groups that may be under-served by trials and interventions inclusion in your area of research.

3.13 Dissemination and Knowledge Exchange Plan

Include a clear dissemination and knowledge exchange plan to indicate how the research outputs you anticipate producing during and after your project will be disseminated and shared and made openly accessible, in line with HRB Open Access Policy[35]. Research outputs include peer-reviewed publications, non-peer reviewed publications and conference proceedings, reports, policy briefings, guidelines, training materials and so on. Protection of Intellectual Property should be considered before data are disseminated[36].

Applicants are advised to consider the following:

1. The HRB has a mandatory Open Access publication policy; demonstrate how you plan to make all publications open access.
2. Who are the various audiences and communities that need to be targeted if these results are to have any impact? What is your dissemination plan to address this, how will these audiences be reached?
3. Describe any plans for technology transfer.
4. Describe how the findings of this research will be publicised to the HSE or international health community/organisations in a manner that will optimise impact on health policy and/or practice.
5. Please reference aspects of the project/study undertaken to maximise chances of adoption beyond the term of the award.

Types of publication routes include[37]:

[35] http://www.hrb.ie/research-strategy-funding/policies-and-guidelines/policies/open-access/

[36] All HRB Host Institutions must subscribe to the National Intellectual Property Protocol, *'Inspiring Partnership- the national IP Protocol 2016: Policies and resources to help industry make good use of public research in Ireland'*, prepared by Government/Knowledge Transfer Ireland to ensure transparent and consistent procedures for managing Intellectual Property from publicly funded research.

[37] https://www.jisc.ac.uk/guides/an-introduction-to-open-access

- **Green Route:** publishing in a traditional subscription journal. Articles are 'self-archived' (added) to a repository (institutional or external subject-based) and usually made available after an embargo period, which is set by the publisher.
- **Gold Route:** publishing in an open access or hybrid journal. Articles' processing charges (APCs) are-required so that the article is openly available immediately on publication and can be added to a repository (institutional or external subject-based).
- **HRB Open Research:** rapid open peer reviewed and open access platform for all research outputs, with all publication charges covered centrally by the HRB at no expense to the grantee. (www.hrbopenresearch.org/).

NOTE: applicants are strongly advised to read the Guidance Notes and in particular the assessment criteria that will be used to assess applications. The word limit is **600 words**.

3.14 Communication with Research Participants

Briefly describe how you plan to communicate with research participants during the study, and once results of the study are known. Please give details of how you plan to do this, who will communicate with participants, and at what intervals communication will occur. The word limit is **200 words**.

3.15 Study Description Upload

A file upload option is available to include an attachment to support your Study Description**.** A **maximum of 5 figures**, which can be a combination of images, graphs, tables, scales, instruments, or surveys, may be uploaded as a single document on HRB GEMS. They must not be embedded within the text of the Project Description. The maximum size is **2MB**. Files should be doc, docx, or pdf.

Additionally, a draft protocol can be uploaded, if available.

3.16 References

A full description of the Publications cited in the Project Description should be provided. You can enter a maximum of **30 publications**. Please enter references in the same format. For example, the following format may be used:

Gallagher PA, Shoemaker JA, Wei X, Brockhoff-Schwegel CA, Creed JT. Extraction and detection of arsenicals in seaweed via accelerated solvent extraction with ion chromatographic separation and ICP-MS detection. Fresenius J Anal. Chem. 2001 Jan 1;369(1):71-80. PMID: 11210234.

For book and printed source citations:

Farrell M, Gerada C and Marsden J (2000) *External review of drug services for the Eastern Health Board*. London: National Addiction Centre.

4 Details of Research Team

For applications utilising the option of two Co-Lead Applicants, information will be requested for each person. Please give high-level details as part of the role description as to how the roles will differ between the two Co-Leads. Please note, this option is only available where at least one of the Co-Leads is a Health and Care Practitioner researcher practising in Ireland.

4.1 Expertise of Research Team

The research team should include the necessary expertise and experience to carry out the study. Please describe how the team has the collective expertise, competencies and experience to successfully deliver this particular study, under the leadership of the Lead Applicant. In particular describe how research design methodological expertise including statistical expertise has been sought and incorporated within the team.Include reference to relevant publications from team members specifying their role in ongoing or previous trial(s) as appropriate. The word limit is **600 words**.

