

Developing collaborative approaches to international research: Perspectives of new global health researchers

Paula Godoy-Ruiz^{a,b,*}, Donald C. Cole^c, Lindsey Lenters^d and Kwame McKenzie^{a,e,f}

^a*Social Aetiology of Mental Illness Program, Centre for Addiction and Mental Health, Toronto, ON, Canada;* ^b*Global Health Program, Department of Family and Community Medicine, University of Toronto, Toronto, ON, Canada;* ^c*Dalla Lana School of Public Health, University of Toronto, Toronto, ON, Canada;* ^d*Centre for Global Child Health, The Hospital for Sick Children, Toronto, ON, Canada;* ^e*Department of Psychiatry, University of Toronto, Toronto, ON, Canada;* ^f*Wellesley Institute, Toronto, ON, Canada*

(Received 21 April 2014; accepted 7 October 2014)

Within a global context of growing health inequities, the fostering of partnerships and collaborative research have been promoted as playing a critical role in tackling health inequities and health system problems worldwide. Since 2004, the Canadian Coalition for Global Health Research (CCGHR) has facilitated annual Summer Institutes for new global health researchers aimed at strengthening global health research competencies and partnerships among participants. We sought to explore CCGHR Summer Institute alumni perspectives on the Summer Institute experience, particularly on the individual research pairings of Canadian and low- and middle-income countries researchers that have characterised the program. The results reveal that the Summer Institute offered an enriching learning opportunity for participants and worked to further their collaborative projects through providing dedicated one-on-one time with their international research partner, feedback from colleagues from around the world and mentorship by more senior researchers. Positive individual relationships among researchers, as well as the existence of institutional collaborations, employer and funding support, and agendas of local and national politicians were factors that have influenced the ongoing collaboration of partners. There is a need to more fully examine the interplay between individual and institutional-level collaborations, as well as their social and political contexts.

Keywords: global health; partnerships; developing countries; international cooperation; research training

Background

Global health research partnerships in a context of health inequities

In the twenty-first century, health inequities continue to escalate on a global scale (Frenk et al., 2010). Both high- and low-income countries are faced with great challenges in ensuring high-quality and accessible services for their populations. Challenges include ageing populations, deteriorating environments, deepening of poverty and social exclusion, increasing prevalence of non-communicable and chronic diseases, new and resurgent infectious disease, and misdistribution of health-care services (Fried, Piot, Frenk, Flahault & Parker, 2012; Globalization Knowledge Network, 2007; Labonte,

*Corresponding author. Email: paula_godoy@hotmail.com

Mohindra, & Lencucha, 2011). Within the context of growing health inequities, collaborative research can play a critical role in improving health, equity and development (Hanney & Gonzalez-Block, 2006; Hanney, Gonzalez-Block, Buxton, & Kogan, 2003; Nuyens, 2005). International research partnerships across income divides can make important contributions to the examination of policies and practices, which have the potential to reduce worldwide health inequities, particularly the greater burden of disease in many low- and middle-income countries (LMICs) (Airhihenbuwa et al., 2011; Joss & Keleher, 2011; Maziak, Ward, Eissenberg, Klesges, & Keil, 2004; Van den Broucke et al., 2010).

The notion of working in partnerships has become a commonplace response for addressing a wide array of economic, environmental, social and health problems (Horton, Prain, & Thiele, 2009) including global public health (Daulaire, 2008). It is argued that communities around the world are facing challenging health problems with complex socio-economic and environmental components, many of which have not responded to top-down or single-solution programs. Consequently, funders and communities have increasingly turned to partnerships as a means of addressing these complex issues (Barrett, Crossley, & Dachi, 2011; Oni et al., 2011; Weiss, Anderson, & Lasker, 2002). Agencies – public and private – often make collaborations and partnerships a condition of financial support for health initiatives (Weiss et al., 2002). Partnerships are held as essential for enhancing the capacity of people and organisations to achieve health and health system goals (Joss & Keleher, 2011; Schiavon & Westley, 2008; Weiss et al., 2002).

Yet, important criticisms of partnerships exist. The concept of partnerships tends to be used broadly to refer to a range of types of collaborations from consortia, to coalitions, and alliances (Weiss et al., 2002). Bezanson, Narain, and Prante (2004, preface) argue that:

The very term ‘partnership’ is vague and can span objectives that range from – at the lower end – information sharing and ‘getting to know each other better’, to learning about how two parties may work together, to specific actions of an interdependent nature that assign responsibilities and accountabilities to two or more parties, to – at the higher end – an almost seamless blending of actors. (Bezanson et al., 2004)

Others note a lack of evidence surrounding the effectiveness of partnerships in improving health status and systems worldwide (Crane, 2010; Smith et al., 2009). Jentsch and Pilley (2003) question the extent to which ‘North-South’ partnerships can truly occur when researchers are operating in a context of structural inequalities. Critiques have been made of the neo-colonialist nature of research relationships between high- and low-income countries where the research agenda is dominated by high-income country (HIC) researchers and agencies, funding goes towards primarily international salaries (rather than salaries of local researchers), and dissemination is oriented towards international journals and conferences rather than local knowledge translation (Boshoff, 2009; Costello & Zumla, 2000; Trostle, 1992). Others have articulated a set of funding, organisational and paradigmatic constraints on research partnerships with potential negative consequences at the international, institutional and individual levels (Vasquez, Hirsch, Giang, & Parker, 2013). Such criticisms have prompted a wave of efforts to devise more equitable partnership models where the research agenda, from development to dissemination, is equally shared among all the parties concerned (Boutilier, Daibes, & Di Ruggiero, 2011; CCGHR, 2009; Costello & Zumla, 2000). Costello and Zumla (2000, p. 829) propose a model that includes shared decision making, national ownership (where research programmes are owned and managed by nationals, and with foreigner inputs simply in

an advisory or technical capacity), early planning for the translation of research into policy and practice, and development of local research capacity (Costello & Zumla, 2000). Zarowsky (2011) argues that collaborative approaches to global health partnerships require (re)negotiation of all aspects of the partnership, from objectives to governance, as well as sensitivity to and respect for multiple and often diverging agendas and constraints of various stakeholders. Vasquez et al. (2013) propose a detailed set of responses to challenges at the individual, institutional and global levels. These responses include flexibility and adaptation, long-term vision, development of research infrastructure, revision of international funding agencies' policies with regard to health research capacity initiatives, and a legislative framework to better support research (Vasquez et al., 2013).

Canadian Coalition for Global Health Research Summer Institutes

Similar to many organisations today, the Canadian Coalition for Global Health Research (CCGHR) promotes the building of equitable partnerships as a means of furthering global health equity (CCGHR, 2010). CCGHR is a not-for-profit organisation whose goal is to promote better and more equitable health worldwide through changes in the way scientific knowledge is produced and used to reduce health disparities. In 2004, the CCGHR sought to respond to expressed needs among new Canadian and LMIC researchers for training in strengthening partnerships, translating research into action, and developing global health research competencies (Cole et al., 2011). CCGHR developed the Summer Institute – an intensive, short course intended to complement more formal health research training. Such programs are often part of strategic training initiatives in health research in Canada (see <http://www.cihr-irsc.gc.ca> for more). CCGHR organised seven Summer Institutes from 2004 to 2010 with a wide range of Canadian and international sponsoring organisations, in a variety of countries (see Table 1). They were conducted in three languages: English, French and Spanish, depending on the location of the institute. A key objective of the Summer Institutes was to strengthen participants' understandings of how global forces impact the health of citizens in Canada and LMICs, and to bolster knowledge-to-action though later Institutes focused on additional themes.

