Welcome

Welcome to the Queensland University of Technology for the inaugural Research Forum of the Australia China Centre for Public Health (ACCPH). The newly established International Centre brings together universities and organisations from across China and Australia to focus on collaborative research in Public Health. The Centre’s Chinese partners include the Schools of Public Health at Peking University, Shandong University and Sun Yat Sen University; and the Shandong Centre for Disease Control and Prevention. The Centre’s Australian partners include the Faculty of Health at Queensland University of Technology; the School of Population Health at the University of Queensland and the School of Public Health and the Menzies Centre for Health Policy at the University of Sydney. This is an exciting and landmark collaboration as all the afore-mentioned institutions and many of their representatives are recognised as national or international leaders in their respective disciplines.

The inaugural Research Forum brings together a range of research topics under four themes: health systems; population health; child and adolescent health, psychology and nutrition; and health, safety and environment. Delegates from all eight of the Centre’s partner organisations will be presenting. Most importantly, the Research Forum will be an opportunity for the Centre’s partners to discuss the nature and scope of the International centre, its management structure and functions; and its operational mandate. The partners will have a conversation around other potential elements to the International Centre, such as academic and research staff exchange; joint degree opportunities; and the development and submission of collaborative international research proposals.

It is our intention that this Research Forum will bring together researchers, practitioners and decision makers to share knowledge and research approaches that inform policy and practice in a diverse range of health topics.

I look forward to welcoming you all to QUT and to listening to the interesting and diverse exchange of research in this exciting forum as the precursor to continued momentum for our collaborative International Centre.

Here’s to a great beginning!

Best Wishes

Mary Lou Fleming
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   (listed alphabetically by author’s surname)
On behalf of Peking University Health Science Center, I would congratulate the establishment of the Australia-China Centre for Public Health, and thank all partners especially the Queensland University of Technology for making this possible.

As the most prestigious comprehensive medical institution in China, Peking University Health Science Center (PUHSC) developed out of Peking Medical School, the first national school of western medicine established by the Chinese government through its own efforts. Since its inception in 1912, PUHSC has cultivated a large number of high-level medical and health talents for the country, and has made outstanding contributions to improving the health of Chinese people.

PUHSC has five academic schools, namely, School of Basic Medical Sciences, School of Pharmaceutical Sciences, School of Public Health, School of Nursing, and Faculty of Foundation Education. In addition, it has eight nationally known affiliated hospitals. PUHSC is contributing to medical education, scientific research, and clinical service. It attaches importance to the education of undergraduate and postgraduate students.

The School of Public Health (SPH) can be traced to 1931 when a division of public health in Peking University was set up. The vision of SPH is to improve health of Chinese people through education, research, and social services. Over the past 60 years, the school has grown from an office of fewer than ten faculty members to a leading public health school in China that hosts 170 faculty members and staff, 1,000 including doctoral candidates, Master’s degree candidates, and undergraduates. Over the past six decades, SPH has made great contributions to the country in health improvements by providing high quality public health professionals, knowledge and evidence generation, and social services.

China is facing a number of health challenges including rapidly growing burden of noncommunicable diseases, prevalence of health risk factors due to changes of life style and urbanization, transition of the population structures, and limited capacity of the health systems. To address those health issues needs collaboration. Besides collaboration between Chinese academic institutions, it is particularly important to learn good international experiences. Australia academia are very advanced in the world in education and research in relation to improvement of population health. This center provides a good platform for collaboration between Chinese and Australian researchers. I am sure the collaboration will produce high quality academic products to benefit improvement of health of the people.

Wish a great success of the Australia-China Centre for Public Health.
Shandong Centre for Disease Control and Prevention

Shandong Center for Disease Control and Prevention (Shandong CDC) was established on January 8, 2003 as a public health institute, descended from the former Health and Epidemic Prevention Station of Shandong Province. The center is the technical guidance institution of disease prevention and control of the whole province. It is mainly responsible for disease prevention and control, public health emergencies response, disease reporting and health-related information management, health-related risk factor surveillance and intervention, laboratory analysis and evaluation, health education and health promotion, health technology management and applied research.

The center consists of 33 departments including 8 administrative departments, 17 professional departments, 6 logistics departments and other 2 departments. The professional departments include institutes of infectious diseases control, chronic and non-communicable diseases control, immunization management, etc. The total staff of the center is 400 and more than 40 people among them are postgraduate tutors and professors, moreover, there are several famous state-level preventive medicine experts in the center.

Australia-China Centre for Public Health will establish a new bridge between the two nations in health sector. I expect more effective and convenient cooperation for scientific research, postgraduate education as well as any other possible academic communications and relevant resource sharing and utilization among all the partners. On behalf of Shandong Provincial Centre for Disease Control and Prevention, I am glad to see you doing public health research in the second largest province of China and will try my best to support related activities.