4.2 Lead Applicant's Role

Please indicate the current commitment to research/clinical/teaching/other, either as a percentage or a proportion of a full time equivalent (FTE).

Give an outline of the proposed role of the Lead Applicant in this project on a day-to-day basis. Please indicate below the proposed amount of time to be dedicated to working on **this study,** either as a percentage or a proportion of a full time equivalent (FTE). The word limit is **250 words.**

4.3 Co-Lead Applicants Role (if applicable)

Give an outline of the role of the Co-Lead Applicant in this project on a day-to-day basis including the amount of time to be dedicated to working on this study, either as a percentage or a proportion of a full time equivalent (FTE). The word limit is **100 words**.

4.4 Co-Applicant's Role

For each Co-Applicant, please outline their role in this project on a day-to-day basis, including the amount of time to be dedicated to working on this project either as a percentage or as a proportion of a full time equivalent (FTE). The word limit is **250 words**.

4.5 Collaborator's Role

For each Collaborator, please outline their role in the project. The word limit is **100 words**.

4.6 Funded Personnel

Give full details of all personnel to be funded through this project, including the Lead Applicant if relevant. State the percentage of time each person will spend on the project and describe what aspects of the proposed research they will be involved in over the lifetime of the project.

4.7 Funded Personnel Justification

Note that you must justify the nature of all research personnel relative to the scale and complexity of the project. If funding is requested for known personnel, please include the following details: Name, present position, academic and professional qualifications.

*Note: this scheme is **not framed as a training initiative**. The required expertise, risks and dependencies inherent in clinical trials do not align well with the needs of those registered for a higher degree. Thus, **no PhDs** are funded through this scheme*.

The word limit is **400 words**.

5 Infrastructure and Support

5.1 Host Institution Infrastructure and Support

Describe the infrastructure, facilities, specialist expertise and other support available at the Host Institution and/or at other sites where the research will be conducted. Please include details of critical supports in areas such as statistics, research methods, biobanking expertise or regulatory expertise where this is being provided above and beyond the activities/expertise of members of the research team. The word limit is **400 words**.

5.2 Access to Clinical Research Infrastructures

Applicants are expected to avail of the advice, trial and data management services and/or other forms of support from existing research infrastructures such as a Clinical Research Facility/Centre (CRF/C), Centre for Applied Medical Imaging (CAMI), National Clinical Trials Office (NCTO), the HRB Trials Methodology Research Network (HRB TMRN[38]), a thematic HRB Clinical Trials Network (HRB CTN) or Cancer trials in Ireland Groups, or the National Cancer Clinical Trial Network

Applicants are requested to provide an overview detailing the scope and nature of the engagement (this includes national facilities and/or international facilities and Units/networks as appropriate to the proposed study).

Applicants need to provide an **Infrastructure Agreement form** (including national and international infrastructures as required) setting out the following information:

- Name and address of the infrastructure
- Web links
- Information on the nature and stage/s of the input/advice/collaboration/service
- Rationale for the choice of infrastructure
- Information on the costs of providing the service/input, setting out where this is provided in-kind, from additional funding or requested from the project budget
- Any issues related to feasibility

[38] Support by the HRB-TMRN requires the inclusion of a primary methodological study within a trial (SWAT) or must include a non-standard novel trial design

An Infrastructure Agreement Form can be downloaded from the Infrastructure and Support page of this GEMs application and must be completed for each support service involved. The Form must be completed, signed, dated and uploaded on GEMs. Electronic signatures are acceptable for letters/forms that are uploaded on GEMs. **Applicants must take note of the individual deadlines for application for support from the various infrastructures and contacting these infrastructures should be done as early as possible to avoid capacity issues.**

Please note: In line with the HRB Clinical Trials and Interventions Research Governance Policy **Regulated clinical trials** such as a clinical trial of an investigational medicinal product or a clinical investigation **must be conducted under the governance of a Clinical Research Facility/Centre (CRF/C)**, evidence of which must be provided to HRB in the form of an Infrastructure Agreement Form.

Applications which do not detail such input, advice and/or support (and where this expertise is not clearly evident within the applicant team) should justify why they have chosen not to access such support.