The Summer Institutes aimed to train 'new' global health researchers – which the CCGHR defined as researchers who have been involved in global health research for five years or less – in advocacy, leadership, building partnerships and knowledge translation competencies. Summer Institutes were structured into phases as set out in Table 2. Each Summer Institute ran for 5–10 days in length and the curriculum included structured didactic sessions, workshops with great interactivity, unstructured time for group discussions, protected time to work with a research partner, mentor, and other colleagues, site visits, and networking opportunities through social activities.

To strengthen partnerships between young researchers, a particular feature of the Summer Institutes was the call for applications by research 'dyads', each composed of one 'new' global health researcher from Canada and one from an LMIC, working on a joint health project. Research dyad members applied to the Summer Institute together, with a proposed joint research project in global health and knowledge-to-action plan, highlighting the experience of each participant and expected outcomes of their collaboration. Being part of a mixed Canadian-LMIC dyad associated with a specific research project or program was a key eligibility requirement to participate.

The organising committees for annual Summer Institutes consisted of several CCGHR staff and volunteer members of the organisation who were global health researchers themselves, and assumed the role of co-directors of that particular Institute year. Each year,

Table 1. Selected participant research projects by Summer Institute (SI) year, partner, theme and location.

Year (Summer Institute #)	Sponsor and location	Summer Institute Theme	Research projects of evaluation participants	Countries represented
2004 (1)	Dalhousie University, Nova Scotia, Canada	Knowledge to action	<ul style="list-style-type: none"> ● Child health education ● Women's participation in domestic violence health policy ● Challenges translating research results to key stakeholders in Canada, Cuba and internationally ● Access to health services for the homeless ● Translating HIV/AIDS research into community interventions ● Chronic obstructive pulmonary disease (COPD) and asthma management 	Bangladesh, Bolivia, Burkina Faso, Canada, China, Cuba, Malawi, Mali, Uganda, Thailand
2005 (2)	Ifakara Health Research and Development Centre, Ifakara, Tanzania	Knowledge to action	<ul style="list-style-type: none"> ● Highly Active Antiretroviral Therapy (HAART) program intervention Uganda ● Scale-up of the Sprinkles Intervention in Ghana ● Nurses' Role in HIV Policy Development in Africa and Asia ● SIDA3 ● Pedestrian injury and pediatric injury study ● Possibility of translational studies at a satellite Canadian HIV Trials Network in Kampala ● Development of a joint research programme between CIET Africa and CIET Canada ● Comparing The Health and Development of Immigrant Children and Those Who Stay At Home: Ethiopian Children In Toronto and In Addis Ababa ● Trachoma and environmental and behavioural interventions ● The Development of Adolescent Alcohol Abuse Early Interventions for Zambia Youth 	Benin, Canada, Ethiopia, Ghana, South Africa, Tanzania, Zambia, Uganda

Table 1 (Continued)

Year (Summer Institute #)	Sponsor and location	Summer Institute Theme	Research projects of evaluation participants	Countries represented
2006 (3)	Instituto Nacional de Salud Pública, Cuernavaca, Mexico	Knowledge to action	<ul style="list-style-type: none"> ● Peer Education Intervention to Promote Health Among Youth in Rural Mongolia ● Bolivian Community Health Project ● Bwalo Youth Initiative ● Factors that Influence Socio-economic Gradients in Developmental Health in Selected Areas of Rural Punjab, India ● Evaluation Of Audio Assisted Confidential – Voting Interview for Estimating High Risk Sexual Behavior in Men ● Nicaraguan-Canadian Consortium: Research Program Cotonou Adolescent Sexual Health Survey ● Mental Health of Ugandan Youth who have been Orphaned by HIV AIDS ● Palestinian Adolescents Coping with Trauma ● Healthy Aging in India 	Benin, Bolivia, India, Mongolia, Nicaragua, Uganda, Palestine, Zambia
2007 (4)	Centre for Development Studies, Trivandrum, Kerala, India	Knowledge to action	<ul style="list-style-type: none"> ● Strengthening Nurses' Capacity in HIV Policy Development in sub-Saharan Africa ● Reducing the burden of illness due to malaria ● Mercury in rural Ecuadorean and Peruvian households ● The use of artistic workshops as a healing strategy for survivors of psychosocial trauma ● The role of the Malaysian pharmacy profession in smoking cessation in Malaysia 	Chile, Democratic Republic of Congo, Ecuador, India, Kenya, Malaysia, Pakistan, Peru, South Africa, Uganda

Table 1 (Continued)

Year (Summer Institute #)	Sponsor and location	Summer Institute Theme	Research projects of evaluation participants	Countries represented
2008 (5)	Quw'utsun' Cultural and Conference Centre Cowichan Valley of Vancouver Island, British Columbia, Canada	Global indigenous health research	<ul style="list-style-type: none"> ● Mental Health and Poverty Project ● Outcomes of HAART among HIV/AIDS patients in Fort Portal, Uganda ● Political violence, natural disasters and mental health outcomes in Peru ● Improved diagnostic tests for tuberculosis ● Cultural continuity and addictive behaviour among urban Aboriginal Canadians ● Co-epidemiology and control of <i>Triatoma infestans</i> and Chagas disease transmission in the Gran Chaco region (Argentina, Bolivia, Paraguay) ● Evaluation and dissemination of the disease control priorities India ● An ecosystem approach to trachoma control with Masai in northern Tanzania ● Climate change and indigenous food security in the Yukon ● Access to health services in Alberta and Chile ● Reducing environmental and health effects of pesticides in Ecuador ● Mental health of war victims ● Maternal health among indigenous women in Guatemala ● A Caribbean-Canadian dialogue in eco-health 	Argentina, Canada, Chile, Dominica, Ecuador, Guatemala, India, Tanzania
2009 (6)	University of Ouagadougou, Institut supérieur des science de la population Burkina Faso	Maternal and child health or gender and health	<ul style="list-style-type: none"> ● Reducing maternal mortality in West Africa ● Child nutrition in Burkina Faso ● Access to maternal health services ● HIV/AIDS and reproductive health education 	Burkina Faso, Cameroon, Canada, Democratic Republic of Congo, Ivory Coast, Malaysia, Nigeria, Tanzania

Table 1 (Continued)

Year (Summer Institute #)	Sponsor and location	Summer Institute Theme	Research projects of evaluation participants	Countries represented
2010 (7)	Universidad Andina Simon Bolivar (UASB) Quito, Ecuador	Social determinants of health in Latin America	<ul style="list-style-type: none"> ● Pesticide-related health impacts in Ecuador's banana industry ● Reduction of small arm and light weapon violence in El Salvador ● Improving health status and safety of indigenous communities ● Capacity-building to prevent and control dengue ● Strengthening Nurses' Capacity in HIV Policy Development ● Malaria in Pregnancy ● Survival and resistance strategies to globalisation of women in prostitution ● Capacity-building needs for knowledge translation in Uganda 	Argentina, Canada, Ecuador, Jamaica, El Salvador, Mexico

Table 2. CCGHR Summer Institute phases and corresponding activities.