Dr Bi Zhenqiang
Director
Shandong Provincial Centre for Disease Control and Prevention, China
School of Public Health, Shandong University, formerly Department of Public Health of Shandong Medical University, was established in 1952. The school consists of five departments: Department of Epidemiology and Health Statistics, Department of Environmental Health, Department of Hygiene Detection, Department of Health Administration and Maternal and Child Hygiene, Department of Nutrition and Food Hygiene. Besides, five research centers are affiliated to the school, namely Center for Public Health and Preventive Medicine, Center for STD/HIV Prevention and Control, Center for TB Control, Shandong University Climate Change and Health Center, Center for Suicide Prevention Research, and Center for Healthy Aging and Longevity.

The school has ninety faculty members, including twenty-two professors, nineteen professors, and twenty-two lecturers, including one professor of “Thousand Person Plan” (distinguished expert invited by the Organization Department of the CPC), one expert of “Outstanding Experts of Shandong Province”, two committee members of Education Committee of Ministry of Education, and five chair professors of Shandong University. Besides, dozens of faculties are concurrently members of relevant national organizations and committees. All the faculties together form a reasonably organized teaching team and a high level research team.

There are currently around 600 undergraduate students, 300 graduate students, 260 Master of Public Health students, 100 part time postgraduate students, and 1600 continuing education students in the School of Public Health. The school succeeds in creating good academic and teaching atmosphere, for it puts the quality of teaching in the first place. The School is making constant breakthroughs in scientific research and has been constantly strengthening international cooperation. In the future, the school will make constant progress in teaching effectiveness and scientific research competence, improve its social influence, and try to reach the world leading level.

Best Wishes to the organization of Australia China Center for Public Health. Hope to have strong collaboration among all partners, and make great progress in public health training and research.
Sun Yat-sen University, School of Public Health

Sun Yat-sen University School of Public Health traces its roots to the establishment of Hygiene Teaching and Researching Section in 1956. Now the School has Department of Preventive Medicine, Department of Nutrition, Department of Maternity and Child Hygienics, Department of Medical Statistics and Epidemiology, Department of Health Management, Experimental Teaching Center and 3 Executive Offices. Meanwhile, the School has several research institutes such as Preventive Medicine Research Institute, Health Management Training Center and Sun Yat-sen Center for Migrant Health Policy (CMHP).

The School has 61 full-time teachers, a high-quality and active academic team with a reasonable age structure. The School always regards the cultivation of professional personnel in Public Health and Preventive Medicine as a fundamental task, establishing a distinctive educational philosophy of "education-oriented, scientific research-led and social service-supplemented". The School has 1600 to 1700 current students every year, including 700 undergraduate students, 900 master graduates and 100 doctor graduates.

The School has an experimental platform with more than 3000 square meters, and a full set of scientific facility whose total value is more than 30 million yuan. The School offers various scientific and technological service through sorts of platforms and bases, exerting certain influence in Guangdong Province and even the whole country and making significant contribution to local economic development.

In today's world, public health is facing increasingly severe challenges, such as the threats from old and new infectious diseases, heavy disease burden caused by chronic non-communicable diseases, social and health problems related to aging, as well as problems caused by climate change, environmental pollution, unhealthy behaviors, food safety issues, occupational health problems, unequal development and population mobility. Under the development of globalization, these problems are no longer confined to one region or one country. They have crossed the borders and become global issues. The respond to these issues requires global collaborations. What is the role of public health education in dealing with these challenges?

The China-Australia public health forum held by Queensland University of Technology will provide a good platform for the exchange between professionals in the field of public health education from both China and Australia. I believe this forum will promote comprehensive collaborations between China and Australia in public health and will provide solutions to the local and global health problems.

I wish the Conference a complete success.
The vision for the QUT Faculty of Health is to make significant contributions to the improvement of human health and wellbeing and to the development of Australia’s healthcare policy and services through our teaching, research and service activities.

We are a large and vibrant faculty, educating professionals in a wide range of health-related fields that lead to rewarding and successful careers. We have more than 10,000 students enrolled in undergraduate, postgraduate coursework, and research higher degree programs across seven schools – Biomedical Sciences, Clinical Sciences, Exercise and Nutrition Sciences, Nursing, Optometry and Vision Science, Psychology and Counselling, and Public Health and Social Work. The Faculty’s graduates are highly sought after in the commercial, scientific, health and community sectors. Our applied research activity, largely conducted in concert with the Institute of Health and Biomedical Innovation (IHBI), is focussed on improving health and preventing disease.