6 Project Budget

Please provide a summary and justification of the costs and duration associated with the project. **The maximum total value of an award is €1,200,000 inclusive of overhead contribution**. An additional €20,000 (inclusive of overheads) can be applied for if conducting a SWAT study (relating to trial methodology research only)[39]. **There is no set limit per annum** therefore the proposed budget per annum should reflect anticipated annual costs.

The budget requested and award duration must reflect the scale and nature of the proposed research and reviewers will thoroughly assess the level of funds and timeframe requested when reviewing the proposal. Please note: salaries should be commensurate with experience. HRB does not expect salaries in excess of IUA Level 3 for trial coordinator/project manager. A higher salary may be allowable for international trials; however, this must be justified in the context of the specific trial, and of the proposed role of the salaried person.

A **full detailed breakdown** of **costings** and **justification for all funding** is required for items listed under each subheading within GEMS. **You are strongly advised to seek guidance from the research office/finance office in the Host Institution** before completing this section of the form to ensure you have appropriately captured costs, in particular related to sponsorship.

[39] Please note that individual proposed SWATs may cost more or less than €20,000; actual costs should be included. The additional budget allowance for SWATs is to encourage and support further SWATs within the HRB-funded portfolio.

Please refer to the HRB-NCTO Budget Checklist for Clinical Trials Costs (https://ncto.digigrow.ie/checklist-for-clinical-trial-costs/) for guidance on clinical trial costs. Please note: some costs listed in the HRB-NCTO checklist are not eligible for HRB funding (e.g. salary or benefits of academic staff within research institutions that are already in receipt of salary or benefits). Additionally, the HRB does not provide salary or buy out time for collaborators.

The HRB will not provide additional funding in the case of either under-estimates or over expenditure.

1. Personnel costs	Must be listed for each salaried personnel under each of the following subheadings (a-c):
a) Salary	Gross Annual Salary (including 5% employee pension contribution) negotiated and agreed with Host Institution. Applicants should use the IUA website scales for the most up-to-date recommended salary scales for academic researchers http://www.iua.ie/research-innovation/researcher-salary-scales/. Please note employee pension contribution of 5% has already been incorporated into the IUA gross salary figure. Applicants are advised that public sector pay increases for the period until end of 2022 have been agreed. Please find new pay scales at https://www.iua.ie/research-innovation/researcher-salary-scales/. If your application stretches beyond 2023; please apply a salary contingency of 2% p.a. **Applicants should include annual pay increments for staff and related costs (pension contribution, employer's PRSI contribution, and overhead contribution) in the budget.** **Note:** The HRB does not provide funding for the salary or benefits of academic staff within research institutions that are already in receipt of salary or benefits. The HRB does not provide salary or buy out time for collaborators
b) Employer's PRSI	Employer's PRSI contribution is calculated at 11.05% of gross salary.
c) Employer Pension Contribution	Pension provision up to a maximum of 20% of gross salary will be paid to the Host Institution to enable compliance with the Employment Control Framework (an additional 5% employee contribution is part of the salary). The level of employer contribution should be in accordance with the model adopted by the Host Institution. If applicable, state the amount of employer contribution based on the pro rata salary and note the % of pro rata salary used to calculate this for reference. Exceptions apply where Circular letter 6/2007 applies. Circular Letter 6/2007 states that the pensions contribution of all Public Health Service employees who, on or after 1 June 2007, are granted secondments or

	periods of special leave with pay to enable them take up appointments with other organisations, including other Public Health Sector organisations, will be increased to 25% of gross pensionable pay. The rate of 25% of gross pensionable pay referred to in this context is the pension contributions to be paid by the body to which the employee is seconded – it does not include any pension contributions which employees make themselves. Where no such arrangements are in place, the HRB will not be liable for costs.
2. Running Costs	For all costs required to carry out the research including materials and consumables, survey costs, travel for participants, transcription costs, trial-specific training for personnel etc. **Please consult with your Host Institution in relation to trial-related insurance costs.** Access to necessary special facilities or services which are not available in the host academic or clinical institutions. i.e., consultancy fees, methodological support, Clinical Research Facilities support, MRI facilities etc. will be considered under running costs as long as they are detailed in an accompanying 'Infrastructure Agreement Form'. Costs associated with compensating PPI contributors involved in your research e.g., consultation workshops, time spent reviewing material, costs of participation in advisory groups, travel expenses, payments for time (in line with your Host institutions policies), etc. should be charged to running costs. The following costs are ineligible and will not be funded: animal study costs, inflationary increases, cost of electronic journals. Note: Please see a list of costs that fall within the overhead contribution below and which should not be listed under running costs.
3. Equipment	Funding for suitably justified equipment can be included in this section. We do not expect equipment costs in excess of €10,000. Personal/Stand-alone computers <u>will not</u> be funded as these are considered a standard piece of office equipment, i.e., overhead. Dedicated laptops or similar equipment that is required specifically for the project because of the nature of the research, will be considered where appropriately justified. All costs must be inclusive of VAT, where applicable.
4. Dissemination Costs	Costs associated with publication of results, seminar/conference attendance (provide details of name and location, where possible) and any other means of communicating/reporting research outcomes as detailed in the dissemination and knowledge exchange plan, as well as costs related to data sharing.

