The past year has again seen significant progress for the GACD. Particularly exciting is the continued growth in GACD membership with the joining of Argentina. Each member brings a unique perspective, knowledge and challenges related to non-communicable diseases. The Alliance and what it can achieve is strengthened by each and every member and it is my hope that we can continue to involve additional countries, particularly low- and middle-income countries, as we move ahead.

Five years on, I continue to be encouraged by my GACD colleagues, member agencies and friends who have stuck with this experiment-turned-global force. It is my pleasure to present this year’s annual report to provide a snapshot of our growth in 2015 and give a taste for what’s ahead.

In 2015, the GACD marked an exciting year of firsts – the first GACD joint publication in Implementation Science, the first poster competition and the first keynote by a European Commissioner during the our Annual Scientific Meeting – our biggest research meeting yet. I also had the chance to visit GACD research projects on Manitoulin Island, Canada and Zamboanga, Philippines and have been inspired by the commitment of our researchers to serve these communities by tackling their NCD challenges head-on.

As we enter the 5th year of this global initiative, the GACD’s success can be seen at all levels of the organisation. From the Board members, who continue to prioritise GACD investments, inspiring new agencies to join; to the Management Committee, who work to align the life cycle of a research programme; to the researchers, who have formed the most collaborative, open and committed network on the planet; and finally to the Secretariat staff who have got used to the adage that “the only thing that is constant is change.”

Looking ahead, the opportunities for us to expand our reach are abundant, whether through deeper engagement with the WHO Global Coordinating Mechanism or the GACD Joint Peer Review process on lung diseases. And of course, I look forward to seeing many of you in Sydney for the 5th Annual Scientific Meeting in October 2016.

I thank you all for your efforts to ensure the greatest impact of the evidence generated, for those most at risk of facing a chronic disease in their lifetime.

Alain Beaudet, MD, PhD
Chair, GACD Board

The year also saw the launch of a third coordinated research funding opportunity, which focuses on lung diseases. With this launch, the GACD has reached a landmark investment of US$100 million in implementation science on the prevention, management and treatment of chronic diseases. This year’s Annual Scientific Meeting held in Mexico City was a resounding success with the hypertension and diabetes networks coming together for the first time. It was fascinating to see members of our first two networks learning from one another and building the extensive linkages needed for success. It is this community of researchers and decision makers working together under the auspices of the GACD that will truly make an impact on the prevention and management of chronic diseases at local and national levels.

Priorities for the year ahead include the launch of our fourth coordinated call for proposals, further alignment of funding mechanisms across GACD members and enhancing relationships with international organisations that can assist with the scale up of interventions.

I invite you to read the annual report and learn more about the work of the GACD.

Celina Gore
Executive Director
Global Alliance for Chronic Diseases (GACD)
The members of the Global Alliance for Chronic Diseases (GACD) fund coordinated research programmes on non-communicable diseases (NCDs). Our programmes unite research teams in high and low- and middle-income countries, developing capacity and generating results where the evidence gap is greatest.

Currently, our research programmes are investigating how to tackle hypertension and diabetes at project sites within low- and middle-income countries, aboriginal and vulnerable communities in high-income countries. With a focus on implementation science, the GACD research agenda targets what works, for whom and in what context, in order to strengthen the evidence base for policy makers.

Argentina’s Ministry of Science, Technology and Productive Innovation
Australia’s National Health and Medical Research Council
Canadian Institutes of Health Research
Chinese Academy of Medical Sciences
European Commission’s Health Directorate of the Research and Innovation Directorate General
Indian Council of Medical Research
Mexico’s National Institute of Medical Sciences and Nutrition Salvador Zubirán and Mexico’s National Council for Science and Technology
South Africa’s Medical Research Council
Thailand’s Health Systems Research Institute
UK’s Medical Research Council
U.S. National Institutes of Health

The GACD Research Network and Management Committee at the 2015 Annual Scientific Meeting in Mexico City, Mexico.

The GACD Board meeting in December 2015 held in London was the organisation’s largest yet, with all GACD member agencies represented. Also present were designates and observers from UCL and the World Health Organization, representatives from our newest member, Argentina, and prospective member agencies in New Zealand and Japan – 24 attendees in total.

After a lively discussion, which took place at the UK Medical Research Council, the meeting concluded with the handover of the chairmanship from Professor Xuetao Cao of the Chinese Academy of Medical Sciences (Chair 2014-2015) to Dr Alain Beaudet of the Canadian Institutes of Health Research who will now take his position as Chair for the term 2016-2017.

Under Professor Cao’s chairmanship, the GACD has reached a new phase of development. As an established organisation, the GACD is in a strong position to push its partnership model even further to invite new stakeholders to the effort, coordinating the sustained international research collaboration on NCDs worldwide.

Commenting on the handover to a new Chair, Professor Cao said, “Dr Alain Beaudet is a distinguished leader in global health research. He has been a very active Board member of GACD and instrumental in several major strategic decisions. I am very confident that he will do a great job of implementing current GACD strategies, specially integrating multidisciplinary international teams and defining the tipping points for maximum impact in the global fight against major chronic diseases.”

During the meeting it was also announced that Professor Glenda Gray of the South African MRC will be the next Chair Elect of the GACD Board. Professor Xuetao Cao will continue to remain involved in the governance of the GACD and Board, in his new position as Past Chair.

“Professor Cao has been instrumental in increasing GACD’s presence in China and its continued expansion globally.”

Celina Gorre, GACD Executive Director
GACD OVERVIEW

How We Work: In Partnership

- Quarterly Board Meetings allow members to address strategic issues and bring new members into the alliance and leverage national investments in global health.
- The GACD’s unique partnership model emphasises cooperation between investigators in high and low- and middle-income countries.
- In our research projects, investigators and policy makers collaborate from day one.
- We work on harmonising individual agency processes and regulations, and our partnership model improves with continuous knowledge transfer between agencies.

our solution...

