



MINISTRY OF HEALTH
SINGAPORE

Grant Call on Caregiving Ecosystem

National Innovation Challenge on Active and Confident Ageing

Public Briefing
5 Apr 2021

House Rules

Please take note of the following house rules:

1. Ensure that your microphones are muted during the session.
2. During the Q&A session, participants should click on the raise hand icon within the Zoom application to raise their questions. The moderator will select and invite the participant to raise his/her question.
3. The moderator will invite the participant to unmute the microphone to pose his/her question. Kindly mute your microphone after speaking please.

Programme

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National Innovation Challenge on Active and Confident Ageing

- The NIC on Ageing was established in Aug 2015 as part of the **Action Plan for Successful Ageing**, to support **multi-disciplinary, translational ideas and research** to transform the experience of ageing in Singapore.
- **Up to \$200 million set aside** to find new ways to solve existing challenges and transform the experience of ageing.

More research into ageing issues:

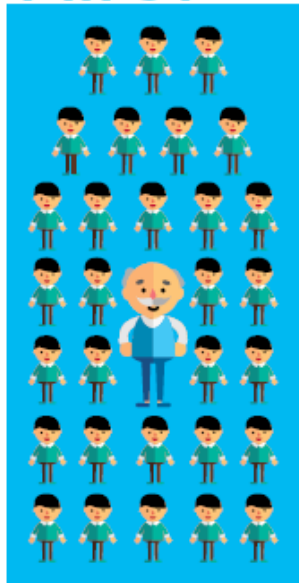
- Up to \$200 million set aside for a **National Innovation Challenge** to catalyse research related to ageing.



Singapore is ageing rapidly

By 2030, there will be over 900,000 Singaporean seniors

1 in 31

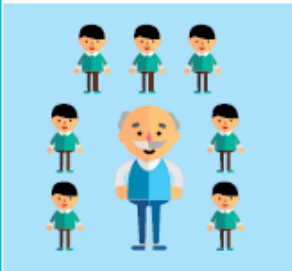


1970

OUR POPULATION IS AGEING RAPIDLY.

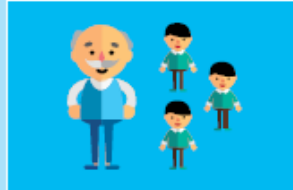
In 1970, **1 in 31** Singaporeans was 65 or older. In 2015, it was **1 in 8**. By 2030, it will be **1 in 4**. We will have over 900,000 seniors, approximately double the current 440,000.

1 in 8



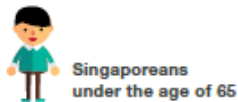
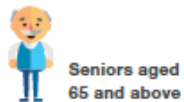
2015

1 in 4



2030

YEAR



Old Age Support Ratio
1:8 (2000) → 1:3 (2030)

83,000 seniors will live alone.

1 in 3 seniors may have ≥ 3 chronic conditions.

We have launched a total of 7 grant calls under Phase 1A

Research Thrust	Grant Call
Ageing in Place	Care at Home Innovation Grant (Aug 2015)
	Enabling Innovation Grant (Nov 2016)
Lengthening Health Span	Grant Call on Cognition (Nov 2015)
	Healthy Ageing Innovation Grant (May 2017)
	Grant Call on Falls Prevention (Sep 2017)
	Grant call on Chronic Diseases Management (Sep 2018)
Productive Longevity	Ageless Workplaces Innovation Grant (May 2016)



Grant Call on Caregiving Ecosystem

- This is our first grant call under Phase 1B of the NIC, under the research thrust of “Ageing in Place”
- The aim of the grant call is to catalyse **multi-disciplinary translational** research and innovation to achieve **sustainable caregiving in the community setting**, whilst addressing the **current and future trends of caregiving in Singapore**.
- This ought to address the needs of caregivers (many of whom may be seniors themselves) and care recipients and translate to **new care models and intervention programmes** that can be **implemented nationally** to strengthen the caregiving ecosystem, with outcomes that are effective and help lower costs at the systems level.
- **Technology should serve as a key enabler** for the proposed solutions/interventions to enhance their impact and scalability.



Challenge Statement

The challenge is to *develop **innovative** solutions on caregiving support that are **sustainable** and **scalable** in the community setting, to address the **multi-factorial needs** of caregivers and care recipients as they evolve over the care journey. The solutions should achieve **better outcomes than currently** in terms of **improving the well-being of care recipients and caregivers, including reducing the number of caregiving hours, hospitalisations or subsequent institutionalisation for care recipients, by at least 25%.***



Examples of Research Projects (1)

Potential Research may include, but are not limited to,

- **A single digital platform to provide the necessary resources and support for caregivers** (e.g. communication portal with medical experts and other caregivers, ILTC online services, scheduling appointments for care recipient, knowledge resource bank), so that caregivers can avoid the hassle of logging in to multiple portals for assistance.
- **Novel models of care services** which factor in disease trajectories and corresponding care pathways / touchpoints, detect evolving needs with the changes in conditions, and activate the community to provide caregiving support, on both a virtual or localised basis.