	Please refer to the HRB policy on Open Access to Published Research[40]. Please list dissemination costs under the following categories: publications, conferences, other activities (expanded as necessary). Publications: Typically, the average HRB contribution towards publication costs is €1,750/per article or HRB Open Research: rapid open peer reviewed and open access platform for all research outputs, with all publication charges covered centrally by the HRB at no expense to the grantee. (www.hrbopenresearch.org) free of charge. Conferences: We envisage that conference costs will be typically around €500/year for national conference and €1,500/year for international conference.
5. FAIR Data Management Costs	Costs related to data-related and data management activities in line with best practice of data management and stewardship and the FAIR principles incurred during the lifetime of the project. Please see table below for further guidance.
6. Overhead Contribution	In accordance with the HRB Policy on Overhead Usage[41], the HRB will contribute to the indirect costs of the research through an overhead payment of 30% of Total Direct Modified Costs (TDMC excludes student fees, equipment, and capital building costs) for laboratory or clinically based research and 25% of Total Direct Modified Costs for desk-based research. The following items are included in the overhead contribution: recruitment costs, bench fees, office space, software, contribution to gases, bacteriological media preparation fees, waste fees, bioinformatics access. Therefore, these should not be included in the budget as direct costs.

6.1.1 Additional guidance to FAIR Data Management Costs

People	Staff time per hour for data collection, data anonymisation, etc
	Staff time per hour for data management/stewardship support, training, etc
Storage and computation	Cloud storage, domain hosting charge
Data access	Secondary data access, costs for preparing data for sharing (e.g., anonymisation)
Deposition and reuse	Costs for depositing research data and metadata in an open access data repository

[40] http://www.hrb.ie/research-strategy-funding/policies-and-guidelines/policies/open-access/

[41] http://www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-usage-of-research-overheads/

	Defining semantic models, making data linkable, choosing the licence, defining metadata for dataset, deploying/publishing
Others	Please further explain

Notes	The HRB is currently not covering the cost of long-term preservation of data
	This list is not exhaustive and aims to provide examples only of eligible costs

6.1 Use of Resources

Please demonstrate that the resources requested, plus other in-kind resources where applicable, are sufficient to successfully deliver this study, to target and on time. Please explain how good use is made of the budget requested, sharing resources where it is appropriate. The reviewers will carefully assess costs within the HRB budget for e.g. drugs or devices to be used, so this should be justified in this section. The word limit is **200 words**.

7 History of Application and Other Funding

7.1 History of the application (if applicable)

Please indicate whether this or a similar application has previously been submitted to the Health Research Board in the last three years. If yes, what year and scheme? Briefly describe the changes that have been made to the application. Have the recommendations from any previous peer, panel or public review you received influenced the changes you have made? In instances where your previous proposal was funded, please outline how it contributed to the progression of this research. Where supplemental funding is sought, the rationale for this needs to be clearly articulated and well justified. The word limit is **300 words**.

7.2 Other Funding Sources

Please indicate if you have submitted this, or a similar application, to another funding body previously. Please indicate which funding body, project title, result of submission or when outcome is expected and the amount of award.

7.3 Other Financial Support

Give details of any other financial support or in-kind support available for this or any other related project e.g. existing national or international studies or co-funding from partner organisations. Indicate project title, funding agency, partner organisation or sponsor and the amount of award/co-funding. Failure to disclose accurately or fully may result in your application being deemed ineligible and withdrawn without further review.

