

## Fifth GACD Funding Call – Scale up

---

### Title

---

Scaling-up of evidence-based interventions at the population level for the prevention or management of hypertension and/or diabetes

### Introduction

---

The fifth [Global Alliance for Chronic Diseases \(GACD\)](#) funding call will support research associated with the scale-up of interventions for the prevention, or detection and management of hypertension and/or diabetes in low- and middle-income countries (LMIC) and/or in vulnerable populations in high income countries (HIC). Both hypertension and diabetes contribute to the growing global pandemic of cardiovascular disease and stroke, which accounts for approximately 18 million deaths a year, nearly one third of total deaths (Roth et al 2017).

Hypertension affects one billion people worldwide and is a major risk factor for cardiovascular disease and stroke. Currently it is estimated that raised blood pressure indirectly kills approximately 8 million people every year (Forouzanfar et al 2017). Not only is hypertension more prevalent in LMIC, but there are more people affected in total because a larger proportion of the population live in those countries than in HIC.

In the past twenty years the global death rate from diabetes has doubled and the World Health Organisation is predicting that this will increase by two thirds by 2030. It is currently estimated that 422 million adults worldwide suffer from diabetes of which 80% are from LMIC. In 2012, an estimated 1.5 million deaths were directly caused by diabetes, and another 2.2 million deaths were attributable to high blood glucose (WHO 2016).

Furthermore, obesity – a major contributor to hypertension, cardiovascular disease and diabetes – is on the rise globally, including in LMIC due to changes in diet, and a move from more agricultural economies to greater industrialization and urbanization (Ford et al 2017).

To avoid significant and growing burdens on future populations, it is critically important to implement strategies that will prevent people from developing hypertension and diabetes and for improving the detection and management of these diseases once onset. Identifying and evaluating interventions to assess efficacy is not always enough to ensure their wide uptake in the real-world. Even when information, tools and interventions have been tested within real-world effectiveness studies, the development of knowledge to support their broader uptake<sup>1</sup> has often remained outside the remit of research. Effectively implementing and scaling-up interventions, programmes, and policies at the regional and national levels is a persistent challenge.

---

<sup>1</sup> For instance: cost and financing of the intervention, provider training, availability of resources, integration into healthcare systems, delivery to vulnerable or difficult-to-reach populations, monitoring the quality of intervention delivery

It is essential that policy makers, communities, families, caregivers, patients, as well as healthcare practice and other settings are equipped with tailored evidence-based strategies to integrate scientific knowledge and effective interventions into everyday practice. Researchers have found it challenging to ensure that tools and interventions deemed efficacious within clinical or community-based studies are readily adopted and implemented. Scaling-up interventions to large populations is not a straightforward task. In practice, translation from a pragmatic trial to the commissioning and continuous delivery of an intervention across a health system is a huge political and economic challenge. Without intentional efforts to guide scale-up, a new evidence-based intervention might not be broadly implemented.

---

**Aims and scope of the funding call:**

Proposals must focus on scalable interventions at the population level for hypertension and/or diabetes prevention or detection and management in LMIC, and/or in vulnerable populations in HIC. Proposals addressing the concurrence of hypertension and diabetes are encouraged as well as those addressing the underlying risk factors of both conditions.

Proposals must align with commitments or planned commitments at a regional or national level to implement evidence-based interventions (including evidence of cost-effectiveness and affordability) across health or other sectors (e.g. education, information technology). In addition to a broad geographic scope, proposals are expected to ensure scale-up covers diverse populations with consideration given to:

- geography (remote, rural, urban);
- demographic mix (gender, age, ethnicity);
- community readiness for intervention;
- political environment; and/or
- other relevant criteria.

Policymakers, intervention payers (excluding research funding agencies), researchers (including local researchers), implementers and beneficiaries should be involved at all stages of the interventions' selection, adaptation and implementation design to identify the challenges to the interventions' delivery in everyday settings. Such partners will be integral to the success and sustainability of the programme, and it is essential that they are engaged early, and participate meaningfully in the design and conduct of the research proposal. Researchers should be closely integrated with the authorities responsible for the programme's delivery. Those authorities must commit to pay for and provide the interventions, possibly through loans contracted from development banks or other financial providers. Proposals will support the conduct of research associated with the scale-up of the interventions.