GACD: established in 2009 to support coordinated global research on NCDs.

Represents over 80 per cent of all public research funding in the world.

our focus...

We focus on implementation research to tackle the burden of NCDs:

- in low- and middle-income countries.
- Amongst vulnerable populations in high-income countries.

a call to action...

Without action, 388 million people will die of one or more NCD in the next decade.

Our Achievements

- Expanded research programmes, including international programmes on hypertension and diabetes, and a major call to tackle lung disease.
- Stronger together. Successful joint publications demonstrate the power of our research collaboration model.
- Joint scientific meetings, bringing together researchers from around the world. Our Annual Scientific Meeting in Mexico City welcomed 110 researchers, and brought together teams from the Hypertension and Diabetes Programmes for the first time.
- The world is listening. GACD has established a presence at the World Health Organization, the Global Coordination Mechanism on Non-Communicable Diseases, and hosts high-level guests from the European Commission and national health ministries.
- Successful partnership. By emphasising partnership among member agencies, we support the economic, political and cultural diversity of all our members.

As a professional association, clearly there is no comparison. Its richness in diversity, enthusiasm, generosity and academic calibre is simply outstanding.

CÉCERIA Gonzalez, GACD researcher
The GACD held its 4th Annual Scientific Meeting (ASM) in Mexico City in November 2015, hosted by the Mexican National Institutes of Health and the National Council of Science and Technology (CONACYT).

More than 110 researchers from the GACD Research Network attended this year’s 3-day Annual Scientific Meeting – more than double than in previous years – and brought together teams from the Hypertension and Diabetes Programmes for the first time. The integration of these teams resulted in a dynamic knowledge exchange, which promises to be beneficial for the individual research studies.

- The meeting was broken down into three streams - systems change (including task-shifting), mHealth and behaviour change theory design – which enabled a rich and focused discussion among the research teams, including lessons learned from Hypertension Programme studies taken onboard by Diabetes Programme studies.
- Discussion on the cross-cutting theme of context and end-user-orientated design have become increasingly prominent with each successive annual meeting, and are now being addressed through the creation of a new working group.
- The theme of context was a key issue in the joint paper from the Hypertension teams published in the Implementation Science journal – a model for future joint research (see page 18).
- As the GACD Research Network evolves in its discourse on context, and using its focus on chronic non-communicable diseases in LMICs, it is proving to be an important force at the forefront of the emerging science of implementation research across geographies and conditions.

Implementation Science Workshop

The 2nd GACD Annual Implementation Science Workshop was held as a pre-ASM event in the two days leading up to the meeting. The workshop – GACD’s main contribution to capacity building in the field – was led by Prof Brian Oldenburg, and attended by 59 participants from both GACD and external projects.

The workshop introduced global health researchers to the growing field of implementation science. Participants from 16 countries brought their own research design challenges to the workshop and used input from their peers, practitioners and the faculty to improve their approach to specific research questions.

Poster Competition

Congratulations to the winners of the first-ever GACD ASM poster competition. GACD is proud to support the development of research talent on implementation science around the world.

Site Visits

Part of the GACD Annual Scientific Meeting involved visits to 3 of Mexico’s 13 National Institutes of Health facilities in Genomic Medicine, Nutrition and Respiratory Disease.

The group met with the heads of the Institutes who gave presentations and tours of the core facilities and laboratories to get a first-hand look at cutting-edge research being conducted in Mexico.

This enabled GACD researchers from around the world to get an insider’s view into the approaches these organisations take to address different aspects of the global challenge of NCDs in their local context.
The Network
Over the last five years, the GACD Research Programme has gone from a fledgling collection of research teams defined by little more than the word hypertension, to a coherent, international network at the forefront of implementation research in global health. This evolution is partly the result of growth on a number of fronts: Research Network members, Working Groups, and publications, as well as the social network across these teams.

In 2015, the GACD Research Network more than doubled in size from 150 to over 300 researchers, with the integration of 17 new GACD Diabetes Programme project teams with the 15 teams of the Hypertension Programme. During the momentous November Annual Scientific Meeting (ASM) in Mexico City, over one-third of the Research Network gathered together to share study progress, develop new joint work streams, determine synergies across programmes and studies, and explore new collaborations. From 2012 to today, the Research Network members have reinforced a culture of an open, hierarchy-free zone, with constant cross-study, cross-disease learning, frank and honest sharing of the challenges of this new field, and capacity building at all stages of research. By fostering enabling platforms, such as the ASM, Working Groups and Research Network calls, Hypertension Programme researchers have set a tremendous standard of engagement for all Research Network members to follow. And, it was clear from the interactivity among the attendees that this strong culture of engagement has allowed the new diabetes researchers to “get stuck-in” from their very first ASM.

The Working Groups (see pages 12-13) have been a prominent feature of the GACD Research Network from the beginning. The first groups were initially defined by GACD management, but the platform has since morphed into a powerful mechanism for research collaboration, driven by the researchers themselves. The table below illustrates their growth, with researcher-initiated groups starting with the group on RCTs in 2012. The development of these Working Groups also signals a particularly important recognition of what is required to conduct implementation research, as indicated across the GACD. This is a result of the GACD Research Network tackling the issues of how theoretical concepts inform behavioural interventions, as well as identifying and evaluating the context in which the intervention is being implemented. Central to the issue of context, is the question: is the identification and measurement of context possible? Only once this has been addressed would it be possible to identify which elements or levels of context appear most salient, and then to measure or categorise these elements. It is clear that researchers see the GACD as a powerful platform for tackling this issue.