8 Ethical Approval, Clinical Trial Approval and Sponsorship

8.1 Ethical Approval

Ethical approval is required for all research work funded by the HRB that involves human participants. In addition, Clinical Trial Approval from the Health Products Regulatory Authority is required for trials involving medicinal products.

8.2 Clinical Trial Approval details

The Sponsorship responsibilities for Clinical Trials of Investigational Medicinal Products (CTIMPs) are governed by the EU Clinical Trial Regulation EU#536/2014. The Sponsorship responsibilities for Clinical Investigation of a Medical Device are governed by the EU Medical Device Regulation 2017/745. For reference to current legislation please visit the HPRA website. Applicants are responsible for ensuring that all necessary approvals are in place prior to the start of the research.

8.3 Letter of Sponsorship Upload

Please review the HRB Clinical Trials and Interventions Research Governance Policy[42]. Please note that all trials (Regulated and non-Regulated) directly funded by HRB are required to have a formal designated Sponsor (as defined in the policy). The Sponsor is responsible for delivering sponsorship oversight throughout the lifecycle of the study. *The HRB cannot act as the sponsor.* The sponsor for HRB-funded trials cannot be an individual or company.

Sponsorship oversight should be planned and put in place for the duration of the clinical trial. The level of oversight required during the implementation of the clinical trial should be assessed carefully and commensurate with the clinical trials risk level. All clinical trials and interventions must undergo a risk assessment (at the Host Institution level) before an application is submitted to support the sponsorship decision and oversight arrangements required[43]. **Lead Applicants should engage with their Host Institution as soon as they are invited to submit a Full Application to ensure sufficient time for this process.**

Please **upload a signed document**, on headed paper from the agreed sponsor. This **Letter of Sponsorship** must (a) confirm willingness to take on the role of the sponsor as defined in the HRB Clinical Trials and Interventions Research Governance Policy, and include details on (b) sponsor responsibilities for the study, (c) any responsibilities delegated to third parties and (d) confirming that the study will be conducted in compliance with Irish and European legislation and guidance and in accordance with the ethical and scientific principles of the Declaration of Helsinki and ICH guidelines.

9 Submission of Full Application

The deadline for submission of complete Full Applications is 15 September 2022 at 13:00.

1. After successful validation, the Lead Applicant may submit the application. It will then be routed to the designated signatory at the Host Institution for their approval.

[42] https://www.hrb.ie/funding/funding-schemes/before-you-apply/all-grant-policies/hrb-policy-on-clinical-trials-and-interventions-governance/

[43] Many HRB Host Institutions contributed to the **Corporate Enabling of Clinical Research** initiative, which included work on common approaches to institutional risk assessments before taking on the role of clinical trial sponsor. For more information see the full 2019 report at https://crdi.ie/corporate-enabling-of-clinical-research/, and contact your Host Institution in relation to their specific requirements

2. If a signatory rejects the application the Lead Applicant will be notified, along with any feedback the signatory has supplied.
3. The application can then be re-submitted; it will be returned to the signatory and will continue through the approval process as before.
4. On completion of the final approval by the Host Institution signatory, a grant application number is assigned to the application.
5. The application automatically gets submitted to the HRB through GEMS for consideration for funding.

Please note that the HRB will not follow up any supporting documentation related to the application, such as Host Institution's Letters of Support, Collaborator Agreement Form, Gantt charts etc. It is the responsibility of the Lead Applicant to upload all supporting documentation prior to submission. If the documentation is not received by the HRB on time, in the correct format or is not properly signed or submitted, the application will be deemed ineligible without further review.

The HRB reserves the right to reject any application that does not meet the terms of this call.

Appendix II: Checklist for Intervention studies (randomised and non-randomised designs)

Regardless of whether your project involves an evaluation of a simple or a complex intervention and regardless of whether it is based on a randomised or a non-randomised design, the review Panels will take into account the following key questions when assessing the application. It is recommended that you use this checklist as a guide before finalising and submitting your application. It is also recommended that you seek advice from individuals or centres that are experts in study design and statistics before submitting your application.