This first Research Forum of the Australia China Centre for Public health is a significant milestone for our seven partner institutions.

For those of you visiting from China, we welcome you to Australia and Queensland in particular. If this is your first visit we hope that you have the opportunity to explore some of our beautiful attractions and that you enjoy our hospitality. There are many common public health challenges facing China, Australia and our region. The research featured at this forum is progressing solutions to some of our most crucial public health issues such as improving child health, preventing obesity and confronting the health impacts of environmental pollution.

My thanks to Professor MaryLou Fleming, Associate Professor Janet Hou and Ms Anne-Marie Lacaze for all their hard work in arranging this meeting. As a senior staff member of QUT, the host institution, I look forward to supporting the collaborations between Australia and China, to meeting you personally and hearing your work. I am sure that the Forum will be enjoyable and productive.

Institute for Health and Biomedical Innovation, QUT

IHBI - The Institute of Health and Biomedical Innovation - is a collaborative institute based at QUT, devoted to improving the health of individuals through research innovation. We combine high quality health research with a commitment to social justice. This means that we do more than develop innovative solutions to health issues. We also apply our solutions to real world experiences to make sure that they are effective. Through our work, we seek to improve the health of individuals and of communities. IHBI’s researchers focus on three broad health areas: prevention, intervention and translation.
The University of Queensland was the first university in the state, established through a 1909 Act of State Parliament. It was officially founded in April 1910 with the first appointments to the UQ Senate. Teaching started in 1911 in Old Government House in George Street, Brisbane. In the first year there were three faculties – Arts, Science and Engineering – and 83 students (60 men and 23 women). Today, the university's students include most of the State's top school leavers plus high achievers from interstate and overseas. UQ's 45,000-strong student community includes 12,000 postgraduate scholars and almost 11,000 international students from 134 countries. The University has one of the largest PhD enrolments in Australia, and is among the nation's top three universities for PhD completions.

The School of Population Health aims to be a global leader in improving the health of populations in a changing and inequitable world. Established in 2001, the School of Population Health engages in research that is focused on making a real impact on some of the world's most pressing population and public health challenges. Recent benchmarking by the Australian Research Council ranked our health research as amongst the world's best. Over the past decade, the School has established a reputation for research that is comprehensive and influential. Current priorities include public health, prevention and health promotion; mental health; alcohol, tobacco and other drugs; epidemiology and biostatistics; infectious diseases and environmental health; women and children's health; and the health of specific population groups. Research is undertaken by leaders in their fields and supported by competitive grants awarded by some of Australia and the world's most prestigious funding bodies. Our researchers maintain collaborations with high-profile partners in academia and industry and engage with global policy makers. Their results inform health policy and practice both at home and around the world. Excellence in research and teaching is reflected in an outstanding academic program which covers all fields of population and public health. Our student body is diverse and drawn from many countries of the world. The University of Queensland has won more awards for teaching, and conducts world class research in more fields, than any other Australian university.

Fast facts:
- More than $13 million annual income for research, Australian Aid initiatives and consultancy work
- Over 500 students
- More than 170 professional and academic staff from all fields of public and population health
- Our research is supported by national and international funding from prestigious competitive schemes including the Bill and Melinda Gates Foundation, the Department of Foreign Affairs and Trade, The National Health and Medical Research Council and The Australian Research Council
- Seven Centres based within the School conduct research in cancer prevention; alcohol, tobacco and other drugs; burden of disease and cost-effectiveness; international and tropical health; linked health data; longitudinal lifecourse research; and clinical trials and biostatistics
- More than 100 research higher degree students
- High-level partnerships with the Queensland Government, the Department of Health and Ageing, the Department of Foreign Affairs and Trade and QIMR Clive Berghofer
- International collaborators include the Swiss Tropical and Public Health Institute, the World Health Organization, UNICEF and several ministries of health, particularly in South East Asia
Since its beginnings in 1850, the scholars and students of University of Sydney share a passionate commitment to the transformative power of education. Our research makes a real difference to our understanding of today’s world and how we work and live in it, and we enrich our community by bringing together people from all social and cultural backgrounds. With over 50,000 students the student body of Sydney university represents 134 countries.

The vision for the School of Public Health vision is for a global community where everyone’s needs for good health and wellbeing are met. Our vision extends to those with the greatest need, who would benefit most from improved health and reduced inequalities.

Achieving these goals comes in many forms: generating knowledge of the public health problem, advocating for change and solutions, and helping implement those changes. There are some significant challenges to public health. Global warming and the changing environment, and persistent inequalities in economic and social wellbeing, mean that we need to think of broader and more inclusive approaches to solving these major threats to global health.