The Work Leads to Context
At this moment in the expansion of the GACD Research Network, a picture is starting to emerge of the characteristics and challenges of implementation science research in LMICs on chronic, non-communicable diseases, which will accelerate the development of the field. A convergence of discussions from the Board, Management Committee and Research Network on scale and sustainability has been observed, as proxies for broad community-wide impact on chronic NCDs. And across these groups, the current question is: when does the ‘research’ stop and the ‘implementation’ start?, bringing the conversation to the issue of context.

The newest Working Group on Theoretical Concepts & Context is a particularly important recognition of what is required to conduct implementation research, as indicated across the GACD. This is a result of the GACD Research Network tackling the issues of how theoretical concepts inform behavioural interventions, as well as identifying and evaluating the context in which the intervention is being implemented. Central to the issue of context, is the question: is the identification and measurement of context possible? Only once this has been addressed would it be possible to identify which elements or levels of context appear most salient, and then to measure or categorise these elements. It is clear that researchers see the GACD as a powerful platform for tackling this issue.

Figure 1. GACD development over time

<table>
<thead>
<tr>
<th>Year</th>
<th>Research Projects</th>
<th>Publications</th>
<th>Annual Research Network Meeting Attendees</th>
<th>Funding Agencies</th>
<th>Working Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>10</td>
<td>20</td>
<td>50</td>
<td>10</td>
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<td>2013</td>
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<td>2015</td>
<td>40</td>
<td>50</td>
<td>125</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

Figure 2. The GACD Researcher Journey
By now, members of the Research Network have had some time to develop a set of GACD norms. Figure 2 below describes the various ways that GACD researchers can engage with the Research Network.

STARTER
1. Sharing protocols and data for joint projects & publications
2. Contributing to the development of the GACD Common Data Dictionaries
3. Attending Annual Scientific Meetings
4. Participating in Research Network Calls

ADVANCED
1. Intellectual contribution to joint publications: texts & other collaborative research outputs
2. Becoming a member of a Working Group
3. Leading a session or being speaker at the Annual Scientific Meeting
4. Development of new work stream (e.g. Implementation Science Workshop)

EXPERT
1. Research programme co-chair
2. Working Group chair
3. Initiating and driving joint articles & other collaborative research outputs
4. Development of new work stream (e.g. Implementation Science Workshop)
GACD Working Groups have been a pivotal mechanism in facilitating ongoing collaborations across sites, diseases, contexts and geographic location. Further to the list of Working Groups provided on pages 10-11, this page provides a brief context and overview of each of the current Working Groups.

**Joint Publications**
Chair: Brian Oldenburg  
Aim: One of the first working groups to be established, the group was originally tasked with developing guidelines and terms of reference (TORs) for publishing joint articles. It has since put together an overview article on the Hypertension Programme, and has been working through the challenges and opportunities of joint authoring within the Research Network.  
Progress: Drafted a review piece on the 15 GACD Hypertension projects. Publication imminent pending responses to review.

**Identifying Barriers to Hypertension Control & Prevention**
Chair: David Peiris  
Aim: To map the barriers and enablers to hypertension prevention and control within the research studies of the working group members. The template was based on the Behaviour Change Framework developed by Prof Susan Michie (UCL). This mapping exercise was published, and opens the door for follow-on research.  
Progress: Published article in Implementation Science in November 2015.

**Theoretical Concepts and Incorporating Context**
Chair: Meena Dalvadanam  
Aim: To describe methods used to measure context incorporated in studies at various levels. The group also aims to identify common methodological and analytical themes across selected projects and case studies for a manuscript on the topic.  
Progress: Established in early 2016. Literature review and gathering of data from across teams underway.

**Process Evaluation**
Chair: Felix Limbani  
Aim: To produce a set of guidelines, structures and practices for process evaluation, as well as aspects to consider during protocol development, implementation, and analysis.  
Progress: Data collection underway. Preliminary analysis will be carried out in 2016.

**Task Shifting/Sharing**
Chair: Rohina Joshi  
Aim: To improve functioning of clinics by providing support to nurses in settings where doctors are not available at clinic level.  
Progress: Mapping exercise conducted and abstract developed.

**Council (Control Unique to CVDS in LMIC)**
Chair: Mayowa Owolabi  
Aim: To develop guidelines for individual and system level control of cardiovascular diseases in developing countries. In the absence of specialised research, evidence and guidelines from LMICs, individual health personnel apply available guidelines from HICs without consideration for local conditions.  
Progress: Initial mapping exercise of working group affiliations completed. Next step is to begin collection of data for development of the CVD roadmap.

**Implementation Science ‘How To’ Paper Series**
Chair: Karen Yeates  
Aim: To develop a series of papers highlighting the less prominent aspects of implementation science often hidden in the main protocol papers. These themes tend to cut across many of the GACD research projects and include:  
- Engaging Policymakers  
- Community Participation  
- Task Shifting  
- mHealth  
Progress: A number of case studies across various modalities collected.
A. HYPERTENSION PROGRAMME

1. Utilising HIV/AIDS infrastructure as a gateway to chronic care in Africa
2. HOPE-4: Developing an innovative strategy for hypertension detection, treatment and control in two middle-income countries
3. DREAM-GLOBAL: Disseminating hypertension - Engaging Action and Management in Gareth’s Upper R in Aboriginal and UMIC
4. School Bus-Act: A school-based education program to reduce salt intake in children and their families (completed)
5. Treating hypertension in rural South Africa: A clinic-based lay health worker trial to enhance community-based outreach services for integrated chronic care