Proposals must build on evidence-based interventions (including evidence of cost-effectiveness and affordability) for the respective population groups under defined contextual circumstances and should seek to replicate and scale-up comprehensive interventions. Interventions can focus at the individual, community or system level and may combine interventions from different levels. They may target underlying risk factors for the primary prevention of hypertension and diabetes or strategies to delay onset (secondary prevention) or reduce the seriousness of disease (tertiary

prevention). There should be strong evidential support demonstrating that the selected interventions are equitable, safe, effective, and efficient.

The overall intention of proposals is to enhance the scale-up of interventions using an implementation science approach. Implementation science examines what works, for whom and under what circumstances, and how interventions can be adapted and scaled up in ways that are accessible and equitable (please see the [GACD website](#) for further information and resources on implementation science). To achieve this, the research should cover several of the following:

- Identify the best evidence-based interventions and their potential for adaptation to the communities and contexts in which they will be implemented;
- Identify, develop, test, and evaluate, or refine known strategies to scale-up evidence-based practices<sup>2</sup> into public health, clinical practice, and/or community settings at a regional or national level. They may include pilots in multiple settings (using a defined scalable unit), in order to identify optimal scale-up approaches;
- Identify, understand, and develop strategies for overcoming barriers to the adoption, adaptation, integration, scale-up and sustainability of evidence-based interventions across different communities and contexts. It should address a range of scale-up challenges, including complex processes, inefficient use of resources, inequitable allocation of resources, poor design, fidelity and uptake of the intervention, and supply and demand barriers to scale-up and sustainability;
- Identify, understand, and develop strategies for measuring the unintended consequences of intervening at a system level;
- Include assessments of accessibility, reach and health economic assessments as an integral part of the proposed research;
- Evaluate relevant and measurable outcomes (including health outcomes) of the implemented interventions, and their success in scale-up and sustainability. This includes measures of health equity and an understanding of how interventions impact populations differentially.

All proposals should:

- be multidisciplinary and cross-sectorial;
- take into consideration relevant sex and gender and cultural aspects, as well as vulnerable populations;
- promote a culture of evidence-informed learning and effective uptake of results by embedding real time monitoring/evaluation throughout the intervention selection and scale-up process;
- incorporate considerations for capacity building for implementation science and knowledge translation, particularly within the countries where the research will be conducted
- have suitable governance structures in place to ensure oversight, consensus and appropriate engagement of relevant stakeholders throughout the projects

---

<sup>2</sup> For instance: behavioural interventions; prevention, early detection, diagnostic, treatment and disease management interventions; quality improvement programmes

- fully consider ethical issues (e.g., related to research with populations in vulnerable circumstances; potential harmful or inequitable impacts of research outcomes; and appropriate mechanisms for protection of sensitive data while enabling data sharing for research purposes)
- ensure conflicts of interest are appropriately minimized or managed to protect the scientific integrity and credibility of the research and fulfil ethical obligations to research participants, particularly in situations where interventions are supported by the private sector and/or there is the potential for commercial gains.

Proposals may build on previous hypertension and diabetes projects supported under the GACD that have demonstrated their potential for impact, however this is not a requirement of the scheme.

---

#### Expected Impact (one of / or combinations of):

- Enhanced programs and policies that significantly reduce the risk factors for hypertension and/or diabetes.
- Enhanced programmes and policies that significantly reduce the numbers of patients who develop hypertension and/or diabetes through prevention.
- Enhanced programmes and policies that significantly increase the number of patients for whom hypertension and/or diabetes was previously undetected.
- Enhanced programmes and policies that significantly increase the number of patients for whom hypertension and/or diabetes is adequately controlled to reduce the incidence of adverse events.
- Enhanced effectiveness, efficiency, equity and sustainability of systems, to reduce inequalities and promote greater health equity and additional societal benefits, in the medium and long-term.
- Improved health services poised as more responsive to the need of other non-communicable diseases.
- Recommendations to translate findings to other countries or very large regions.
- Contribute to the attainment of the [sustainable development goals for non-communicable diseases](#).

The GACD aims to coordinate research on chronic diseases at a global level in order to enhance knowledge exchange across individual projects, and to better understand the impact of socioeconomics, culture, geopolitics and policy on research findings, so as to appropriately adapt interventions and foster scale-up to different geographical, economic and cultural settings. Research under GACD involves regular exchange of research findings and information across participating projects by means of cross-project working groups and annual joint meetings. Wherever feasible, projects should harmonise and standardise their data collection and exchange data. Applicants must budget for annual costs of having two team members participate in the face-to-face meeting of the Annual Scientific Meeting (location to vary annually).