Phase	Duration	Activities
Recruitment	2 months	Organisers secure funding, invite applications from research partners (dyads), recruit facilitator/mentors and resource people, select participants
Preparation	2 months	Virtual exchanges among CCGHR Summer Institute organisers, facilitators (senior researchers) and participants through email and a web space for information sharing
Face-to-Face	5–10 days	Onsite training lasting approximately 5–10 days, with a mix of presentations by resource people, workshops with group work, mentored partner work, field trips and plenary presentations of participants' projects
Follow-up	Weeks to months	Continued contact among Summer Institute participants and facilitators through CCGHR communications/events and other activities

selection of the dyads was conducted through a peer review process involving representation from the different members of the organising committee and CCGHR members more broadly. Selection of these dyads was guided by the CCGHR's vision around partnerships having great potential to strengthen health systems, build capacity and promote health equity. According to the CCGHR, 'health research partnerships may have a number of benefits, including enhancement of the quality of research, exchange of knowledge between counterparts, and development of research capacity' (CCGHR, 2009, p. 4). Furthermore, the CCGHR maintains that 'health research partnerships have the potential to lead to successful collaborations and lasting relationships, and also to research that is translated into action to improve health equity' (CCGHR, 2009, p. 4).

The format of the Summer Institutes was based on the principle that one of the best ways to promote learning is to facilitate interconnections between people with diverse experiences and disciplinary backgrounds, and to provide opportunities for participants to spend time with their research partners to apply what they had learnt to their own research projects. In addition to training, past experience and future potential of the component individuals, dyads were selected based upon the nature of their project and its fit with the particular theme of the Institute that year, the potential for research-to-action (including involvement of knowledge users), and the duration and nature of their partnership.

Application to acceptance ratios varied from 2:1 in initial years when many participants applied, through to approximately 1.3:1 in latter Institutes. Once recruited, the dyad refined a collaborative research and knowledge-to-action plan with the mentorship of an on-site mentor ('facilitator') during the face-to-face session. The participating dyads ($n = 71$ across all years) were 'new' global health researchers, while the facilitators/mentors were more senior researchers (Canada $n = 39$; LMIC $n = 22$ across all years) who were available on site and virtually after the Summer Institute for mentorship. Dyad participants varied from 12 to 24 individuals and facilitator-mentors from 6 to 9 individuals in any single year. The pairing of Canadian-LMIC researchers in partnership was meant to foster knowledge exchange among participants, as well as promote sustainable collaborations among researchers situated in different countries and sometimes different continents. Given the range of qualifications (one-third of the participants were Masters or professional-level individuals, one-half were doctorate-level

individuals, and the remainder post-doctoral candidates and early professors), dyads often involved partners at different stages of their careers.

At the time of their application for the Summer Institute, some research partners had previously collaborated with each other through being a part of an existing institutional collaboration. Others were part of larger institutional partnerships but met in person for the first time at the face-to-face session. Some partners had professional training in the same academic field, while the majority brought different disciplinary backgrounds. As part of a growing recognition of the politicised environments in which researchers work, and as work directly with policymakers in the generation and use of research gained prominence, in Summer Institute #7, the CCGHR introduced 'triads' to the Summer Institutes. Triads involve the addition of a third member, a policymaker, to the partnership.

Case study framing and questions

While organisational and institutional partnerships have received much attention (Horton et al., 2009; Oni et al., 2011; Smith et al., 2009), there is less research on the interpersonal dynamics involved in individual researcher-to-researcher partnerships. Ethnographically grounded analyses of global health research draw attention to the complex interactions of formal ethical and procedural protocols and everyday life of research, where individual- and community-level relationships are central and always being negotiated (Geissler, Kelly, Imoukhuede, & Pool, 2008; Kelly & Geissler, 2011). The individual-researcher(s) level at which many research capacity-building partnerships function may play a critical role in the success of larger collaborations (Lansang & Dennis, 2004; Mayhew, Doherty, & Pitayarangsarit, 2008).

In their analysis of a partnership developed between the Health Economics and Financing Programme of the London School of Hygiene and Tropical Medicine and three southern partners in South Africa and Thailand, Mayhew et al. (2008) found that five years of institutional partnerships resulted in enhanced individual and institutional research capacity, which 'could not have been achieved without good personal relationships between members of the partner institutions, built on trust developed over 20 years' (Mayhew et al., 2008, p. 1). Not only did the partnership between South Africa and Thailand emerge through individuals who undertook post-graduate work together in London, but these two researchers also went on to play leading roles in their institutions, an individual relationship that served as the basis of a strong institutional partnership. Thai staff in Mayhew and colleague's study regarded the partnership as a link between the directors of the partner organisations. Mayhew et al. (2008) draw our attention to the role played by personal relationships and one-on-one interactions in global health research capacity initiatives. Lansang and Dennis (2004) point out how many collaborative capacity-building programs in health research take the form of training of individuals in different aspects of research whose outputs are greater than the sum of isolated parts. Others draw our attention to the central role of factors such as language and communication (Akkerman, Admiraal, Simons, & Niessen, 2006; Marshall-Lucette, Corbett, Lartey, Opio, & Bikaitwoha, 2007; Reddy, Taylor, & Sifunda, 2002; Stillman, Yang, Figueiredo, Hernandez-Avila, & Samet, 2006), trust (Brown & Gaventa, 2009) and cross-cultural sensitivity (Akkerman et al., 2006; Barrett et al., 2011; Reddy et al., 2002) in the success of partnerships.

How partnerships are formed and *how they work* merit increased scholarly attention, not merely the measurable outcomes of partnership initiatives. Enhanced attention is also needed to qualitatively examine the perspectives of individuals who form part of larger institutional or organisational partnerships. As such, this article contributes to the partnership literature by examining the formation of one-on-one research partnerships from the perspective of both Canadian and LMIC young global health researchers. Understanding the process by which individual researchers form and sustain partnerships necessitated interviews that would elicit participants' reflections. Our aim was to synthesise these experiences to inform the design and organisation of future intensive training programs in global health research, and in training for building partnerships.

Drawing on qualitative interviews conducted in 2011 as part of a larger evaluation of the CCGHR Summer Institute program (Godoy-Paiz et al., 2011), this paper explores alumni perspectives of the Summer Institute experience. In particular, we focus on alumni perspectives on the pairings of Canadian and LMIC researchers working on collaborative projects.

Our research questions included the following: from the perspective of the alumni, how did the partnership requirement of the Summer Institutes unfold during and following the Summer Institute? Did the requirement to work collaboratively spark or strengthen partnerships in their view? What were facilitating factors and barriers to the partnerships? And, how have these partnerships been sustained (or not) since the alumni participated in the Summer Institute? Finally, what might the experiences of the CCGHR Summer Institute alumni reveal about training the next generation of global health researchers in working collaboratively?

Methods

A mixed-methods study that included a short online survey and in-depth interview was conducted. All former Summer Institute participants, facilitators and organisers ($n = 190$) from the seven Institutes held between 2004 and 2011 were invited by email to participate in a 10-minute online survey using SurveyMonkey® (Phase I). The invitation email included the study description, consent forms for the online survey (Phase I) and in-depth interview (Phase II). Of the participants who completed Phase I (33%, $n = 62$), 82% ($n = 51$) consented to participate in Phase II of the study. Of the 51 respondents who consented, 39 participated in Phase II, the qualitative interviews (see Table 3 for the distribution of interview participants across the Summer Institute years). Due to scheduling conflicts or lack of response to requests to schedule an interview, not all who consented to the interview participated.