Our School values innovation, justice and respect for others. The pursuit of our vision and mission requires integrity, rigorous social and scientific enquiry, and a collegiate environment. Our School is committed to our staff, our students, our community, our profession and our partners.

The University of Sydney Menzies Centre for Health Policy

The Menzies Centre for Health Policy (MCHP) is the leading independent scholarly voice on health policy in Australia. It brings together scholars and practitioners with broad expertise in health policy, economics and health services research to produce high-quality analyses of current health policy issues, deliver annual public seminars, education programs and undertake comprehensive research projects. MCHP’s research program addresses four themes that include policies for health futures, serious and continuing illness, equity and governance.
Health Priorities in China

By A/Prof Xiang-Yu (Janet) Hou

1. Basic/primary health insurance system in China:
   a. Health cover for rural farmers: how to recruit the fund, what to cover, and when allowed to see doctors from other areas or provinces;
   b. Health workers at villages: their role in providing primary health care and what should be covered by the insurance policy

2. Remove the funding source of pharmacy, increase the funding from the government, and undertake further public hospital reform:
   a. Each province will have a trial city
   b. Guideline and regulations about hospital management including HR, finance, and quality of care.
   c. County level hospital reform: a partner from the city, reduce the funding from the pharmacy, establish at least one specialty department; if the population is more than 300k, there should be at least one hospital reaching the level 2A;
   d. Encouraging private providers to contribute to public hospital reform and develop facilities such as aged care, palliative care, rehab, elderly hospital.

3. Health professional’s education and training, especially General Practitioners or community doctors:

4. Pharmacy reform

5. Separate the management from the operation:

6. Public health services:
   a. focus on migration works (migrated from rural to cities) and their children, and elderly. Undertake disease prevention (public health) monitoring among the migrants in 40 cities in China.
   b. Infectious disease control at the borders
   c. Develop a national level mental health guideline and regulations
   d. Drink water quality and air quality
   e. Disaster management: air and water rescue, H7N9, etc.
   g. Maternal and child health: west of China and low economic areas
   i. Health education and promotion: in Tibet, smoking control
   j. Food safety

References:
1. Personal communication with DG of International Cooperation, MoH; DG of Disease Control and Prevention, MoH;
2. Reform Guideline for county level public hospitals in China, MoH, March 2014
3. Speech from Premier Li Keqiang, regarding county level public hospital reform, April 2014
4. Guidelines for society to contribute to health providers, MoH, 2013
Focus of MoH’s future work, MoH, January 2014
Deciding on thematic areas for the Australia China Research Forum

In general Australia has a good record in public health and the promotion of health and wellbeing. For example, there are a number of areas where Australia can be said to have made significant progress on health issues including:

- reduction in road-trauma related mortality with alcohol-related measures, laws and community education;
- the response to the emergence of the human-immunodeficiency virus (HIV) involving affected and at-risk communities;
- the multi-faceted response to tobacco control which has Australian smoking rates amongst the lowest in the world.

The contribution to these health issues has been multi-faceted including government responses both State and Federal, the work of public health leaders and advocates, public education, community involvement and the use of data and sustained effort in order to facilitate the ongoing development of an evidence base that informs good practice and can be applied to a range of population health challenges (ANPHA, State of Preventive Health 2013).

Despite these improvements there are still areas of social and health challenges such as the health status and life expectancy of Australia’s Aboriginal and Torres Strait Islander peoples which is much lower than the general population. There is also unequitable distribution of health outcomes and risk factors across socio-economic status that identifies the real importance of the social determinants of health, including education and income.

These factors together with health issues impacting on the health of the Chinese population (see previous information collated by Hou, X 2014) and the areas of research expertise within our partner organisations have led to the development of four major but preliminary research themes around which the inaugural Research Forum has been developed.


Theme Leaders and sessions

**Friday 1 August**

- 3.30pm Prof Meng Qingyue
  - Prof Julie Hepworth
  - Prof LI Shixue
  - Ass. Prof Jin Yu
  - Friday 1 August
  - Prof Hao Yuantao

**Saturday 2 August**

- 9.45am Prof Meng Qingyue
  - Ass Prof Xiang-Hou
  - Prof LI Shixue
  - Ignacio Correa-Velez
  - Ass. Prof Jin Yu
  - Prof Renata Meuter
  - Prof Hao Yuantao
  - Wenbiao Hu
  - Prof Hao Yuantao
  - Gunther Paul

- 11.30am Prof Meng Qingyue
  - Prof LI Shixue
  - Prof Michael Dunne
  - Prof LI Shixue
  - Prof Michael Dunne
  - Ass. Prof Jin Yu
  - Gunther Paul
  - Dr Helen Vidgen
### DAY 1: Friday 1 August 2014