6. Improving the control of HT in rural India: overcoming the barriers to diagnosis and effective treatment
7. A smartphone-based clinical decision support system for primary health care
8. Randomised control trial of early use of a simplified treatment regimen incorporating a half-dose, fixed-in-one blood pressure lowering pill in usual care for improving hypertension control
9. Developing the evidence base for a national salt reduction program for India
10. Cost-effectiveness of salt reduction interventions in Pacific Islands
11. Launching a salt substitute to reduce blood pressure at the population-level in Peru
12. Tailored Hospital-based Risk Reduction to Impede Vascular Events After Stroke (THRIVES)
13. A comprehensive approach to hypertension and control in Argentina
14. A pragmatic individually randomised trial of foot thermometry to facilitate medical treatment and to prevent diabetes in the workplace among South Asians with dual burden of diabetes and obesity in families across Europe
15. Mobile phone text-messaging to support treatment for people with type 2 diabetes in Sub-Saharan Africa: a pragmatic individually randomised trial
16. The Bangladesh D-Magic Trial. Diabetes Mellitus Action Through Groups or Information for Better Control?
17. Implementation of foot thermometry and foot to prevent diabetic foot ulcer
18. Bridging Income Generation with Group Integrated Care (BIGIC)
19. A lifestyle intervention program for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus

B. DIABETES PROGRAMME

21. IHF: A family-based intervention to improve healthy lifestyle and prevent Type 2 Diabetes amongst South Asians with central obesity and prediabetes
22. SMART-ID: A people-centred approach through self-management and professional education for the prevention and management of type 2 diabetes
23. Feasibility of screening and management of diabetes mellitus in primary care settings in China: a pragmatic individually randomised trial
24. Evaluation of a pilot project to prevent diabetes in the workplace using information technology
25. Development of an interactive social network for metabolic control of diabetic patients
27. Development and validation of a software linked to an internet site to facilitate medical treatment and empowerment of the patient with type 2 diabetes, interaction with the medical personnel and the generation of a real time registry
28. Mobile phone text-messaging to support treatment for people with type 2 diabetes in sub-Saharan Africa: a pragmatic individually randomised trial
29. The Bangladesh D-Magic Trial. Diabetes Mellitus Action Through Groups or Information for Better Control?
30. Implementation of foot thermometry and foot to prevent diabetic foot ulcer
31. Bridging Income Generation with Group Integrated Care (BIGIC)
32. A lifestyle intervention program for the prevention of Type 2 Diabetes mellitus among South Asian women with gestational diabetes mellitus

C. LUNG DISEASE PROGRAMME

33. FreshAir: Free Respiratory Evaluation and Smoke-exposure reduction by primary Health Care Integrated groups
34. The TackSHS Project. Tackling second hand tobacco smoke and e-cigarette emissions: exposure assessment, novel interventions, impact on lung diseases and economic burden in diverse European populations
35. Tobacco cessation within TB programmes: A ‘real world’ solution for countries with dual burden of diseases
36. Smoking free Brain: Multidisciplinary tools for improving the efficacy of public prevention measures against smoking

37. Development and validation of a software linked to an internet site to facilitate medical treatment and empowerment of the patient with type 2 diabetes, interaction with the medical personnel and the generation of a real time registry
38. Mobile phone text-messaging to support treatment for people with type 2 diabetes in sub-Saharan Africa: a pragmatic individually randomised trial
39. The Bangladesh D-Magic Trial. Diabetes Mellitus Action Through Groups or Information for Better Control?
40. Implementation of foot thermometry and foot to prevent diabetic foot ulcer
41. Bridging Income Generation with Group Integrated Care (BIGIC)
42. A lifestyle intervention program for the prevention of Type 2 Diabetes mellitus among South Asian women with gestational diabetes mellitus
A. HYPERTENSION PROGRAMME

1 Utilizing HIV/AIDS infrastructure as a gateway to chronic care of hypertensive patients
   Uganda, Rwanda and South Africa
   Aim: To evaluate the effectiveness of active case finding and to improve the management of cardiovascular risk factors in patients attending antiretro viral treatment services.

2 HOPE-4: Developing an Innovative strategy for hypertension detection and treatment in two middle-income countries
   Colombia and Malta
   Aim: To assess the impact of SMS messages on BP control in aboriginal people in Canada.

3 DREAM-GLOBAL: Diagnosing hypertension - Engaging Action and Management in Global Lower BP in 4
   Aboriginal and LMIC
   Aim: To assess the effect of SMS messages on BP control in Aboriginal peoples in Canada and rural Latina communities.

4 School Edu-Salt: A school-based education programme to reduce salt intake in children and their families
   (completed)
   China
   Aim: To assess whether an education programme targeted at primary school children could lower salt intake in children and their families.

5 Treading hypertension in rural South Africa: A clinic-based lay health worker trial to enhance community-based outreach services for Integrated Chronic care
   South Africa
   Aim: To assess the population levels of uncontrolled hypertension, especially in those individuals at greatest risk, for sub-optimal care and the strengthening of management of hypertension in rural areas.

6 Improving the control of HT in rural India: overcomin the barriers to diagnosis and effective treatment
   India
   Aim: To assess the feasibility of implementing a community-based hypertension management system in rural India.

7 A smartphone-based clinical decision support system for primary health care
   India
   Aim: To develop an electronic clinical decision support system which will assist non-physician healthcare providers in making evidence-based management decisions to lower patients’ CVD risks.

8 Randomised control trial of early use of a simplified treatment regimen incorporating a half-dose, three-in-one blood pressure lowering pill vs. usual care for improving hypertension control
   Sri Lanka
   Aim: To investigate the effectiveness, cost-effectiveness, and acceptability of triple pill therapy (Triple BP lowering therapy) compared to usual care for early management of high BP in Sri Lanka.

9 Developing the evidence base for a national salt reduction program for India
   India
   Aim: The overall goal of this 3-year project is to develop the evidence base required to formulate a national salt reduction program for India.

10 Cost-effectiveness of salt reduction interventions in Pacific Islands
   Palau & Samoa
   Aim: To evaluate the impact and cost-effectiveness of multiple intervention strategies to reduce salt in the Pacific Islands.

11 Launching a salt substitute to reduce blood pressure at the population level in Peru
   Peru
   Aim: To implement and assess the impact of an intervention using a salt substitute on blood pressure at the population level using a stepped wedge trial design.