The survey (Phase I) asked about the Summer Institute in which alumni participated, whether they had implemented projects from the Summer Institute, their confidence in global health competencies, involvement in global health activities, and whether they maintained contact and collaborated with other participants and their dyad partners from the Summer Institute. For Phase II, the qualitative interview protocol was designed to gather more in-depth information and alumni perspectives on the Summer Institute experience, the effect of face-to-face to work on a collaborative project with a colleague from another part of the world, and perceived impact of the training program on work (clinical, community and research) in global health and career trajectory. Both the survey and interview were made available in English, French and Spanish. This paper focuses on the results of the qualitative interviews (Phase II), particularly as it relates to working

Table 3. Phase II interview participants by Summer Institute year.

Summer Institute (SI) year	Study participant key	Summer Institute role	Gender	Geographical location
SI 1	#5	Participant	Male	Canada
SI 1	#15	Participant	Female	Canada
SI 1	#16	Participant	Male	Canada
SI 2	#18	Facilitator	Female	Canada
SI 2	#13	Participant	Male	LMIC
SI 2	#24	Participant	Male	Canada
SI 2	#31	Participant	Female	Canada
SI 2	#37	Participant	Male	LMIC
SI 3	#55	Participant	Female	LMIC
SI 3	#59	Participant	Female	Canada
SI 3	#64	Participant	Female	Canada
SI 3	#238	Facilitator	Male	LMIC
SI 4	#68	Participant	Female	Canada
SI 4	#71	Participant	Male	Canada
SI 4	#73	Participant	Female	Canada
SI 4	#82	Participant	Female	Canada
SI 4	#83	Participant	Female	Canada
SI 5	#91	Participant	Female	Canada
SI 5	#94	Participant	Male	LMIC
SI 5	#102	Participant	Female	Canada
SI 5	#103	Participant	Female	Canada
SI 5	#251	Facilitator	Male	LMIC
SI 6	#105	Participant	Female	LMIC
SI 6	#106	Participant	Female	LMIC
SI 6	#109	Participant	Female	Canada
SI 6	#112	Participant	Female	LMIC
SI 6	#113	Participant	Male	Canada
SI 6	#121	Participant	Female	Canada
SI 7	#126	Participant	Male	Canada
SI 7	#127	Participant	Male	LMIC
SI 7	#129	Participant	Female	Canada
SI 7	#132	Participant	Female	Canada
SI 7	#136	Participant	Male	Canada
SI 7	#137	Participant	Female	LMIC
Multiple SIs	#206	Facilitator	Male	Canada
Multiple SIs	#201	Facilitator	Female	Canada
Multiple SIs	#203	Facilitator	Female	Canada
Multiple SIs	#205	Facilitator	Female	Canada
Multiple SIs	#249	Facilitator	Male	Canada

collaboratively among individual researchers. This study was approved the University of Toronto Research Ethics Board, and informed consent was provided by all participants.

Given the heterogeneity of Summer Institute participants, we wanted to capture the perspectives of participants from the different program years, regions of the world, career level, different disciplines and gender. Interviews were conducted utilising an interview guide developed by the research team and translated to French and Spanish to accommodate the preferred language of the respondents. The guide was designed as a

flexible, open-ended tool to help organise the interviews. While certain categories in the guide were predetermined – for example, respondent background, the Summer Institute participation experience, relationships with research partner, and post-Summer Institute career trajectory – the semi-structured nature of the interviews meant that respondents could draw on and expand upon their own personal experiences with the Summer Institute.

Of the 39 interviewed, 8 were involved in a Summer Institute as facilitators and 31 were trainees. In the majority of cases, only one member of the dyad participated in the qualitative interview. Interviews lasted approximately 35–50 minutes in length, were conducted over Skype®, and were recorded with the permission of the participants. Five interviews were conducted in French, 4 in Spanish and 30 in English, although language did not correspond to participants' geographical location.

The research team actively sought to include an equal number of interviews among both LMIC and Canadian participants through targeted efforts to reach LMIC participants, including multiple invitations to participate in the study and engaging former mentors to assist in recruiting their past mentees. These efforts enabled the research team to recruit the included LMIC participants, who provide an important perspective on research collaborations in global health research. However, as we discuss in our limitations section, although we were successful in obtaining LMIC participation, a number of factors prevented a fully balanced sample size across Canadian and LMIC researchers. Twenty-eight respondents were Canadian-based researchers and 11 were from LMICs (4 from Latin America, 6 Africa, and 1 from Asia and Oceania).

The final sample size for the interviews ($n = 39$) was reached when the research team had interviewed participants from the different Summer Institute years, when we had interviewed as many participants as consented, and when further interviews with LMICs researchers were not possible. Interviews were transcribed (translated into English if conducted in French or Spanish) and coded using Nvivo9® qualitative data analysis software. A preliminary coding framework was developed around the questions early on and modified using interviewer observations of dominant themes emerging in the interviews. The coding framework was tested on five interview transcripts and refined as the coding was performed. At least two researchers coded each interview, with coding disagreements resolved in team meetings via consensus. Using Nvivo9®, the research team conducted thematic content analysis (Green & Thorogood, 2009).

Thematic content analysis involved the systematic examination of themes emerging from the interviews, developing categories (codes) and grouping and classifying the categories (see Table 4 for a summary of the thematic analysis). For this article, interview transcripts were reanalysed with a focus on partnerships in global health research. We ran additional queries in Nvivo9® to ensure a rigorous analysis. In addition for triangulation of data, materials from the CCGHR (including summary reports of the different Summer Institutes, the organisation's Strategic Plan 2010–2014 and Partnership Assessment Tool (CCGHR, 2009)) and website material were used as secondary sources to provide further context for our analysis.

Findings

Alumni experiences of the Summer Institutes were wide-ranging. While there was a rich diversity of experiences among research participants, several themes cross-cut their experiences, including gaining new skills and knowledge at the Summer Institute and building connections and relationships to other researchers. Participants perceived a

Table 4. Summary of thematic analysis: key themes and sub-themes from interviews.

Theme	Subtheme
Gaining new knowledge	<ul style="list-style-type: none"> ● Different perspectives in Global Health ● Learn about health projects and collaborations around the world
Bringing researchers together	<ul style="list-style-type: none"> ● Working on joint project with dyad partner ● <i>Face-to-face interaction</i> ● <i>Time to work collaboratively</i> ● <i>Space for reflection and discussion</i>
Ongoing collaboration	<ul style="list-style-type: none"> ● Importance of mentor ● Continued contact and projects ● Outputs ● <i>Academic publications</i> ● <i>Policy reports</i> ● <i>Community-based projects</i> ● <i>Conferences and presentations</i> ● <i>Grant proposals</i> ● <i>Knowledge to action work</i>
Challenges to partnerships	<ul style="list-style-type: none"> ● Interpersonal differences ● <i>Lack of similar priorities</i> ● <i>Different levels of training</i> ● Lack of funding ● Unsupportive employer ● Political climate

connection between the space to work jointly at the Summer Institute, and strengthened partnerships and their ongoing collaborations. However, their experiences also speak to the numerous challenges encountered by researchers in attempting to forge collaborative pathways to global health research, including interpersonal differences, funding challenges and unsupportive and/or unstable work and political contexts.