**MORNING SESSION**

**Venue:** Room Three Sixty, Gardens Point Campus, QUT

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>8.00am</td>
<td>Registration</td>
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<tr>
<td>8.20am</td>
<td>Official Greeting and Welcome to Country</td>
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<tr>
<td></td>
<td><strong>Prof Ross Young, Executive Dean, Faculty of Health QUT</strong></td>
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<tr>
<td>8.30am</td>
<td>Opening Address</td>
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<td><strong>Prof Peter Coaldrake, Vice Chancellor QUT</strong></td>
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<tr>
<td>8.40am</td>
<td><strong>OFFICIAL LAUNCH OF THE CENTRE</strong></td>
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<tr>
<td>8.50am</td>
<td>Keynote Address</td>
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<td><strong>Mr Tian Yaoming, Deputy Consul-General of China in Brisbane</strong></td>
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<td>9.00am</td>
<td>Keynote Address</td>
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<td><strong>Prof Weigang Fang, Vice-President, Peking University Health Sciences Centre</strong></td>
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<td>9.10am</td>
<td>Keynote Address</td>
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<td><strong>Prof Scott Sheppard, Deputy Vice Chancellor (International and Development), QUT</strong></td>
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<tr>
<td>9.20am</td>
<td>Official Signing Ceremony</td>
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<td><strong>Representatives from QUT, Shandong University, Shandong Centre for Disease Control and Prevention</strong></td>
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<tr>
<td>9.30am</td>
<td>Official Photographs</td>
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<td>9.35am</td>
<td>Morning Tea</td>
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<tr>
<td>10.00am</td>
<td>Interim Director's Welcome Address</td>
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<td><strong>Prof MaryLou Fleming, Head, School of Public Health and Social Work QUT</strong></td>
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<tr>
<td>10.10am</td>
<td>Partner Presentation - QUT</td>
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<td><strong>Prof Ross Young, Executive Dean, Faculty of Health, QUT</strong></td>
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<tr>
<td>10.30am</td>
<td>Partner Presentation - Peking University</td>
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<td><strong>Prof Qingyue Meng, Dean, School of Public Health, PKU</strong></td>
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<tr>
<td>10.50am</td>
<td>Partner Presentation - University of Queensland</td>
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<td><strong>Prof Charles Gilks, Head, School of Population Health, UQ</strong></td>
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<tr>
<td>11.10am</td>
<td>Partner Presentation - Sun Yat-sen University</td>
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<td><strong>Prof Yuantao Hao, Dean, School of Public Health, SYSU</strong></td>
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<tr>
<td>11.30am</td>
<td>Partner Presentation - University of Sydney School of Public Health and Menzies Centre</td>
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<td><strong>Prof Glenn Salkeld, Head, School of Public Health, USyd</strong></td>
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<tr>
<td>11.50am</td>
<td>Partner Presentation - Shandong University and Shandong CDC</td>
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<td><strong>Prof Shixue Li, Dean, School of Public Health, SU</strong></td>
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<td>12.10am</td>
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<td></td>
<td><strong>Chair, Prof MaryLou Fleming</strong></td>
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<tr>
<td>12.15pm</td>
<td>Lunch in Room Three Sixty</td>
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</table>
**Day 1: Friday 1 August 2014**

**Afternoon Session**

**Venue: Room Three Sixty, Gardens Point Campus, QUT**

1.30pm ACCPH Partners Meeting: Mission, Structure, Themes, Activities and Funding for the Centre, including process issues for the functioning
   Chair, Prof MaryLou Fleming

2.00pm Afternoon Tea

**Concurrent Session 1**

**Health Systems**

**Session Chairs: Prof Qingyue Meng and Prof Julie Hepworth**

**Venue: D Block, Room 214**

3.30pm Opportunities for Acute Health System Research in China
   Assoc Prof Xiang-Yu (Janet) Hou, QUT

3.50pm Professional analysis of medical staff in public hospitals in China
   Prof Shaoxian Chen, SYSU

4.10pm Research on the development of nursing home care: demand and supply
   Prof Shixue Li, SU

4.30pm The role of health law in health services research
   Prof Ben White, QUT

4.50pm Discussion
   Session Chairs

**Population Health**

**Session Chairs: Prof Shixue Li and Prof Michael Dunne**

**Venue: D Block, Room 413**

3.30pm The Women’s Wellness after Cancer Program: A National Multisite Randomised Clinical trial of an E-Health enabled lifestyle modification intervention to improve the health and wellness of women after cancer treatment
   Prof Deborah Anderson and Dr Wei Song, QUT