12 Task shifting and blood pressure control in rural Bangladesh - a cluster-randomised trial
   Bangladesh
   Aim: To evaluate the comparative effectiveness of the implementation of the WHO Package targeted of CV risk assessment versus provision of health insurance coverage, and the impact of blood pressure control.

13 LINK: Optimising linkage and retention to hypertension care in rural Kenya
   Kenya
   Aim: To implement a multi-disciplinary implementation-research approach to address the challenge of linking and retaining hypertensive individuals to a hypertension management program.

14 A comprehensive approach to hypertension and control in Argentina
   Argentina
   Aim: To test whether a comprehensive intervention program in national public primary healthcare system will improve the hypertension control among uninsured hypertensive patients and their families in Argentina.

B. DIABETES PROGRAMME

15 Tailored Hospital-based Risk Reduction to Impede Vascular Events after Stroke (THRIVES)
   Nigeria
   Funded by: NHMRC
   Aim: To strengthen capacity for D2HA core through proven strategies like task-shifting to non-physicians for hypertension control in community and health workers, and expanding care network with community-based peer support groups.

16 Improving the Management of Diabetes during Pregnancy in Remote Australia
   Australia
   Funded by: NHMRC
   Aim: To improve systems of care and services for women with diabetes in pregnancy in remote Australia.

17 Systematic Medical Assessment, Referral and Treatment for Diabetes care in China using Loy Family Health Promoters - SMART Diabetes
   China
   Funded by: CAMS, NHMRC
   Aim: To develop the SMARTHealth Diabetes system and determine its clinical impact for people with type 2 diabetes.

18 Effects of information technology-based tools on long-term self-management of diabetic and non-diabetic patients with coronary heart disease
   China
   Funded by: CAMS
   Aim: To evaluate the impact of an interactive social network; and use of the internet to try to control blood pressure in people with diabetes risk in affected type 2 diabetes communities.

19 INDAGO (Integrated Intervention for Diabates risk after Gestational diabetes): An Integrated health system intervention aimed at reducing type 2 diabetes risk in disadvantaged women after gestational diabetes in South Africa
   South Africa
   Funded by: CHIR, BIDC, SAMRC
   Aim: To develop and implement a novel health system intervention to reduce the subsequent risk of developing T2D among women with recent gestational diabetes.

20 Community Health Assessment Program in the Philippines (CHAPP)
   Philippines
   Funded by: CHIR
   Aim: To adapt the elements of the expanded Cardiovascular Health Awareness Program (CHAP) into an intervention package and to middle-income countries (MICS) and evaluate its effectiveness in preventing type 2 diabetes and its complications.

21 HEALTH-T2D - Family-based intervention to improve healthy lifestyle and prevent Type 2 Diabetes among South Asians with central obesity and prediabetes
   India, Pakistan, Sri Lanka & United Kingdom
   Funded by: NHMRC
   Aim: To determine whether a family-based intervention programme delivered by community health workers vs usual care is clinically, cost-effectively and as effective for prevention and risk reduction of T2D.

22 SMART2D - A people-centred approach to testing, treatment and management and reciprocal learning for the prevention and management of type 2 diabetes in sub-Saharan Africa
   South Africa, Sweden, Uganda
   Funded by: EC
   Aim: To improve the effectiveness of sending short message service (SMS) texts in improving health outcomes and supporting medication adherence; to test the impact of this intervention in the context of implementing a low-cost, mobile health programme using community mobilisation in an operational setting.

23 Feel4Diabetes: Promoting healthy lifestyle for families across Europe
   Belgium, Bulgaria, Finland, Greece, Hungary & Spain
   Funded by: EC
   Aim: To develop, implement and evaluate an evidence-based and potentially cost-effective and scalable intervention program to prevent type 2 diabetes among families from vulnerable groups across Europe.

24 Evaluation of a pilot project to prevent diabetes in the workplace using information technology
   Mexico
   Funded by: Consaruy
   Aim: To evaluate on a pilot basis the performance of a work-based e-intervention to prevent diabetes using information technology as means to reduce prevalence of type 2 diabetes.

25 Implementation of foot thermometry and SMS to prevent diabetic foot ulcer
   Peru
   Funded by: NHMRC
   Aim: To compare the incidence of diabetic foot ulcer during the study between the arm that receives thermometry alone and the arm that receives the therapy + messages [SMS and voice messages].

26 Bridging Income Generation with a Multi-disciplined Care (BIGCIP)
   Kenya
   Funded by: NHMRC
   Aim: To identify the contextual factors, facilitators, and barriers that may impact the integration of diabetes microfinance for CVD risk reduction, using a combination of qualitative research methods: 1) baraza (traditional community gathering), focus group) and 2) focus group discussions among individuals with diabetes or at increased risk for diabetes, microfinance group members, and rural health workers.

27 A lifestyle intervention program for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus
   Bangladesh, India
   Funded by: ICMR, NHMRC
   Aim: To evaluate whether a resource- and culturally-appropriate lifestyle intervention program in South Asian countries, provided to women with gestational diabetes after delivery, will reduce the incidence of type 2 diabetes, in a manner that is affordable, acceptable, and scalable.

28 Mobile phone text-messaging to support treatment for people with type 2 diabetes in sub-Saharan Africa: a pragmatic individually randomised trial
   South Africa & Malawi
   Funded by: SAMRC, MRC UK
   Aim: To test the effectiveness of sending short message service (SMS) texts in improving health outcomes and supporting medication adherence and to develop an intervention protocol to achieve the improvements in the context of implementing a low-cost, mobile health programme using community mobilisation in an operational setting.

29 The Bangladesh D-Magic Trial: Diabetes Mellitus Action Through Groups or Information for Better Control?
   Bangladesh
   Funded by: NHMRC
   Aim: To evaluate the impact of a participatory community-based intervention and a mirahk health promotion and awareness intervention on the prevalence of intermediate hyperglycaemia and diabetes in rural Bangladesh.