The need for the study

- What is the problem to be addressed?
- What is/are the principal research question(s) to be addressed?
- Does your intervention have a coherent theoretical basis?
- Does the existing evidence – ideally collated from systematic reviews – suggest that it is likely to be effective or cost effective?
- What outcome are you aiming for and how might this bring about change?
- Can it be implemented in a research setting?
- Describe any risks to the safety of participants involved in the trial

The Proposed Study

- Is this a definitive trial or a feasibility study? If a feasibility study, state explicitly the type of feasibility (see *Eldridge et al 2016*)
- What is the proposed study design? e.g. randomised or non-randomised, experimental or observation design, pragmatic or equivalence, conventional parallel group RCT as opposed to cluster, factorial or stepped-wedge design etc.
- What are the planned interventions?
- Have you fully described 'usual care'?
- Indicate the number of subjects to be enrolled (both active treatment and controls)
- What are the proposed practical arrangements for allocating participants to study groups? E.g. Randomization method. If stratification or minimization are to be used, give reasons and factors to be included.
- What are the proposed methods for protecting against sources of bias? e.g. Blinding or masking. If blinding is not possible please explain why and give details of alternative methods proposed, or implications for interpretation of the trial's results
- How variable is the intervention (between sites, over time etc.)?
- Have you adequately described the context and the environment in which the evaluation is being undertaken?
- What are the planned inclusion/exclusion criteria?
- What is the proposed duration of intervention period?
- What is the proposed frequency and duration of follow up?
- Have you discussed reliability and validity of all study instruments or scales?

- What are the proposed primary and secondary outcome measures?
- How will the outcome measures be measured at follow up?
- Will health service research issues be addressed? Justify inclusion/exclusion of health economics and quality of life measures. If these measures are to be included full details should be given including power calculations.
- What is the proposed sample size and what is the justification for the assumptions underlying the power calculations? Include for both control and intervention groups, a brief description of the power calculations detailing the outcome measures on which these have been based, and give event rates, means and medians etc. as appropriate.
- It is important to give the justification for the size of the difference that the trial is powered to detect. Does the sample size calculation take into account the anticipated rates of non-compliance and loss to follow-up given below?
- What is the planned recruitment rate? How will the recruitment be organised? Over what time period will recruitment take place? What evidence is there that the planned recruitment rate is achievable?
- Are there likely to be any problems with compliance? On what evidence are the compliance figures based?
- What is the likely rate of loss to follow up? On what evidence is the loss to follow-up rate based?
- How many centres will be involved?
- Has any pilot or feasibility work been conducted to be confident that the intervention can be implemented as intended?
- Has acceptability testing been considered? What user involvement is there in the study?
- Is your study ethical?
- Are there any local or other contextual issues that need to be factored into the design?

Data Collection and Management

- What are the arrangements for day to day management of the trial? e.g. Randomisation, data handling, and who will be responsible for coordination?
- What arrangements have you put in place to oversee and monitor the evaluation?
- Is there a need for a trial steering Panel or a data safety and monitoring Panel?
- What is the proposed type of analyses?
- What is the proposed frequency of analyses?
- Are there any planned subgroup analyses?
- Will the design chosen really enable you to draw conclusions about effectiveness?

Appendix III: Resources/Useful Links

STUDY DESIGN PHASE

- Defining Feasibility and Pilot Studies in Preparation for Randomised Controlled Trials: Development of a Conceptual Framework by Eldridge S. *et al.* http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150205
- The PRECIS-2 tool: designing trials that are fit for purpose by Louden *et al.* http://dx.doi.org/10.1136/bmj.h2147
- A process for Decision-making after Pilot and feasibility Trials (ADePT): development following a feasibility study of a complex intervention for pelvic organ prolapse by Bugge C *et al*. http://trialsjournal.biomedcentral.com/articles/10.1186/1745-6215-14-353
- Developing and Evaluating Complex Interventions by MRC, UK (further update expected in 2019) www.mrc.ac.uk/complexinterventionsguidance
- Process evaluation of complex interventions: Medical Research Council guidance by Moore e*t al.* http://dx.doi.org/10.1136/bmj.h1258
- Using natural experiments to evaluate population health interventions: Guidance for producers and users of research evidence by MRC, UK www.mrc.ac.uk/naturalexperimentsguidance
- SPIRIT Statement: guidelines for protocol development for interventional trials www.spirit-statement.org
- COMET (Core Outcome Measures in Effectiveness Trials) Initiative: development and application of agreed standardised sets of outcomes, known as 'core outcome sets' http://www.comet-initiative.org/
- SQUIRE Guidelines: provides a framework that authors can use when developing proposals or writing research articles about quality improvement