Examples of Research Projects (2)

- Technology-enabled means of **predicting the trajectory of caregiver and care recipient needs**, with pre-emptive and just-in-time matching of services and resources. E.g. Innovative solutions for systematic data-sharing and tracking on the development of frailty status and care plans for frail care recipients that would facilitate targeted link-ups to timely and appropriate interventions.
- A solution that allows caregivers to be **better prepared for the caregiving journey**.

Eligibility Criteria

- A PI can submit **only one application** in response to the challenge statement. However, he/she may be part of the Project Team of other applications.
- Open to all public and private entities and institutes of higher learning (IHLs), but **Host Institutions must be public entities or IHLs.**
- Applicant applying as Principal Investigator is required to fulfil the following criteria at the point of application:
 - Holds a primary appointment in a local publicly funded institution and salaried by the institution.
 - PIs should have PhD or MD/MBBS/BDS qualifications. (Exceptions would be made on a case-by-case basis).
 - Is an independent PI with a demonstrated track record of research, as evidenced by the award of nationally competitive funding (international funding to be considered on a case by case basis), substantial publication record in the past 3 years, or PI status in research institutes.
 - Has a laboratory or research program in Singapore
 - Holds a minimum of 9 months employment (per calendar year) with local Singapore institution(s). Upon award, the PI must agree to fulfil at least 6 months of residency in Singapore for each calendar year over the duration of the grant award.
 - Has no outstanding reports from previous BMRC, NMRC grants, and other national grants.
 - For proposals involving patients, the PI should be SMC registered; or should be able to demonstrate ability to access patients through SMC registered Co-Is or collaborators.

Project Team Composition

- Required to partner an implementation partner and form a Project Team comprising:
 - Members from **multi-disciplinary** (e.g. pairing medical and technology, engineering) backgrounds; and
 - An **implementation partner*** (e.g. service providers, community organisation) to test-bed the proposed solutions.
- **No restriction on the number** of Institutions, Investigators and Collaborators in each Project Team
- Applicants are expected to **form their own partnerships**.

**At the time of application, PI will need to identify in IGMS whether the implementation partner would be a Co-I or Collaborator.*

Project Funding

- Awardees may qualify for **full funding support of approved qualifying costs** to develop and implement their Research for a **period of up to 5 years**, with the possibility of extension for another 1 year (with no additional funding). **Private entities that are part of the Project Team will be funded at up to 70% of supportable direct costs.**
- Qualifying costs include both **incremental developmental and operating** costs
- Support for **indirect costs**, *on top of supportable qualifying costs*, **is capped at 20% of the supportable qualifying direct costs.** Only Singapore-registered Institutions that are IHLs or not-for-profit entities, including public healthcare providers, may qualify for support for indirect costs.
- Funding will be provided in phases and subjected to the successful attainment of milestones and Key Performance Indicators (KPIs) tied to each phase.
- Funding will be provided on a reimbursement basis, to be claimed via the Integrated Grant Management System (IGMS).

Explanation of Costs

- In general, qualifying costs are **direct costs** that are required to **execute or implement the project**, and are held **accountable to the performance** of the particular Research. These include,
 - Expenditure of Manpower (EOM);
 - Equipment (EQP);
 - Overseas Travel (OT) and
 - Other Operating Expenses (OOE)
- **Indirect costs** are those that are **incurred for common or joint objectives** and therefore cannot be identified readily and specifically with a particular Research, but contribute to the ability of the Host Institution to support the Research. Examples include:
 - General administration and general expenses (e.g. provision of research space)
 - Operation, maintenance, utilities, rental and departmental administration expenses

Project Phases

Project teams will have the **flexibility to decide the time allocated** to the phases as follows:

- **Design phase (Proof-of-concept).** Project teams are to articulate the concept of the programme / service / prototype and the process by which to achieve stated outcomes. Project teams should also provide studies and analyses that support the concept's viability for further development.
- **Development phase (Proof-of-value).** Project teams are to develop and validate the programme / service / prototype so that it takes on a clearer form to achieve the intended outcomes.
- **Implementation phase (Test-bedding).** Project teams are to test and validate the programme / service / prototype in the field (a relevant environment).
- **Scale-up phase (Deployment).** Project teams are to refine and roll-out the programme / service / solution in multiple sites or settings.

Applying via Integrated Grant Management System (IGMS)

- The following files will be available for download from the NMRC (www.nmrc.gov.sg) and IGMS (<https://researchgrant.gov.sg>) websites:
 - IGMS Application Guide
 - Public Document and Application Guide
 - README document
 - (i) Proposal, (ii) CV and (iii) Other Support and Annexes (iv) Declaration and Additional Information (these must be completed and attached in your IGMS application)
 - Prevailing Terms and Conditions
- To submit an application on IGMS, PIs are required to obtain a CorpPass from your institution and this will be used to access/log in IGMS. For more information on how to register your institution's representative as a CorpPass admin or obtain a CorpPass, please visit www.corppass.gov.sg.