3.50pm Mortality of esophageal cancer in Shandong, China: Consistent spatial pattern despite a marked decrease over the last 20 years.
   Dr Jiandong (Hansen) Sun, QUT

4.10pm Provision of survivorship care for patients with cancer after the completion of treatment in the Asia pacific region: An International cancer nursing collaborative study
   Dr Raymond Chan, QUT

4.50pm Discussion
   Session Chairs

**Child and Adolescent Health, Psychology, Nutrition**

**Session Chairs: Assoc Prof Yu Jin and Prof Amanda Lee**

**Venue: D Block, Room 416**

3.30pm Can a text message a week improve breast feeding duration?
   Assoc Prof Danielle Gallegos, QUT

3.50pm The translation of an evidence based childhood obesity management program from RCT to universal care
   Dr Helen Vidgen, QUT

4.10pm Traditional dietary beliefs and child feeding practices of Chinese mothers in Australia
   Wei-Hong (Wendy) Liu, QUT

4.30pm Energy-balance related behaviors, nutrition and obesity prevention in Chinese children
   Dr Liubai Li, PKU

4.50pm Discussion
   Session Chairs

**Health Safety and Environment**

**Session Chairs: Prof Yuantao Hao and Dr Gunther Paul**

**Venue: A Block, Room 101**

3.30pm Chinese rural older people and climate change adaptation – What do we know and how can we help?
   Dr Ying Zhang, University of Sydney

3.50pm Climate change challenge: identifying, forecasting and reducing impacts on population health
   Professor Shilu Tong, QUT

4.10pm Air pollution associated hypertension and increased blood pressure may be reduced by breastfeeding in Chinese children
   Prof Guanghui Dong, SYSU

4.30pm Projecting the impact of future climate change on the transmission of Ross River virus disease
   Dr Wei Wei (Vivian) Yu, QUT

4.50pm Discussion
   Session Chairs

**7.15pm Formal Dinner**

**Venue: Rydges Rooftop, Southbank**
# DAY 2: Saturday 2 August 2014

## MORNING SESSION

**Venue:** Science and Engineering Centre, P Block, Room 512, Gardens Point

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<th>Session</th>
<th>Venue</th>
<th>Chair(S)</th>
<th>Topic</th>
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<tr>
<td>8.30am</td>
<td>Registration Day 2</td>
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<tr>
<td>9.00am</td>
<td>Plenary Session 1</td>
<td>P Block, Room 512</td>
<td>Prof MaryLou Fleming</td>
<td>Welcome and Review of Day 1</td>
</tr>
<tr>
<td>9.30am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 512</td>
<td>Prof Qingyue Meng and Assoc Prof Xiang-Yu (Janet) Hou</td>
<td>Molecular mechanisms on the cinnabar’s biotransformation and neuropharmacological effects Prof Qi Wang, PKU</td>
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<tr>
<td>9.45am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 506</td>
<td>Prof Shixue Li, Assoc Prof Ignacio Correa-Velez and Prof Michael Dunne</td>
<td>Association of physical activity and polymorphisms in FGFR2 and DNA methylation related genes with breast cancer risk Prof Zefang Ren, SYSU</td>
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<tr>
<td>9.45am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 506A</td>
<td>Assoc Prof Yu Jin and Assoc Prof Renata Meuter</td>
<td>Anthocyanin supplementation improves HDL-associated paraoxonase 1 activity and enhances cholesterol efflux capacity in subjects with hypercholesterolemia Prof Min Xia, SYSU</td>
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<tr>
<td>9.45am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 413</td>
<td>Prof Yuantao Hao, Dr Wenbiao Hu and Dr Gunther Paul</td>
<td>Is Australia ready for biosimilars? Dr David Lim, QUT</td>
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<tr>
<td>9.45am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 506A</td>
<td>Prof Qi Wang, PKU</td>
<td>Association of physical activity and polymorphisms in FGFR2 and DNA methylation related genes with breast cancer risk Prof Zefang Ren, SYSU</td>
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<td>Concurrent Session 2</td>
<td>P Block, Room 506A</td>
<td>Assoc Prof Yu Jin and Assoc Prof Renata Meuter</td>
<td>Anthocyanin supplementation improves HDL-associated paraoxonase 1 activity and enhances cholesterol efflux capacity in subjects with hypercholesterolemia Prof Min Xia, SYSU</td>
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<td>10.05am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 413A</td>
<td>Dr Danette Langbecker, QUT</td>
<td>Relationship between supportive care needs, distress and use of multidisciplinary rehabilitation, community and psychosocial support services among adults with primary brain tumours Dr Danette Langbecker, QUT</td>
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<tr>
<td>10.05am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 506A</td>
<td>Dr Peter Collins, QUT</td>
<td>Nutritional support and functional capacity in chronic obstructive pulmonary disease (COPD): a systematic review and meta-analysis Dr Peter Collins, QUT</td>
</tr>
<tr>
<td>10.25am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 413A</td>
<td>Dr Scott Read, QUT</td>
<td>Outdoor activity and childhood myopia Dr Scott Read, QUT</td>
</tr>
<tr>
<td>10.25am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 506A</td>
<td>Dr Jenny Zhang, UQ</td>
<td>A new model of integrated primary-secondary care for complex diabetes in the community Dr Jenny Zhang, UQ</td>
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<tr>
<td>10.45am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 413A</td>
<td>Dr Zhiwen Li, PKU</td>
<td>Fetal neural tube defects: environment, genetics and epigenetics Dr Zhiwen Li, PKU</td>
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<tr>
<td>10.45am</td>
<td>Concurrent Session 2</td>
<td>P Block, Room 506A</td>
<td>Dr Mu Li, USyd</td>
<td>Sustained iodine deficiency disorders elimination program in China: What can be learnt from China’s approach to the public health program? Dr Mu Li, USyd</td>
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## CONCURRENT SESSION 2