30 Tobacco intervention within TB programmes: A ‘real world’ solution for countries with dual burden of disease
   UK, Pakistan, Nigeria, Bangladesh
   Funded by: BIDC
   Aim: To evaluate whether tobacco-related lung disease in developing countries by including tobacco cessation policy and microfinance for CVD risk reduction, using a combination of qualitative research methods: 1) baraza (traditional community gathering), focus group and 2) focus group discussions among individuals with diabetes or at increased risk for diabetes, microfinance group members, and rural health workers.

31 Effects of intervention on cardiovascular risk factors in women with diabetes in pregnancy in China (referred to as the Diabetes Prevention in Pregnancy Project in China (DiPPIC))
   China
   Funded by: ICMR, NHMRC
   Aim: To determine whether a resource- and culturally-appropriate lifestyle intervention program in South Asian countries, provided to women with gestational diabetes after delivery, will reduce the incidence of type 2 diabetes, in a manner that is affordable, acceptable, and scalable.

32 Mobile phone text-messaging to support treatment for people with type 2 diabetes in sub-Saharan Africa: a pragmatic individually randomised trial
   South Africa & Malawi
   Funded by: SAMRC, MRC UK
   Aim: To test the effectiveness of sending short message service (SMS) texts in improving health outcomes and supporting medication adherence and to develop an intervention protocol to achieve the improvements in the context of implementing a low-cost, mobile health programme using community mobilisation in an operational setting.

33 FreshAir: Free Respiratory Evaluation and Smoke-exposure reduction by primary Health Care Integrated groups
   The Netherlands, Uganda, Kenya, Malaysia
   Funded by: EC
   Aim: To assess the efficacy of education, advice, and the use of smoke-free rooms, to prevent, diagnose and treat lung diseases in LMICs and other low-resource settings. It adopts and tests innovation and evidence-based practices in the prevention, diagnosis and treatment of lung diseases among vulnerable groups from causes of tobacco consumption and exposure to household air pollution (HAP).

34 The TackSHS Project: Tackling second-hand tobacco smoke and e-cigarette emissions: exposure assessment, novel interventions, impact on lung diseases and smoking cessation in diverse European populations
   Spain
   Funded by: EC
   Aim: To elucidate the comprehensive impact that second-hand smoking (SHS) and e-cigarette emissions have on the respiratory health of the European population and how health impacts vary according to socio-economic parameters with particular emphasis on specific vulnerable groups (patients suffering from pre-existing chronic lung diseases, heavy smokers, and other disadvantaged groups).

35 Tobacco control within TB programme in Cambodia: a ‘real-world’ solution for countries with dual burden of disease
   Cambodia
   Funded by: BIDC
   Aim: To evaluate whether tobacco-related lung disease in developing countries by including tobacco cessation policy and microfinance for CVD risk reduction, using a combination of qualitative research methods: 1) baraza (traditional community gathering), focus group and 2) focus group discussions among individuals with diabetes or at increased risk for diabetes, microfinance group members, and rural health workers.

36 Smoking Free Brain: Multidisciplinary tools for improving the efficacy of public prevention measures against smoking
   Greece
   Funded by: EC
   Aim: To project aims of preventing lung diseases and smoking cessation in Greece at the same time developing new treatments analysing their clinical adaptability to the local and global health care system.
The first GACD joint paper has been published in the November issue of the journal Implementation Science summarising aspects of the work of our Hypertension Programme.

Behaviour change strategies for reducing the blood pressure-related disease burden: findings from a global implementation research programme drew on insights from all 15 projects funded by the Programme, and was led by Hypertension Programme co-chair, David Peiris.

“We are delighted that all 15 GACD hypertension teams worked together on a joint publication in the Implementation Science journal. This research synthesizes knowledge from many different perspectives and is one of few studies of its kind to systematically map behaviour change strategies for hypertension control across the globe. It highlights the strength and breadth of GACD’s work, and the importance of international collaborative research to tackle NCDs.”

The report involved a reflexive mapping exercise to identify the behaviour change strategies undertaken in each of the 15 projects. All of the teams collaborated on this analysis, which enabled them to study aspects of behaviour change across their target populations.

By better understanding the barriers and facilitators to behaviour change, the aim was to learn how innovations for blood pressure control can be introduced and scaled up, and identify what health system elements must be strengthened to improve blood pressure control.

The findings highlight the importance of contextual factors in driving the success and failure of research programmes. There was a marked variation in the preparedness of principal actors to change behaviour across the projects, indicating that the interventions themselves will be variably taken up.

Further evaluations from each project will provide a greater understanding of the factors that might influence the scale-up of intervention strategies.

A key strength of the report was its collaborative nature. Having the ability to gain such insights on an international scale is a powerful demonstration of GACD’s global reach, and illustrates ways in which research can be strengthened to improve blood pressure control.

What do you hope to achieve through your research?

Our research team is evaluating the effectiveness of interventions to reduce salt in real world settings. Through national implementation programmes, we are aiming to achieve an overall reduction in sodium consumption across Fiji and Samoa and to increase the accessibility of reduced sodium products.

Tell us a little more about the project you are working on:

The research project completed Phase 1 (Baseline Assessment) in 2013, with the collection of baseline data on sodium intake, along with a Food Frequency, and Knowledge, Attitude and Behaviour Questionnaire, and a supermarket survey and food analysis. Following this, a multi-sectoral intervention period, targeting consumers and food businesses was rolled out. The project is currently in Phase 3 (Follow-up Monitoring) to measure the impact of the intervention.

How has being part of GACD helped your research?