Applying via Integrated Grant Management System (IGMS) – cont'd

- For the submitted application to route to NICPO by the deadline of submission, Project Team must identify a local Host Institution Office of Research (HI ORE) with the following roles set up on IGMS:
 - Host Institutional Admin (HI Admin)
 - Host Institutional Director of Research (HI DOR)
 - Host Institution Office of Research (HI ORE)
- The PI should submit only one application on behalf of the Project team using the templates available on the IGMS and upload these documents to the relevant sections in IGMS:
 - Summary Details
 - Research proposal
 - CV template (PI, Co-I/Collab)
 - Other Support and Annexes
 - Declaration and Additional Information
- It is **mandatory** for all applications to be submitted *online via* IGMS by **3 May 2021, 5pm**. Please ensure that all online submissions are **endorsed by the corresponding Host Institution's Research Director by the closing date**.

Project Proposal

- **Objective(s)** of the Project;
- Literature review and the **evidence/basis** for the Research;
- Key **components and innovations** of the Research;
- How the Research could **address the challenge statement**
- Summary of the **implementation plan, timelines and milestones** of the Research
- Project teams should emphasise on the **scalability and proposed plans to ensure widespread adoption of the solution**; and
- Summary of the **evaluation framework and KPIs** to track for the Research.

Additional Guidance (1)

Roles and Responsibilities

- The roles and responsibilities of every Institution, Investigator and Collaborator must be clearly specified.

Proposed Solution(s)

- To articulate in detail the proposed solution and how it can achieve the targeted outcomes/KPIs.
- Project Teams will be expected to test-bed the proposed solution at the implementation phase if awarded the Grant.

Implementation Plan

- Project Teams are required to describe all implementation activities, stages, Milestones and targets.

Additional Guidance (2)

Ethics Consideration

- Expected to ensure the safety and well-being of persons involved in any activity conducted in relation to the NIC is not compromised in any manner whatsoever.
- Ensure that all potential human subjects are assessed by a qualified assessor if necessary, e.g. allied health professional, registered nurse or doctor, to determine the need for and suitability of the prototype (if applicable) before the subjects would use the prototype.
- Take into consideration all applicable laws, including the Human Biomedical Research Act, the Health Products Act, Health Products (Medical Devices) Regulations , Allied Health Professionals Act and the Medical Registration Act to ensure that proposed designs are in line with regulatory requirements.

Mandatory KPIs (1)

KPI 1: Impact

- Project Teams are to demonstrate that the proposed solution has met the needs of caregivers and care recipients.
- Possible KPIs could include:
 - Reduction in caregiving hours
 - Reduction in caregiver stress
 - Improved quality of life of care recipients
 - Better self-care amongst care recipients
 - Increase in number of caregivers who have re-entered the workforce, or continue with employment

Mandatory KPIs (2)

KPI 2: Cost-effectiveness

- Project Teams are to demonstrate that the proposed intervention or solution is cost-effective as compared to existing solutions and interventions or the standard of care.

KPI 3: Quality

- Project Teams are to propose at least three client KPIs to track.
- Possible client KPIs can include:
 - Acceptability by target population
 - Adherence to programme
 - Improvement in functional, physiological, emotional, behavioural, social and cognitive well-being as measured by appropriate tools

Broad Evaluation Criteria

Component	Evaluation Criteria
Grant Requirements	<ul style="list-style-type: none"> • Proposal Submission • Locally-Based Project & Lead Principal Investigator • Team Composition • Address Challenge Statement
General	<ul style="list-style-type: none"> • Expertise and Ability of the Lead Principal Investigator and the team to carry out the proposed research project
Scientific Merit	<ul style="list-style-type: none"> • Address an important problem to yield significant results • Appropriate study design and sound basis for the intervention • Robust methodology and analyses • Advances scientific knowledge, technical capability, and the standard of care
Impact and Outcomes	<ul style="list-style-type: none"> • Impact • Cost-effectiveness of the proposed solution • Proposed outcomes / KPIs • Scalability and sustainability of proposed solution
Innovativeness	<ul style="list-style-type: none"> • Innovative features of the proposed solution, and why are they deemed innovative
Implementation	<ul style="list-style-type: none"> • Project feasibility and adoption in the local context • Reasonableness of funding request

Timeline

Activity	Date
Pre-launch Engagement Session	19 February 2021
Public Briefing	5 April 2021
Call for Applications	6 April 2021
Deadline for Letter of Intent (LOI) Submission	5pm, 3 May 2021
Submission of Full Proposal and Review	June – November 2021
Evaluation and Moderation Process	November - December 2021
Announcement of Results	December 2021 - January 2022

Questions?

For enquiries, please email
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