  www.squire-statement.org
- HIQA Guidelines for the Economic Evaluation of Health Technologies in Ireland (2010) http://www.hiqa.ie/publication/guidelines-economic-evaluation-health-technologies-ireland
- HIQA Guidelines for the budget Impact Analysis of Health Technologies in Ireland (2010) http://www.hiqa.ie/publications/guidelines-budget-impact-analysis-health-technologies-ireland
- HIQA Guidelines for Evaluating the Clinical Effectiveness of Health technologies in Ireland (2011) http://www.hiqa.ie/system/files/HTA-Clinical-Effectiveness-Guidelines.pdf
- The Cochrane Library: online collection of databases in medicine and other healthcare specialties which summarise and interpret the results of medical research. www.thecochranelibrary.com

LOGIC MODELS

- **NIHR**: Creating a logic model for an intervention: evaluation in health and wellbeing
- **University of Wisconsin Madison** https://eudract.ema.europa.eu/results-web/

STUDIES WITHIN A TRIAL (SWAT)

- **Trial Forge Guidance: what is a SWAT**
  https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-018-2535-5
- **SWAT repository**
  http://www.qub.ac.uk/sites/TheNorthernIrelandNetworkforTrialsMethodologyResearch/SWATSWARInformation/Repositories/SWATStore/

REGISTRATION

- **International Clinical Trials Registration Platform**: http://apps.who.int/trialsearch/Default.aspx
- **European Clinical Trials Database** (EudraCT): https://eudract.ema.europa.eu/results-web/
- **All Trials Initiative:** http://www.alltrials.net/

REPORTING

- **Consort 2010 Statement**: updated guidelines for reporting parallel group randomised trials, including extensions for other trial designs. Extensions includes a link for pilot and feasibility studies www.consort-statement.org
- **EQUATOR Network Library for health research reporting**: an international initiative that seeks to improve reliability and value of health research literature by promoting transparent and accurate reporting of research studies
  http://www.equator-network.org/resource-centre/library-of-health-research-reporting/
- **TIDIER Checklist: intended to apply across all evaluative study designs**
  Hoffmann T et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ. 2014;348:g1687

CLINICAL RESEARCH INFRASTRUCTURES

- Health Research Board Trials Methodology Research Network (TMRN)
  http://www.hrb-tmrn.ie
- National Clinical Trials Office (NCTO) https://ncto.ie/
- Health Research Board Clinical Research Facility, Galway (HRB CRFG)
  http://www.nuigalway.ie/hrb_crfg/
- Health Research Board Clinical Research Facility, Cork (HRB CRFC) http://www.ucc.ie/en/crfc/
- Wellcome Trust-Health Research Board Clinical Research Facility, St James's Hospital (WT-HRB CRF SJH) http://www.sjhcrf.ie/default.aspx
- Clinical Research Facility, University College Dublin
  http://www.ucd.ie/medicine/ourresearch/researchcentres/ucdclinicalresearchcentre/
- Clinical Research Centre, Royal College of Surgeons in Ireland
  http://www.rcsi.ie/index.jsp?p=331&n=696

- Clinical Research Support Centre (Northern Ireland) http://www.crsc.n-i.nhs.uk/
- HRB Primary Care Clinical Trials Network (HRB Primary Care CTN) Primary Care Clinical Trials Network Ireland - HRB PC CTNI (primarycaretrials.ie)
- HRB Critical Care Clinical Trials Network (HRB Critical Care CTN) ICC-CTN (iccctn.org)
- HRB Irish Network for Children's Clinical Trials (in4kinds) In4kids
- HRB Diabetes Collaborative Clinical Trial Network
- HRB Infectious Diseases Clinical Trials Network
- HRB Rare Disease Clinical Trial Network
- HRB Dementia Trials Ireland
- Centre for Advanced Medical Imaging, St James' Hospital Dublin http://www.3tcentre.com/
- All Ireland Hub for Trials Methodology Research http://www.qub.ac.uk/research-centres/CentreforPublicHealth/Research/TheAll-IrelandHubforTrialsMethodologyResearch/