Knowledge gain as a perceived outcome of the Summer Institute

Overwhelmingly, former Summer Institute participants described their experience in positive terms as enriching their learning of the field of global health. Both Canadian and LMIC Summer Institute participants described learning from collaborative research projects between Canada and other countries as a factor that motivated them to apply to the program. For example, one participant indicated that she wanted to ‘meet people and learn about what is going on in terms of other projects happening especially between Canada and other countries’ (Canadian Respondent #129). Another stated ‘I wanted to inform myself about the field of global health because you hear a lot about global health, but often its meaning is not elaborated’ (LMIC Respondent #137). Gaining new knowledge was among the most frequently cited outcome of the Summer Institute for the alumni interviewed (cited 15 times). Being exposed to a broad scope of global health

research projects, particularly within an LMIC and developing country context, was cited by Canadian and LMIC Summer Institute participants as contributing to their learning. One alumnus, who participated in the Institute #4 held in Kerala, India, expressed:

I just got a better sense of where things fit in terms of global health and what the issues were. The whole notion of the equity-based approach to research was new to me at the time. It was good to get that perspective. The public health side, I had a relatively good understanding from before, but it was good to be in a developing country context. Some of the interaction with others – I got a good sense of how things fit in different conditions [...] mental health [and] other areas such as HIV and other infectious diseases and non-communicable diseases. (Canadian Respondent #73)

Respondent #137, a researcher from Latin America who participated in Institute #7 held in Quito, Ecuador, stated that for her:

It was nice to meet guests from Latin America and hear their presentations because there is a production of knowledge in Latin America, but as you know, usually the production of scientific research always comes from the North, and makes invisible the contributions from Latin America or from Africa. So for me it was very rewarding to meet colleagues from Chile, Guatemala, presenting on themes, also linked to my work.

Thus, as respondents #73 and 137 articulate, learning about different health issues across various geographical, political and social settings was perceived by alumni as an important outcome of their Summer Institute participation.

Working collaboratively on a project as an expectation and outcome

The opportunity to network was frequently highlighted by Summer Institute alumni as both a motivating factor for participating and key outcome of the program, particularly given the fact that as ‘new’ researchers, meeting ‘important players’ in global health was essential (Lenters, Cole, & Godoy-Ruiz, 2014). Both making new connections and strengthening existing working relationships with their Summer Institute partner were perceived as important by alumni for breaking the isolation they experienced as global health researchers, and for creating a context of support. One interviewee indicated that ‘the aspect of the Summer Institute that stands out was the opportunity to work in pairs to develop a collaborative approach to international research’ (Canadian Respondent #16). Participants also articulated a sense of enthusiasm for having face-to-face time with their partner to work on their joint project. ‘I expected that I would get to know my dyad partner better, which would further our project’, one alumnus indicated (Canadian Respondent #68). Another alumni interviewed shared the following reflection:

I was just starting out in my career in global health at that time and I had just started on a research collaboration in Uganda. So this was an opportunity for me to explore more topics in the field of global health. The Summer Institute was also promoted as an opportunity to strengthen links with a dyad partner in a developing world context. So I was able to invite one of my colleagues from Uganda to participate with me. I saw that as an opportunity to strengthen the partnership through mutual learning. Those two main things attracted me to the Summer Institute (Canadian Respondent #24).

Collaborations in global health research are strained by distance, communication barriers and a lack of funding, among other obstacles. Therefore, Summer Institute participants

particularly valued the face-to-face time with their research partners as an opportunity to develop their project. One participant stated ‘for me the Summer Institute was a good opportunity to have time to discuss the same research problem with other researchers and specifically to devote time to the research project with my dyad’ (LMIC Respondent #105). As articulated by another participant, alumni viewed the Summer Institute as facilitating ‘the face-to-face interaction that is crucial for working together effectively in a team. Which is important when people are separated by a hemisphere and trying to collaborate’ (Canadian Respondent #126).

Research participants articulated that working with a partner from a different part of the world in the presence of supportive colleagues and mentors was a valuable experience. Each research team had an assigned mentor with content expertise on their research topic. Mentors engaged in a variety of activities deemed relevant to learner development (Plamondon & CCGHR Capacity Building Task Group, 2007) including active listening, guided questioning, sharing experiences when asked, providing feedback, and confidence building. The intensive, iterative nature of the interactions over the 5–10 days of the Summer Institute provided key inputs to the dyad. As one Summer Institute alumnus stated, ‘What I found really beneficial and efficient was the presence of the dyads and the connection with the mentor. The dyads alone without mentor would not have the same effects’ (LMIC Respondent #106).

Finding collaborative pathways during and following the Summer Institute

A key objective of the dyad partnerships model of the Summer Institute was to strengthen ongoing collaborations between Canadian and LMIC researchers. With regard to ongoing contact and collaboration between Summer Institute participants, Phase I data revealed that the majority of alumni kept in contact with their dyad partner and many research collaborations were still active in the post-Summer Institute phase (see [Table 5](#)). Participant statements with regard to ongoing contact with their dyad included the following: ‘I would say we are in constant contact and getting feedback from one another. [...] Each of us tells the other, “look I have something on this topic”, and we discuss, and we have talked on Skype, we send each other emails, he sends me his proposal, I send him mine’ (LMIC Respondent #137). Another respondent indicated that the Institute ‘laid the foundation for me to sit down and work with this particular person and work on this particular piece of our work. And I think it’s moving forward I’m continuing to collaborate with this person, my dyad’ (Canadian Respondent #129). Alumni commonly mentioned further development and implementation of their Summer Institute project as important outcomes of their participation in the program. One alumnus stated, ‘my dyad and I are still very engaged, since then we’ve done an international presentation [...] and we are working on, close to the last draft of a manuscript based on our project. So we are working together’ (Canadian Respondent #129). Similarly, respondent #105 stated, ‘we published two articles, including one in a scientific journal [...] and a third one is under preparation’ (LMIC Respondent). As displayed in [Table 5](#), Summer Institute alumni reported being engaged in a wide range of research-to-action projects, many of which are in collaboration including capacity building at the local level with training of undergraduate and graduate students (Canadian Respondents # 5, 71, 126; LMIC Respondent # 94); research and academic publications (Canadian Respondents #16, 71, 73, 91, 102; LMIC Respondents #13, 127, 137); newsletters and policy-related reports (Canadian Respondents #68, 91, 102); conferences and presentations at public forums (Canadian Respondents # 16, 71, 102, 113; LMIC Respondent # 127); grant proposals

Table 5. Contact and collaboration among SI participants (number [%]), phase I data.

The respondent in contact/collaboration with	Nature of contact/collaboration	Respondent (by role in SI)	
		Alumni (<i>n</i> = 36)	Facilitators in training, facilitators & -organisers (<i>n</i> = 25)
Dyad-triad partner	In contact	27 (75%)	6 (24%)
	Currently collaborating	16 (44%)	5 (2%)
Other participants in same summer institute year	In contact	16 (44%)	10 (40%)
	Currently collaborating	6 (17%)	6 (24%)
Facilitators in same summer institute year	In contact	16 (44%)	18 (72%)
	Currently collaborating	14 (39%)	13 (52%)
Other summer institute alumni	In contact	9 (25%)	10 (40%)
	Currently collaborating	8 (22%)	3 (12%)
Other CCGHR members	In contact	21 (58%)	20 (80%)
	Currently collaborating	12 (33%)	6 (24%)
None of the above	In contact	1 (3%)	1 (4%)
	Currently collaborating	8 (22%)	11 (44%)

(LMIC Respondents # 251, #37); and radio interviews (Canadian Respondent #102). Moreover, participants described community-based health projects they were leading (Canadian Respondents #5, 24), advocacy work (Canadian Respondent #136), founding of health NGOs (LMIC Respondent #37; Canadian Respondent #91) and arts-based outputs (Canadian Respondent #83).

In addition to giving specific examples of collaboration beyond the face-to-face session, alumni spoke about the general contribution of their Summer Institute partnerships on their current global health research, and sometimes in unexpected ways. For example, one respondent indicated that while the initial project she and her dyad partner had proposed did not unfold, the Summer Institute experience allowed them to collaborate around a new project. She expressed:

We did not work together on the initial project we developed together because we had different points of view, but we maintained the partnership around a new project. [...] The Summer Institute participation allowed the initiation of another project for which we will develop and implement a research to action plan and a knowledge translation strategy (LMIC Respondent #112).

The respondent explained that she, a university professor with pressures to publish, and her dyad partner, who was a graduate student, had different levels of skills and priorities. Her dyad partner had just received her supervisory committee's feedback and was concerned with incorporating a particular theoretical framework into her work. These differences in priorities and levels of training became evident during the face-to-face meeting; however, the intentional inclusion of structured and unstructured time during the Summer Institute to exchange ideas, seek advice from their mentor, and co-present ideas to colleagues enabled them to re-negotiate the parameters of their collaborative project.

Aware of their differences, the dyad re-grouped around common interests. The partners shared solid field experience in the same country and shifted the focus of their project, which took on a new knowledge translation and mobilisation focus. They were able to work through the difficulties of their projects as well as tensions and disagreements among the partners. The design of the Summer Institute learning environment specifically included social space for re-negotiation of all aspects of the partnership, and a sensitivity to divergent agendas that is highlighted in the literature as crucial to partnership development (Zarowsky, 2011).

Challenges to partnerships

While the interviewees spoke to various instances of ongoing collaboration beyond the face-to-face session, they also spoke of a considerable set of limiting circumstances to such partnerships. The first set of circumstances described by participants was related to interpersonal differences, such as perceived different levels of competence and preparation. One participant indicated:

I noticed that for some, the Summer Institute project was not a priority in their life plan. So it is necessary to create a context within which the dyads can work on long term goals [...]. The obstacles are that possible for many people the Summer Institute is disconnected from the everyday life of the participants. For many, there was no long-term objective (LMIC Respondent #238).

A salient theme in the interviews was the sense that in the post-Summer Institute phase, it was often challenging to keep the long-term momentum of the research partnership.

Interview participants voiced a desire for structured continual support from the CCGHR that might include the use of virtual platforms and social media. Ongoing support would allow the relationships built and solidified during the Institute to be nurtured following the face-to-face learning experience.

In 10 interviews, alumni reported that they were no longer in contact with their partner. Three participants explained that the dissolving of a research relationship occurred due to interpersonal differences and differences in points of view (Canadian Respondent #59; LMIC Respondents #238, 55). However, in the majority of cases, there were one or more external factors that resulted in the loss of contact. One or more members changing positions or work responsibilities was often a factor. Commonly, members lost contact when their Summer Institute project could not be developed further, for reasons such as lack of funding, unsupportive employers or political instability.

Lack of funding (Canadian Respondent #71; LMIC Respondents #106, #127) and a challenging political climate (Canadian Respondents #109, 71, 15, 5, 59, 18; LMIC Respondents #112, 127) were mentioned as factors inhibiting their research, ongoing collaborations and knowledge translation efforts. Speaking to a lack of funding for sustaining collaborative research projects, an interviewee indicated, 'Our Summer Institute project was a community-based project for malaria prevention, and because of funding limitations it never really got off the ground on a large scale' (Canadian Respondent #71). While concerns from both Canadian and LMIC researchers regarding funding and its implications for sustained partnerships were raised, researchers from LMICs expressed such concerns more forcefully. An LMIC-based researcher reflected on his Institute experience and post-Summer Institute research collaborations:

I think it's necessary to understand the differences that exist in the circumstances of the researchers in our own countries and in other countries. I think sometimes there is a lack of understanding or empathy for the circumstances under which researchers from Southern countries have to work compared to countries in the North. This means that the Summer Institutes or programs like it will continue to operate with schemas from the North (LMIC Respondent #94).

When referring to a challenging political context for carrying out research and knowledge translation work, a participant explained that in her country of work, '[t]he mentality is eminence-based: one person decides what he wants to do according to the political agenda and that's it. So it's an enormous work to convince decision-makers to initiate discussion, to report the problems' (LMIC Respondent #112). Furthermore, another participant indicated, 'We faced some political challenges, politicians have certain interests which differ from us as researchers' (LMIC Respondent #13).

Discussion

The purpose of this study was to explore, from the perspective of alumni of the CCGHR's Summer Institutes, the training, learning and collaboration experiences of new global health researchers. The findings from this case study demonstrate how intensive short-courses, or workshops, can provide a basis for shaping new global health researchers and work to foster meaningful research collaborations. Given the varying circumstances of Summer Institute participants, there was no single post-face-to-face session trajectory for these partnerships. As Daulaire (2008) highlights, by their very nature, partnerships tend to be unique, both in terms of the individuals who make them up and the organisations they are part of. Partnerships among the Summer Institute researchers were highly

diverse. Many partnerships continued and participants revealed the joint delivery of a range of outputs – including conference presentations, publications and community-based projects.

Emerging as a powerful theme from the interviews was the fact that alumni perceived the Summer Institute participation, in particular the innovative format of requiring all participants to work in LMIC and Canadian research teams, as an enriching learning opportunity. The face-to-face component was raised as extremely valuable to the experience of fostering collaborations given the distance and communication challenges implicit in global collaborative research efforts (Barrett et al., 2011). However, it was the combination of the in-person training, structured and unstructured learning time, observing the North–South collaborations of their colleagues, working in cross-cultural research dyads, and interaction with colleagues and mentors from around the world and from different academic disciplines that enhanced participants' individual experience and their work in a dyad. Along with partnership-building skills, learning in cross-cultural settings and mentorship are increasingly highlighted as key competencies for global health research (Cole et al., 2011; see also <http://www.cghr.ca/working-groups/mentorship-working-group/stories-of-mentorship/>). Research training in one-on-one LMIC/HIC partnerships coupled with mentorship, such as that offered by CCGHR Summer Institutes, may be an exciting option for concretising global partnerships to promote health research capacity building. As such, our case study can inform the design of similar short courses, or intensive training programs in global health research. They could preserve the face-to-face component with mentorship but nest it within a longer process of virtual interaction, perhaps using the web-based platforms that are increasingly used in online and distance education programs to facilitate partner interaction.

This study extends the partnership literature by offering insight into perspectives of Summer Institute alumni attempting to forge and sustain one-on-one global health collaborations. While there is a wealth of literature on institutional partnerships in global health research (Smith et al., 2009), less attention has been given to one-on-one individual research partnerships and their role in larger institutional collaborations in which they are embedded (Mayhew et al., 2008). The perspectives of the Summer Institute alumni suggest that we should also examine the interplay between individual and institutional-level collaborations and broader social factors, such as political agendas, and how the latter influence or shape the research partnership (see Vasquez et al., 2013).

This study sheds light on a few of the individual, institutional and broader social conditions that worked to enhance, or challenge, the work of individual research partnerships of Summer Institute alumni. In our research, positive interpersonal relationships among researchers, based on sharing similar goals, perspectives and a sense of commitment to the collaborative project, was perceived as crucial to a successful partnership. Conversely, perceived differences in priorities among the partners were seen as detrimental, in keeping with the Vasquez et al. (2013) experience. Alumni experiences reveal that the aforementioned factors are not always 'naturally' occurring, but can be worked out and negotiated. Collaborative learning spaces such as the CCGHR Summer Institutes can play a significant role in nurturing such partnership-building skills in their learners. The dyad method used in the Institutes enabled learners to begin practicing collaboration competencies required for global health capacity building. Partners could work through issues of trust, commitment and divergent perspectives. Furthermore, as we report in a parallel article (Lenters et al., 2014), built-in opportunities for individual networking, meeting new people, and making new contacts and relationships may also work to strengthen research capacity globally.

Having left the Summer Institute face-to-face session, the existence of institutional collaborations, employer engagement, funding support, and constructive agendas of local and national politicians were factors that facilitated interaction for the ongoing collaboration of the individual dyad partners. The interviews with Summer Institute alumni confirm the findings of other research that building effective partnerships is ‘time-consuming, resource intensive, and very difficult’ (Weiss et al., 2002). Having research projects funded, research work remunerated (a concern for many LMIC researchers), a supportive employer, and a favourable political climate all greatly facilitated the ongoing collaboration of Summer Institute alumni.

It is worth noting that the challenges to partnerships were highlighted more frequently by LMIC participants. As articulated by respondent #94, unequal structures of power underpin the context in which research collaborations take place. Therefore, training programs in global health research need to work diligently to nurture understanding in all for the circumstances of LMIC researchers and design new models or schemas to promote equity among researchers. Furthermore, policy reforms that support the development of research infrastructure may be among the changes required within institutional and national settings around the globe for enhancing sustainable health research (Nchinda, 2002; Vasquez et al., 2013).

Limitations

Despite extensive efforts to include a higher number of interviews among LMIC participants, this was not possible for various reasons. Challenges included the scheduling of interviews across time zones, busy schedules, non-response, and lack of current or alternate contact information of participants. We believe that the structural conditions signalled in the literature and raised by some of the participating LMIC researchers were likely at play, such as juggling multiple roles and jobs, lack of dedicated work time for participation in research, and changes in political climate and priorities that impact LMIC researchers’ career trajectories and roles. Future work should focus on the perspectives of LMIC researchers specifically, and address barriers and/or reluctance of LMIC researchers to participate.

Further to the discrepancy in LMIC and Canadian respondents, this study is somewhat limited in the richness of data on the dyad partnership because of the semi-structured nature of the interviews. Participants were not specifically probed on aspects of the dyad, rather, the importance of the dyad relationship emerged during the data analysis stage. A second round of interviews could have added an additional layer of richness; however, it was not feasible in this case.

Conclusion

The CCGHR Summer Institutes provided a context for participants from across the globe to strengthen competencies in global health research, and to forge and strengthen working relationships. The majority of collaborations continued years after the alumni participation in the training program, and joint outputs were reported. Participants perceived the Summer Institute as one factor among others that furthered their international collaborative research efforts. As revealed by the experiences of participants in this study, beyond positive individual working relationships and training opportunities, a context of support – including institutional, social and/or political support – is key to the sustained nature of the partnership; or conversely, to the partnerships’ unsustainability (Vasquez et al., 2013).

Further research that interrogates challenges at the individual, institutional and broader national and global levels for fostering meaningful research collaborations and contributing to health equity and health system strengthening is merited. While the institutional, national and global context of international health research works to constrain and shape collaborations, these collaborations could not be sustained without the contributions and relationships among the individuals who form them.

Acknowledgements

We would like to acknowledge participants in this study. We would also like to acknowledge Ritz Kakuma, Nolwenn Noisel and Nora Cole for contributions to this research. Vic Neufeld for mentorship; Roberta Hugh Lloyd, Jill Murphy and the CCGHR members for organisational and data support; and Karen Bramhill and Fabio Cabarcas for their project development and coordination stints.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The evaluation behind this article was partially supported by the Canadian Institutes of Health Research (CIHR)-Institute of Population and Public Health through the Institute's contribution to the CCGHR Summer Institute program. Support for this study was also received from the Social Aetiology of Mental Illness (SAMI-CIHR) Program at the Centre for Addiction & Mental Health/University of Toronto.

References

- Airhihenbuwa, C. O., Shisana, O., Zungu, N., BeLue, R., Makofani, D. M., Shefer, T., ... Simbayi, L. (2011). Research capacity building: A US-South African partnership. *Global Health Promotion, 18*(2), 27–35. doi:10.1177/1757975911404745
- Akkerman, S., Admiraal, W., Simons, R. J., & Niessen, T. (2006). Considering diversity: Multivoicedness in international academic collaboration. *Culture & Psychology, 12*, 461–485. doi:10.1177/1354067X06069947
- Barrett, A. M., Crossley, M., & Dachi, H. A. (2011). International collaboration and research capacity building: Learning from the EdQual experience. *Comparative Education, 47*(1), 25–43. doi:10.1080/03050068.2011.541674
- Bezanson, K. A., Narain, S., & Prante, G. (2004). *Independent evaluation of the partnership committees of the CGIAR*. Retrieved from: http://library.cgiar.org/bitstream/handle/10947/631/partnership_committee_review.pdf?sequence=1
- Boshoff, N. (2009). Neo-colonialism and research collaboration in Central Africa. *Scientometrics, 81*, 413–434. doi:10.1007/s11192-008-2211-8
- Boutilier, Z., Daibes, I., & Di Ruggiero, E. (2011). Global health research case studies: Lessons from partnerships addressing health inequities. *BMC International Health & Human Rights, 11*(Suppl. 2), S1. doi:10.1186/1472-698X-11-S2-S1
- Brown, L. D., & Gaventa, J. (2009). Constructing transnational action research networks: Reflections on the citizenship development research centre. *Action Research, 8*(1), 5–28. doi:10.1177/1476750309335205
- Canadian Coalition for Global Health Research (CCGHR). (2009). *Partnership assessment toolkit*. Retrieved from: <http://www.ccgrr.ca/resources/partnerships-and-networking/partnership-assessment-tool/>
- Canadian Coalition for Global Health Research (CCGHR). (2010). *Strategic plan 2010–2014*. Retrieved from: http://www.ccgrr.ca/Resources/Documents/CCGHR_StrategicPlan_2010-14_e.pdf
- Cole, D. C., Davison, C., Hanson, L., Jackson, S. F., Page, A., Lencuch, R., & Kakuma, R. (2011). Being global in public health practice and research: Complementary competencies are needed. *Canadian Journal of Public Health, 102*, 394–397.

- Costello, A., & Zumla, A. (2000). Moving to research partnerships in developing countries. *BMJ*, 321, 827–829. doi:10.1136/bmj.321.7264.827
- Crane, J. (2010). Unequal 'Partners': AIDS, academia, and the rise of global health. *Behemoth*, 3(3), 78–97. doi:10.1524/behe.2010.0021
- Daulaire, N. (2008). Foreword to special issue on partnerships. *Global Public Health*, 3(2), 113–114. doi:10.1080/17441690801950741
- Frenk, J., Chen, L., Bhutta, Z. A., Cohen, J., Crisp, N., Evans, T., ... Zurayk, H. (2010). Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. *Lancet*, 376, 1923–1958. doi:10.1016/S0140-6736(10)61854-5
- Fried, L. P., Piot, P., Frenk, J. J., Flahault, A., & Parker, R. (2012). Global public health leadership for the twenty-first century: Towards improved health of all populations. *Global Public Health*, 7(Suppl. 1), S5–S15. doi:10.1080/17441692.2012.702118
- Geissler, P. W., Kelly, A., Imoukhuede, B., & Pool, R. (2008). 'He is now like a brother, I can even give him some blood' – Relational ethics and material exchanges in a malaria vaccine 'trial community' in The Gambia. *Social Science & Medicine*, 67, 696–707. doi:10.1016/j.socscimed.2008.02.004
- Globalization Knowledge Network. (2007). Towards health-equitable globalization: Rights, regulation & redistribution. In *Final report to commission on social determinants of health*. Retrieved from: http://www.who.int/social_determinants/resources/gkn_final_report_042008.pdf
- Godoy-Paiz, P., Cole, D. C., Lenters, L., Kakuma, R., Cole, N., & Noisel, N. (2011). *Canadian Coalition for Global Health Research Summer Institute (2004–2010) participant follow-up study*. Toronto: CIHR-Institute for Population and Public Health.
- Green, J., & Thorogood, N. (2009). *Qualitative methods for health research* (2nd ed.). London: Sage.
- Hanney, S. R., & Gonzalez-Block, M. A. (2006). Building health research systems to achieve better health. *Health Research Policy and Systems*, 4(1), 10. doi:10.1186/1478-4505-4-10
- Hanney, S. R., Gonzalez-Block, M. A., Buxton, M. J., & Kogan, M. (2003). The utilisation of health research in policy-making: Concepts, examples and methods of assessment. *Health Research Policy and Systems*, 1(1), 2. doi:10.1186/1478-4505-1-2
- Horton, D., Prain, G., & Thiele, G. (2009). *Perspectives on partnership: A literature review*. Lima: International Potato Center (CIP).
- Jentsch, B., & Pilley, C. (2003). Research relationships between the South and the North: Cinderella and the ugly sisters? *Social Science & Medicine*, 57, 1957–1967. doi:10.1016/S0277-9536(03)00060-1
- Joss, N., & Keleher, H. (2011). Partnership tools for health promotion: Are they worth the effort? *Global Health Promotion*, 18(3), 8–14. doi:10.1177/1757975911412402
- Kelly, A. H., & Geissler, P. W. (2011). The value of transnational medical research. *Journal of Cultural Economy*, 4(1), 3–10. doi:10.1080/17530350.2011.535329
- Labonte, R., Mohindra, K., & Lencucha, R. (2011). Framing international trade and chronic disease. *Globalization and Health*, 7(21), 1–15. doi:10.1186/1744-8603-7-21
- Lansang, M. A., & Rodolfo, D. (2004). Capacity building in health research in the developing world. *Bulletin of the World Health Organization*, 82, 764–770.
- Lenters, L. M., Cole, D. C., & Godoy-Ruiz, P. (2014). Networking among young global health researchers through an intensive training approach: A mixed methods exploratory study. *Health Research Policy and Systems*, 12(1), 5. doi:10.1186/1478-4505-12-5
- Marshall-Lucette, S., Corbett, K., Lartey, N., Opio, D., & Bikaitwoha, M. E. (2007). Developing locally based research capacity in Uganda. *International Nursing Review*, 54, 227–233. doi:10.1111/j.1466-7657.2007.00565.x
- Mayhew, S. H., Doherty, J., & Pitayarangsarit, S. (2008). Developing health systems research capacities through north-south partnership: An evaluation of collaboration with South Africa and Thailand. *Health Research Policy and Systems*, 6(1), 8. doi:10.1186/1478-4505-6-8
- Maziak, W., Ward, K. D., Eissenberg, T., Klesges, R. C., & Keil, U. (2004). The Syrian center for tobacco studies: A model of international partnership for the creation of sustainable research capacity in developing countries. *Promotion & Education*, 11(2), 93–97.
- Nchinda, T. C. (2002). Research capacity strengthening in the South. *Social Science & Medicine*, 54, 1699–1711. doi:10.1016/S0277-9536(01)00338-0

- Nuyens, Y. (2005). No development without research: A challenge for research capacity strengthening. *Global Forum for Health Research*. Retrieved from: http://announcementsfiles.cohred.org/gfhr_pub/assoc/s14828e/s14828e.pdf
- Oni, G., Fatusi, A., Tsui, A., Enquesslassie, F., Ojengbede, O., Agbenyega, T., ... Quakyi, I. (2011). Strengthening public health education in population and reproductive health through an innovative academic partnership in Africa: The Gates partners experience. *Global Public Health*, 6, 193–209. doi:10.1080/17441692.2010.491485
- Plamondon, K., & CCGHR Capacity Building Task Group. (2007). *Mentorship modules*. Ottawa: CCGHR. Retrieved from: www.ccgpr.ca/resources/mentorship-and-leadership/mentorship-key-readings
- Reddy, P., Taylor, S. E., & Sifunda, S. (2002). Research capacity building and collaboration between South African and American partners: The adaptation of an intervention model for HIV/AIDS prevention in corrections research. *AIDS Education and Prevention*, 14(Suppl. 2), 92–102. doi:10.1521/aeap.14.7.92.23860
- Schiavon, R., & Westley, E. (2008). From pilot to mainstream: A decade of working in partnerships to expand access to emergency contraception in Mexico. *Global Public Health*, 3, 149–164. doi:10.1080/17441690801900837
- Smith, K. E., Bamba, C., Joyce, K. E., Perkins, N., Hunter, D. J., & Blenkinsopp, E. A. (2009). Partners in health? A systematic review of the impact of organizational partnerships on public health outcomes in England between 1997 and 2008. *Journal of Public Health*, 31, 210–221. doi:10.1093/pubmed/fdp002
- Stillman, F., Yang, G., Figueiredo, V., Hernandez-Avila, M., & Samet, J. (2006). Building capacity for tobacco control research and policy. *Tobacco Control*, 15(Suppl. 1), i18–i23. doi:10.1136/tc.2005.014753
- Trostle, J. (1992). Research capacity building in international health: Definitions, evaluations and strategies for success. *Social Science & Medicine*, 35, 1321–1324. doi:10.1016/0277-9536(92)90035-O
- Van den Broucke, S., Jooste, H., Tlali, M., Moodley, V., Van Zyl, G., Nyamwaya, D., & Tang, K.-C. (2010). Strengthening the capacity for health promotion in South Africa through international collaboration. *Global Health Promotion*, 17(Suppl. 2), 6–16. doi:10.1177/1757975910363923
- Vasquez, E. E., Hirsch, J. S., Giang, L. M., & Parker, R. G. (2013). Rethinking health research capacity strengthening. *Global Public Health*, 8(Suppl. 1), S104–S124. doi:10.1080/17441692.2013.786117
- Weiss, E. S., Anderson, R. M., & Lasker, R. D. (2002). Making the most of collaboration: Exploring the relationship between partnership synergy and partnership functioning. *Health Education & Behavior*, 29, 683–698. doi:10.1177/109019802237938
- Zarowsky, C. (2011). Global health research, partnership, and equity: No more business-as-usual. *BMC International Health & Human Rights*, 11(Suppl. 2), S1.