**Health Systems**

Session Chairs: Prof Qingyue Meng and Assoc Prof Xiang-Yu (Janet) Hou

**Population Health**

Session Chairs: Prof Shixue Li, Assoc Prof Ignacio Correa-Velez and Prof Michael Dunne

**Child and Adolescent Health, Psychology, Nutrition**

Session Chairs: Assoc Prof Yu Jin and Assoc Prof Renata Meuter

**Health Safety and Environment**

Session Chairs: Prof Yuantao Hao, Dr Wenbiao Hu and Dr Gunther Paul
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<tr>
<td>2.00pm</td>
<td>Current health culture constructions and considerations in China</td>
<td>Prof Chunling Sun, Shandong Academy of Medical Sciences</td>
<td>P Block, Room 413</td>
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<tr>
<td>2.30pm</td>
<td>Effect of a ‘hospital in the nursing home’ program on reducing emergency</td>
<td>Lijun Fan, QUT</td>
<td>P Block, Room 406</td>
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<tr>
<td>3.00pm</td>
<td>Doctor’s knowledge of traumatic brain injury at pre-hospital settings in</td>
<td>Kou Kou, QUT</td>
<td>P Block, Room 406A</td>
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<tr>
<td>3.25pm</td>
<td>Afternoon Tea</td>
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<tr>
<td>3.40pm</td>
<td>The management of medicine</td>
<td>Dr Sheila Dogrelli, QUT</td>
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<tr>
<td>4.00pm</td>
<td>Responding to the needs of rural communities: promoting the development of</td>
<td>Dr Judith Burton, QUT</td>
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<tr>
<td>4.20pm</td>
<td>Better health outcomes for people with physical disabilities in China</td>
<td>Dr Julie King, QUT</td>
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<tr>
<td>4.40pm</td>
<td>Discussion</td>
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<td>5.10pm</td>
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<td><strong>CONCURRENT SESSION 3</strong></td>
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<tr>
<td>2.00pm</td>
<td>A study on the pupil’s smoke exposure and its influence factors in Shandong</td>
<td>Dr Tong Sun, SCDC</td>
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<tr>
<td>2.30pm</td>
<td>Mediation of inflammation and placenta on the relationship between maternal</td>
<td>Prof Wei-Qing Chen, SYSU</td>
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<tr>
<td>2.55pm</td>
<td>Capability for tobacco control of disease control and prevention institutions in Shandong province</td>
<td>Mr Jiaxiang Hou, SCDC</td>
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<tr>
<td>3.00pm</td>
<td>Effect of a ‘hospital in the nursing home’ program on reducing emergency</td>
<td>Lijun Fan, QUT</td>
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<td>3.20pm</td>
<td>Discussion</td>
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<td>3.50pm</td>
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<td>4.00pm</td>
<td>Transport and health in China: recent collaborative research relating to</td>
<td>Dr Mark King, QUT</td>
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<tr>
<td>4.20pm</td>
<td>The unequal distribution of road trauma in China: Understanding risk factors</td>
<td>Dr Judy Fleiter, QUT</td>
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<td>4.40pm</td>
<td>Investigations of alcohol-related driving in China</td>
<td>Mr Keqin (George) Jia, QUT</td>
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<td>5.00pm</td>
<td>Discussion</td>
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<td>5.30pm</td>
<td>Session Chairs</td>
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<td><strong>Evening Free</strong></td>
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### DAY 3: Sunday 3 August 2014