## Review Criteria

---

---

### Relevance and Quality of Project

- Proposal fits well within the purpose and scientific remit set out in the call;
- The selected intervention is evidence-based, and the proposed work uses established implementation models to explore adaptation and scale-up across relevant communities/context;
- Strong scientific rationale for methodology proposed to address questions or gaps in knowledge that arise from scale up. Success is likely to lead to significant new understanding that is relevant for scientists and knowledge users;
- Proposed implementation and scale-up plans are appropriate and feasible to answer the needs of knowledge user(s) and are considered best in the international field of implementation science research;
- Anticipation of system barriers (health care and other sectors) to implementation of the interventions and quality of plan to manage them; and
- Relevance of the ethical considerations that might arise in the proposed program of research, and how the team plans to address them, including issues of equity and possible conflicts of interest.

---

### Quality of the team

- Multidisciplinary team members have established a high-quality track record in related fields of proposed implementation which is pertinent to evaluative science and they have the right balance of expertise given the goal(s) of the research project;
- Evidence that the research is jointly managed by researchers from high-income countries and LMICs where applicable.
- Early career investigators are part of the team and a strong training plan for research capacity-building is included;
- Evidence that stakeholders such as decision-makers and service delivery partners have been actively involved in the research process including the selection and adaptation of the intervention and the research design; and
- Demonstrable engagement with the public and/or patient and community groups or other relevant stakeholder groups.

---

### Feasibility of Project

- Major scientific, technical or organizational challenges have been identified, and realistic plans to tackle them are outlined;
- Proposed intervention strategies are relevant to the socio-political, cultural, policy and economic contexts of the study settings and proposal demonstrates understanding of the contextual factors (e.g. health systems, intersectoral policy, governance, leadership) affecting implementation, indicating how those factors and their impact will be analyzed;
- Inequities and equity gaps, including sex and/or gender, have been taken into account;

- Appropriate measures of evaluation have been included. Programmes that are able to track long-term clinical, public health, policy and/or health system outcomes are expected;
  - Appropriateness of the governance plan, including evidence of ultimate accountability, shared strategic leadership, transparency in decision making, management of conflicts of interest, clearly defined roles/responsibilities/contributions, demonstrating that all key participants are highly engaged and committed; and
  - Appropriateness of the collaboration plan, including but not limited to communication and coordination, management and administration, conflict prevention/resolution, quality improvement, budget and resource allocation and publication approach amongst team members.

---

### Potential Impact

- Number of the expected impacts as listed in the scope above that project is likely to achieve
- Project demonstrates alignment with international and/or national commitments;
- Project appropriately leverages existing programs and platforms (e.g. research, data, delivery platforms), if relevant;
- The potential for sustaining intervention at scale; and
- The potential for translation of findings into different settings.

---

### References:

Roth GA, Johnson C, Abajobir A, et al. Global, Regional, and National Burden of Cardiovascular Diseases for 10 Causes, 1990 to 2015. *J Am Coll Cardiol*. 2017 Jul 4;70(1):1-25. doi: 10.1016/j.jacc.2017.04.052. Epub 2017 May 17. PMID: 28527533; PMCID: PMC5491406.

Forouzanfar MH, Liu P, Roth GA, et al. Global Burden of Hypertension and Systolic Blood Pressure of at Least 110 to 115 mm Hg, 1990-2015. *JAMA*. 2017 Jan 10;317(2):165-182. doi: 10.1001/jama.2016.19043. Erratum in: *JAMA*. 2017 Feb 14;317(6):648. doi: 10.1001/jama.2017.0013. PMID: 28097354.

WHO Global report on diabetes (2016) 9789241565257: <http://www.who.int/diabetes/global-report/en/>

Ford ND, Patel SA, Narayan KM. Obesity in Low- and Middle-Income Countries: Burden, Drivers, and Emerging Challenges. *Annu Rev Public Health*. 2017 Mar 20;38:145-164. doi: 10.1146/annurev-publhealth-031816-044604. Epub 2016 Dec 23. PMID: 28068485.