GACD provided an opportunity for funding for Pacific Island countries like Fiji and Samoa to collect national salt intake data, carry out a national level multi-sectoral intervention and to measure its impact. GACD has also provided a platform to network with experts and highly experienced researchers. Being able to share opportunities and challenges with other GACD project teams, through the newsletters, regular teleconferences and participation in the annual meetings has helped us to realise that we are not unique in our challenges, and it has offered solutions and inspired us to move forward in overcoming barriers.

What do you enjoy most about your work?

Working with a dynamic and passionate team, locally and globally. Also knowing that the entire team is working towards achieving a positive health outcome by reducing sodium intake in the Pacific Islands.

Apart from the project, what are your other passions in life?

A peaceful walk along the seawall, a steaming cup of coffee and a great novel.

Can you name someone who has inspired you in your life and work?

My parents – who despite having no formal education, believed in and valued education and supported me through mine despite all difficulties. Steve Jobs – who inspires me to give a great presentation. “There is an opportunity in every challenge” is something I was once told, and this has become my motto in work and life.”

Arti Pillay is a Research Fellow at the Pacific Research Centre for the Prevention of Obesity and Non-Communicable Diseases (C-POND) at Fiji National University. The Centre, in collaboration with the George Institute of Global Health and Deakin University, was awarded a National Health and Medical Research Council / GACD grant to carry out a study on the “Cost Effectiveness of Salt Reduction Interventions in Pacific Island Countries,” specifically in Fiji and Samoa. Arti is mainly involved in Fiji, working closely with the Ministry of Health.
In 2014/15, the GACD launched its call on chronic lung diseases in response to the growing burden of respiratory illness globally. The focus of this call is to address chronic lung diseases which have environmental exposures such as indoor, outdoor and occupational air pollution, and/or smoking, as a major risk factor.

As the first member to complete its funding cycle, the European Commission has awarded funding to four projects which aim to address the burden of tobacco and household air pollution related lung diseases, both in vulnerable populations in Europe and in a number of low- and middle-income countries. Over the course of 2016, other GACD member agencies will announce the grants that they have awarded. All funded research studies will make up the GACD Lung Diseases Programme and join the current hypertension and diabetes researchers within the GACD Research Network.

All funded research projects are selected through rigorous peer review in which independent experts assess the quality and relevance of the research proposals. Four of the GACD member agencies are organising this review jointly, building on the experiences from their collaboration on the joint peer review for the previous diabetes call.

Why lung diseases?
Worldwide 235 million people are affected by asthma. 64 million people suffer from chronic obstructive pulmonary disease (COPD), 90% of which live in low- and middle-income countries.

COPD is preventable. The primary cause of COPD is tobacco smoke; other risk factors include outdoor and indoor air pollution.

WHO projects COPD will be the 3rd leading cause of death worldwide by 2030

Argentina’s Ministry of Science, Technology and Productive Innovation (MINCYT) has joined the GACD as its newest member.

Argentina has become the GACD’s eleventh member agency, joining public health research funders from around the world. The country already has a strong history of forming international partnerships, including with the EU. Argentina joins as the first country from South America, opening up a new region for international research collaboration for the GACD.

Joining the GACD will create valuable opportunities for Argentinian researchers to collaborate with other international experts and to further advance the area of implementation science. Argentina has a long tradition of outstanding research and we are hoping that our involvement with the GACD will create mutual benefits and lead to positive health outcomes.

Agueda Menvielle, National Director of International Relations, Ministry of Science, Technology and Productive Innovation (MINCYT), Argentina

“We are delighted to welcome Argentina to the GACD. By joining the alliance they are becoming part of a unique global network of funders who are jointly supporting research that will generate evidence to address implementation challenges in the area of non-communicable diseases (NCDs). With the burden of these diseases increasing and threatening the health as well as the economic development of many nations, we are pleased that Argentina has joined our collective efforts to build this evidence base to enable policymakers around the world to tackle the global NCD epidemic.”

Dr Xuetao Cao, Outgoing Chair of the GACD and President of the Chinese Academy of Medical Sciences

Sources:
http://www.who.int/respiratory/copd/en/
http://www.who.int/mediacentre/factsheets/fs315/en/
http://www.who.int/mediacentre/factsheets/fs307/en/
Reflecting on GACD’s achievements so far, Past Chair Professor Xuetao Cao noted that GACD has reached several major milestones: integrating global resources with a multi-agency funding mechanism, developing shared strategic goals, initiating joint scientific reviews, building international multidisciplinary teams, and promoting implementation science on a truly global scale.

A key challenge for the future, says Professor Cao, will be getting NCDs higher on the agenda of low- and middle-income countries.

“NCDs are high on the agenda in the developed countries due to the increased economic and social burden of NCDs, but not high enough for low- and middle-income countries. The key is to have sound strategies and effective implementation plans to prevent NCDs.”

Speaking of his personal highlights as Chair, Professor Cao had warm praise for the GACD family:

“I am very impressed by the passion and dedication of the GACD family.”

Looking to the future, new Chair Dr Alain Beaudet says the very health of the organisation, with new members continuing to join, presents a challenge in itself:

“GACD is growing rapidly – this is both exciting and challenging. Growth is good news, but there are a much larger number of funders around the table now, and we need to maintain strategic and effective decision making – something that’s more challenging in a larger organisation.”

For Dr Beaudet, focusing on key areas – and building on successes – will be the next big steps:

“What we did is decide to define a niche, which I think has been our most important lesson. Don’t try to boil the ocean: find the area where we can make a difference. In our case, it was implementation science – in its early days at the time – but a field which has developed with us.”

Another question for GACD is how far to go in including research users in projects. We haven’t gone far enough yet, says Dr Beaudet:

“In some cases we’ve been doing research for research users – and the fact is not all research users are equal, as we know. So for the future it’s important to think about how we can focus on, and involve, research users even more than we have been doing.”