PUBLIC, PATIENT AND CARER INVOLVEMENT IN RESEARCH & RESEARCH PRIORITIES

- **The National PPI Ignite Network** Local offices located in DCU, NUIG, RCSI, TCD, UCC, UCD and UL.
- **NIHR PPI resources** https://www.nihr.ac.uk/documents/ppi-patient-and-public-involvement-resources-for-applicants-to-nihr-research-programmes/23437
- **Patient-Centred Outcomes Research Institute (PCORI)** http://www.pcori.org
- **Public Involvement Impact Assessment Framework:** Provides tools for successful involvement of members of the public in research projects and for assessment of impacts. http://piiaf.org.uk/
- **NIHR Payment guidance for researchers and professionals:** https://www.nihr.ac.uk/documents/payment-guidance-for-researchers-and-professionals/27392
- **European Patient Forum Value + Handbook:** For Project Co-ordinators, Leaders and Promoters on Meaningful Patient Involvement. http://www.eu-patient.eu/globalassets/projects/valueplus/doc_epf_handbook.pdf
- **The James Lind Alliance Priority Setting Partnerships:** Research priorities in disease areas set jointly by patients, clinicians, and researchers. http://www.jla.nihr.ac.uk/
- **Campus Engage:** Supporting Irish HEIs to embed civic engagement in their work. Includes resources, how-to-guides, and case studies for engaged research. http://www.campusengage.ie/what-we-do/publications/
- **UK Standards for Public Involvement:** The six UK Standards for Public Involvement provide clear, concise statements of effective public involvement against which improvement can be assessed. https://sites.google.com/nihr.ac.uk/pi-standards/home

INCLUSION OF UNDERSERVED GROUPS IN RESEARCH

- **NIHR INCLUDE Framework** https://www.nihr.ac.uk/documents/improving-inclusion-of-under-served-groups-in-clinical-research-guidance-from-include-project/25435
- **INCLUDE Ethnicity Framework** https://www.trialforge.org/trial-forge-centre/include/
- **Statement by the National Athena SWAN Ireland Intersectionality Working Group** on the Use of Ethnicity Categories in Irish Higher Education Intersectionality-WG-Statement-on-Ethnicity-Categories-in-Irish-HE.pdf (hea.ie)

GENDER AND/OR SEX ISSUES IN RESEARCH

- **Examples of case studies in Health & Medicine where gender/sex in research matters** http://genderedinnovations.stanford.edu/case-studies-medicine.html
- **Gender Toolkit in EU-funded research for examples and guidance** http://www.yellowwindow.be/genderinresearch/downloads/YW2009_GenderToolKit_Module1.pdf
- **Sex/Gender Influences in Health and Disease** https://orwh.od.nih.gov/sex-gender/sexgender-influences-health-and-disease
- **Methods and Techniques for Integrating Sex into Research** https://orwh.od.nih.gov/sex-gender/methods-techniques-integrating-sex-research
- **NIH Policy on Sex as a Biological Variable** https://orwh.od.nih.gov/sex-gender/nih-policy-sex-biological-variable

DATA MANAGEMENT AND SHARNG AND FAIR PRINCIPLES

- **Digital Curation Centre:** How to develop a data management and sharing plan and examples DMPs.http://www.dcc.ac.uk/resources/data-management-plans/guidance-examples
- **FAIR data principles FORCE 11** https://www.force11.org/fairprinciples
- **UK Concordat on Open Research Data (July 2016)** https://www.ukri.org/wp-content/uploads/2020/10/UKRI-020920-ConcordatonOpenResearchData.pdf
- **Guidelines on FAIR data management plans in Horizon 2020** http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf
- **FAIR at the Dutch centre for Life sciences** https://www.dtls.nl/fair-data/
- **Registry of Research Data Repositories** http://www.re3data.org/

RESEARCH DATA MANAGEMENT PLANS

- **Data Stewardship Wizard created by ELIXIR CZ and NL** https://dmp.fairdata.solutions/
- **DMPonline of the Digital Curation Centre (DCC), UK** https://dmponline.dcc.ac.uk/

- **DMPTool of University of California Curation Center of the California Digital Library (CDL), USA** https://dmptool.org/
- **RDMO Research Data Management Organiser of the German Research Foundation, Germany** https://rdmorganiser.github.io/en/
- **Guidelines on FAIR data management plans in Horizon 2020** http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf