Australia China Centre for Public Health

Report on 2015 activities and the Research Forum at Peking University, Beijing

December 2015

Professor MaryLou Fleming Director
1.0 Executive Summary

The Australia China Centre for Public Health has been built on long-standing relationships between partner institutions in Australia and China. Since its inception in August 2014 the Centre has used multiple initiatives to support the development of innovative collaborative research opportunities including research forums, joint journal publications and submission of research grants.
Key outcomes have included hosting two annual research forums, an inaugural forum at the Queensland University of Technology in Brisbane Australia in 2014 and a second at Peking University Health Science Center in Beijing China in 2015. There has been an increase in student exchange initiatives and joint supervision of PhD students between Australian and Chinese universities. Significant progress has been made towards the development of new collaborative research projects in priority health areas for both China and Australia, and it is expected that these projects will continue to develop in 2016. In particular, Sun Yat-sen University and QUT have collaborated on a joint NHMRC project grant in 2015 and have submitted a grant to the National Science Foundation of China.

The Research School of Population Health, ANU College of Medicine, Biology and Environment, the Australian National University joined the partnership in late 2015.

2.0 Introduction

The Australia China Centre for Public Health (ACCPH) has been in operation since August 2014. The signing of Memorandums of Understanding between all of the partners to the centre occurred at the launch of the Centre on the 1st August 2014 at QUT. The first Forum was held on the 2nd to 3rd August 2014.

The development of research projects of high quality has been the focus of 2015. At the most recent ACCPH Forum at Peking University, Beijing, China the forum was entirely devoted to the development of high quality research projects that could be submitted for funding in both China and Australia. These developments are discussed later in this report.

The Centre has committed to the following activities to ensure a broad range of academic collaboration occurs on a regular basis:

- Staff and student exchange programs;
- Professional development programs;
- Joint Higher Degree research program;
- Collaborative research projects;
- Joint publications.

2.1 Aim and Objectives

Aim

The Centre has a strong commitment to staff and student exchange, ongoing professional development opportunities and the development of collaborative research projects with key partners that are relevant and responsive and that will translate research findings into practice.

Objectives

The Centre objectives include:

- Establishment of a virtual centre between all of the partner Universities that utilises a specifically designed web site to showcase the range of activity in the centre;
• Develop an executive committee and a management committee to set overall strategic direction for the Centre and to manage the day to day activities of the centre.

• Hold a yearly research forum to facilitate ongoing collaboration between partner organisation researchers and students

• Support high standards of postgraduate training, continuing professional development and academic staff and student exchange programs.

3.0 First 12 months of operation

3.1 Operational and Organisational Structure

Establishment of Web Site
An interactive web site is established to provide a vehicle for dissemination of research information about public health evidence based practice in China and Australian, a detailed portal for information and outcomes of each of the research forums, a home page, partner information page, contact details and list of joint publications.

Each partner university is linked to the web site. The site is initially situated and supported financially by the QUT Faculty of Health and maintained by the Centre. The site is located at: www.accph.qut.edu.au/

Executive Committee
The Executive Committee focuses on the strategic direction for the Centre and facilitates higher level conversations about Centre aims and objectives, outcome measures and future initiatives. Composition of the Executive Committee includes:

  • Dual Chair – Professor Ross Young QUT and Professor Weigang Fang, Vice President, Peking University Health Science Centre;
  • A representative from each University;
  • The Centre Director and Deputy Director.

The Executive Committee met face to face at the 2015 Annual Research Forum at Peking University.

Management Committee
A Management Committee include representatives from each of the collaborating Institutions and will be responsible for the day to day activities of the Centre. Composition of the Management Committee will include:

  • Co-Directors and a Deputy Director.
  • Head of School or nominee from each University.
  • A research representative from each University
  • Centre Manager.

The Management Committee has met virtually on a quarterly basis to facilitate the development and implementation of the operational and communication plans and the 2015 Forum.

Centre Director
Two co-Directors are Professor MaryLou Fleming and Prof Qingyue Meng and Associate Professor Xiang-Yu Janet Hou the Deputy Director. The Centre Manager is Ms Olivia Fisher and a Deputy Manager, Ms Keira Fan.
3.2 University Composition
Professor Archie Clements, Director and Professor of the Research School of Population Health ANU College of Medicine, Biology and Environment, the Australian National University attended the Research Forum in Beijing. ANU was subsequently accepted as a member of the ACCPH effective from November 2015.

3.3 Collaborative Activities
Key activity have commenced in the following broad areas:

- Annual Research Forum
- Staff and Student Exchange
- Joint Higher Degree Research Programs

Staff and Student Exchange
A key focus of the activities in 2016 is the facilitation, coordination and funding of short term reciprocal exchanges of PhD students and early/mid-career researchers between Australian and Chinese research sites. Host universities will provide advice and support for visiting staff and students, in addition to access to desk space, equipment and other facilities required to complete the exchange project.

Professor Guanghui DONG, Sun Yat-sen University, visited Profs Paul and Morawska between 18 – 20 November 2015 for collaborative research discussions. The Centre has been successful in applying for the 2016 New Colombo Plan Mobility Program Funding to support QUT student Placement in China.

Professional Development Opportunities
While in Beijing, Professors Hu, Fleming and FitzGerald met with Dr Junhua Zhang from the Chinese Ministry of Health to provide advice on the development of up to three professional development programs for both Provincial health service managers and leaders in health service management in Beijing. Professor Zhang will provide further written advice to QUT early in 2016.

Joint HDR Program
The establishment of joint PhD programs with the Chinese partner institutes is a key element of the Centre and for QUT. QUT now has in place an overarching Agreement for Joint PhD Programs and Joint PhD Guidelines.

3.4 Priority areas for action
The 2015 Research Forum hosted by Peking University focused on the development of collaborative research projects amongst partner Universities. Five research themes were established. These research themes include:

- Child and Adolescent Health
- Population Health
- Health Services Research
- Health, Safety and Environment
- Infectious Diseases

4.0 Research Outcomes
There were a number of potential areas for research project development that emerged from the two day Research Forum in Beijing. Specifically, the following projects are most likely in the short
term to produce joint papers, have PhD students attached and be working or already submitting to Australian or Chinese research funding bodies:

**Population Health**

- The study of the impact of human movement and environment on Dengue Fever transmission; SYSU: Jiahai LU (Submitter), Zhenjian HE, Qin XIAO; QUT: Wenbiao Hu, Francesca D. Frentiu.
- Shenzhen Longhua Child Cohort study in Guangdong province (3 yrs - 16 yrs old) exploring the physical and mental impacts of genetic and environmental factors on child development. Investigators: Prof Chen Weiqing from SYSU and A/Prof Janet Hou from QUT.
- Additional potential research development may include to collect additional data retrospectively around antibiotic purchasing behaviours of parents and antibiotic resistance. Researchers included Professor Lisa Nissan (Clinical Sciences QUT) and Professor Archie Clements (ANU) Investigators – Prof Chen from SYSU, A/Prof Janet Hou from QUT.

**Infectious Disease**

- Two national research grant proposals were submitted by Ass Prof Wenbiao Hu (QUT) and Prof Jiahai Lu (from SYSU) to the 2015 National Natural Science Foundation of China and a 2015 NHMRC project grant.
  - Proposal I: Spatiotemporal analysis of HIV/AIDS prevalence in Shandong province, China and Designing HIV/AIDS Intervention Strategies (Prof. Jihua Fu from Shandong CDC): – Send a visiting fellow to SPH, QUT. The visiting fellow will work at the project for one year. The fees for the visiting fellow could be covered by Shandong CDC;
  - Proposal II: Human population movement and spread of infectious diseases. (Professor Li Ling from Sun Yat-sen University);
  - Proposal III: Rapid assessment of vaccine effectiveness (Prof. Jihua Fu and Dr. Jiaye Liu from Shandong CDC) – Send a visiting fellow to SPH, QUT. The visiting fellow will develop dynamic mathematic model under QUT staff support. The fees for the visiting fellow could be covered by Shandong CDC;
  - Proposal IV: Climate Change and Infectious Diseases (Prof. Wei Ma from Shandong University) – Publication and research proposal.

**Health, Safety and Environment**

- Project 1
  SYSU – QUT: NHMRC – NSF grant proposal 2016
  Mater family cohort and Guangdong Province cohort study: Environmental pollution and adverse birth outcomes (Prof.Dong, SYSU; Prof. Morawska; Dr.Paul, QUT);
- Project 2
  Indoor air quality and adverse health outcomes: cross-sectional study (Prof.Dong, SYSU; Prof. Huang, PKU; Prof.Morawska; Dr.Paul, QUT);
- Project 3
  Effective research transition and policy alignment in climate change management (Prof.Dong, SYSU; Prof. Huang, PKU; Dr.Paul, QUT);

In addition, QUT-SYSU joint project applications submitted to the Guangdong Provincial Department of Science and Technology include:
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<th>No.</th>
<th>Project Title</th>
<th>Lead researchers from SYSU and QUT</th>
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<tbody>
<tr>
<td>1</td>
<td>The International Joint Center of Public Health</td>
<td>SYSU: Yuantao HAO (Submitter), Cunrui HUANG, Jiahai LU, Jing GU, Wen CHEN, Dong XU: QUT: Shilu Tong</td>
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<td>2</td>
<td>Establishment and application of key technical system about environmental pollution health effect evaluation based on biomonitoring equivalents - The Precise Birth Cohort Study</td>
<td>SYSU: Guanghui DONG (Submitter), Yuantao HAO, Qiansheng HU, Xiaowen ZENG; QUT: Paul Gunther, Lidia Morawska.</td>
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<td>3</td>
<td>The impact of climate change on population health and development of adaptation strategies in Guangdong Province, China</td>
<td>SYSU: Cunrui HUANG (Submitter), Yuantao HAO, Yuming CHEN, Guanghui DONG, Qiong WANG, Lianping YANG; QUT: Shilu Tong, Ross Young, Gerard FitzGerald, Wenbiao Hu, Zhiwei Xu.</td>
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<tr>
<td>4</td>
<td>The study of the impact of human movement and environment on Dengue Fever transmission</td>
<td>SYSU: Jiahai LU (Submitter), Zhenjian HE, Qin XIAO; QUT: Wenbiao Hu, Francesca D. Frentiu.</td>
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**Nursing**

A concurrent Sino-Australian Nursing Forum was held on Friday 13 November 2015. The forum was attended by over 60 delegates from Peking University School of Nursing and their affiliate hospitals. The program provided an opportunity for researchers from QUT, PKU and PKU’s affiliate hospital to present current work in the areas of cancer care, critical care, wound care and stroke care. Follow up meetings with representatives from the Cancer Hospital of Peking University identified the potential for projects in the area of vascular access device, survivorship care and palliative care. Initially, it is proposed that an existing vascular access audit protocol used in the Australian setting will be translated for use in the Cancer Hospital to enable comparison of practices. Meetings were also held with the newly appointed Dean of PKU School of Nursing who is interested in pursuing exchange opportunities for staff and students.

### 6.0 Conclusion

In just over 12 months including two Research Forums bringing together researchers from 4 Universities and the Shandong CDC there are a number of projects that are considered possible for collaborative funding. Two research projects have collected data with researchers from SYS and QUT. This research is being undertaken by Hu (QUT) and Lu (SYS) and Chen (SYS) and Hou (QUT).

Research applications have also been submitted to the Guangdong Provincial Department of Science and Technology in 2015/16. In addition, the Centre has hosted student exchanges for both inbound
and outbound mobility and the Centre has funding in 2016 for the New Colombo Plan Mobility Program.