As Chair Elect of GACD, Professor Glenda Gray is in the position of being able to take a long view. So where, in her estimation, should GACD be heading in the next ten years? If research is at the heart of GACD, partnerships are the organisation’s lifeblood. So a key question will be how to build on the worldwide networks that have developed so successfully in the Hypertension and Diabetes Programmes, says Professor Gray:

“Our partnerships are critical. The more partners we have, the more we open ourselves to innovative thinking. Partnerships are very important because all partners can benefit – partnerships can build more sustainable research, both for poorer countries which don’t have resources, and for developed countries which need implementable solutions. Developing and sustaining our partnership model is going to be a key task for the future.”

As GACD grows and develops – and the impact of its collaborative research is felt – its influence on the world stage is likely to grow too, says Professor Gray. So in the long-term, GACD is poised to have a greater impact not only in research, but in advocacy and policy change as well:

“Because of the unique design of the GACD we have a huge advantage, in that we are made up of major international government-funded research bodies, and other important national research organisations. So we are in a unique position in this alliance to influence policy change, both through the work of national research bodies, and through making our voice heard internationally.”

One thing is certain, as GACD continues to grow, the original vision of its founders – of joint international funding to tackle the rising epidemic of non-communicable diseases – has been realised. GACD now represents the frontline of a joined-up global effort in the fight against NCDs.
GACD FINANCIALS

GACD members are supporting chronic disease research projects in various countries. The total funding for all programmes is projected to be US$100 million by the end of 2016: US$23 million for the current GACD Hypertension Programme for projects lasting between 3 and 5 years, US$27 million for the Diabetes Programme, and approximately US$50 million is committed for the Lung Diseases Programme.

The GACD Secretariat is supported financially through annual membership fees by the Alliance members. Being based at the UCL Institute for Global Health, the Secretariat operates within the remits of UCL’s financial policies and procedures. Almost two thirds of the Secretariat budget are spent on staff costs, with the remainder covering operational costs, meeting and travel costs as well as overheads.

GACD Secretariat Expenditure 2015

<table>
<thead>
<tr>
<th>Income 2015</th>
<th>£373,519</th>
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<tbody>
<tr>
<td>Member Contributions</td>
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</table>

Expenditure 2015

<table>
<thead>
<tr>
<th>Permanent and Temporary Staff</th>
<th>£196,169</th>
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<tbody>
<tr>
<td>Operational Costs</td>
<td>£98,646</td>
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<tr>
<td>Travel</td>
<td>£27,660</td>
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<tr>
<td>Overheads</td>
<td>33,692</td>
</tr>
<tr>
<td>Total Expenditure</td>
<td>£356,167</td>
</tr>
</tbody>
</table>

How does GACD address the problem?

The GACD has so far established research programmes on diabetes and hypertension, involving more than 400 researchers from more than 30 countries. In 2016, a lung diseases programme will be launched. Collectively, GACD members are spending more than US$50 million on research in low- and middle-income countries and with vulnerable populations in high-income countries, which is set to double in 2016. GACD funded research aims to contribute to the area of implementation science and address the significant knowledge gap between interventions that research has shown to be effective, and their delivery to communities and translation into practice.

Between 76% and 85% of people with severe mental disorders in low- and middle-income countries receive no treatment for their mental health conditions. Tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets all increase the risk of dying from an NCD.
GACD Board
The Board has the ultimate authority over the Alliance’s vision, values and overall governance framework. The Board works in collaboration with UCL representatives to develop and implement GACD policies. Current GACD Board members are:

Dr Alain Beaudet, Canadian Institutes of Health Research, Canada (Chair)
Professor Glenda Gray, Medical Research Council, South Africa (Chair Elect)
Professor Xuetao Cao, Chinese Academy of Medical Sciences, China (Past Chair)
Dr Ruxandra Draghia-Akli, Health Directorate at the Research & Innovation DG of the European Commission
Dr Soumya Swaminathan, Indian Council of Medical Research, India
Dr Mark Palmer, Medical Research Council, United Kingdom
Águeda Suarez Porto de Menvielle, Ministry of Science, Technology and Productive Innovation, Argentina
Dr Roger Glass, National Institutes of Health, United States
Dr Guillermo Ruiz Palacios, National Institute of Medical Science and Nutrition Salvador Zubirán, Mexico
Professor Anne Kelso, National Health and Medical Research Council, Australia
Professor Dame Anne Johnson, University College London (Host Institution Representative)
In addition, the World Health Organization (WHO) has observer status on the GACD Board.

GACD Management Committee
The Management Committee is responsible for the oversight, management and coordination of the portfolio of research awards made under the umbrella of the Alliance. Current Management Committee members are:

Dr Karim Berkouk, Health Directorate at the Research & Innovation DG of the European Commission (Chair)
Dr Prashant Mathur, Indian Council of Medical Research, India (Deputy Chair)
Dr Nancy Edwards, Canadian Institutes of Health Research, Canada
Professor Lixin Jiang, Chinese Academy of Medical Sciences, China
Dr Johan Louw, Medical Research Council, South Africa
Dr Daniel Gomez, and Monica Silenzi, Ministry of Science, Technology and Productive Innovation, Argentina
Dr Tony Willis, National Health and Medical Research Council, Australia
Dr Joshua Rosenthal, National Institutes of Health, United States
Margarita Irene Calleja y Quevedo, National Council for Science and Technology (CONACYT) and Dr Carlos Aguilar Salinas - National Institute of Medical Science and Nutrition Salvador Zubirán, Mexico

GACD International Secretariat
The Secretariat serves as the administrative hub for the GACD member agencies, funded research teams and host institution, and represents the Alliance externally. Current staff members are:

Celina Gorre, Executive Director
Dorothea Kanthack-Chan, Senior Programme Officer
Rosie Bartlett, Communications Manager
Gary Parker, Research Coordinator
Faye Bassett, Executive Coordinator

GACD Management Committee