#### MORNING SESSION

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<td>9.00am</td>
<td>Delegates Arrive</td>
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<tr>
<td>9.15am</td>
<td><strong>PLENARY SESSION 2</strong></td>
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<td>Outcomes of Thematic Sessions</td>
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<td>Chair, Prof MaryLou Fleming</td>
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<tr>
<td>10.00am</td>
<td>Morning Tea</td>
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<td>Venue: The Pantry, Old Government House</td>
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<td>10.45am</td>
<td><strong>PLENARY SESSION 3</strong></td>
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<td></td>
<td>Finalisation of Centre Structure and Function</td>
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<td>Chair, Prof Qingyue Meng</td>
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<tr>
<td>11.30am</td>
<td>Forum Sessions Conclude</td>
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<tr>
<td>12.00pm</td>
<td>Botanical Gardens Walk</td>
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<td>12.30pm</td>
<td>Farewell Lunch</td>
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<td></td>
<td>Venue: The Stamford Plaza</td>
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<tr>
<td>2.00pm</td>
<td>Forum Officially Concludes</td>
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The Women's Wellness after Cancer Program: A National Multisite Randomised Clinical Trial of an E-Health Enabled Lifestyle Modification Intervention to Improve the Health and Wellness of Women after Cancer Treatment

Anderson, D.1, McCarthy, A. L.1, Tjondronegoro, D.1 Porter-Steele, J., Yates, P.1, Turner, J.1, King, N.1, Monterosso, L.1, Krishnasamy, M.4, White, K.1, Hall, S.5, Song, W., Seib, C., McGuire, A.4

1 Queensland University of Technology, Qld, 2 Royal Brisbane and Women's Hospital, Qld, 3 University of Notre Dame, WA, 4 Peter MacCallum Cancer Centre, 5 The University of Sydney, NSW, 6 Central Queensland University, Qld

Introduction: Patients previously treated for cancer (or cancer survivors) represent a growing population in Australia; many of whom do not adhere to current smoking, physical activity, or dietary recommendations. Prior research indicates that many cancer survivors are highly motivated to protect their health; however, treating health professionals typically do not actively identify health risks or offer strategies to minimise risk to cancer survivors. Australian health services and organisations do not currently provide structured health promotion programs to support cancer survivors and minimize lifestyle-related health risks.

Aims: To (1) develop, integrate, and optimise e-health enabled interfaces to enable virtual delivery of the program via desktop and mobile computing devices and enhance accessibility for metropolitan and regional women; (2) Evaluate the efficacy and sustainability of the e-health enabled program; (3) evaluate the cost effectiveness of the program compared to usual care via a trial-based and modelled lifetime health economic evaluation; and (4) test the ability of an active intervention to reduce key symptoms of chronic disease and menopause, to promote positive health behaviours; and increase health related quality of life (HRQoL). This presentation will present the project to date with an overview description of the project (Anderson) and showcase the e-health enabled interface designed by the project (Wei).

Methods: The Randomised Controlled Trial design will include an active intervention phase and an observational phase to assess trends in HRQOL, and other variables following the active intervention. All procedures will follow the CONSORT guidelines for randomised controlled trials. The study design is a 2 (treatment) x 3 (time) mixed design. Following baseline assessment, patients will be randomised to the WWACP Intervention or Usual Care. The intervention group will receive a 12 week, e-health enabled program, which includes online nurse consultations, and diet and lifestyle advice. The Program is underpinned by Bandura's social cognitive theory which emphasises the notions of perceived control, planned behaviour and self-efficacy.

Discussion: The program is the first broad health initiative in Australia to provide support for a wide range of cancer related health issues and health behaviours that aims to also improve access for rural women via a virtual platform. We predict that WWACP participants will show an increase in HRQoL. We also anticipate that the WWACP will prove more cost effective than usual care in improving HRQoL in women treated for cancer.

Co-presenters Biographies:

Professor Anderson is the founder and the Chief Investigator for the Women's Wellness Research Program. She has over twenty years experience in education, research and management. She has a PhD in Social and Preventive Medicine. Professor Anderson is the Chronic Diseases Management theme leader at the Institute of Biomedical Innovation, and Director of Research of the School of Nursing Queensland University of Technology. Professor Anderson's research aims to promote healthy behaviour change in women with chronic disease including women with diabetes and breast, gynaecological and haematological cancer survivors.

Wei Song is currently a Postdoctoral Research Fellow at the Queensland University of Technology (QUT). She is involved in the Women's Wellness after Cancer Program (WWACP); contributing to eHealth and HCI related research and IT technical support. She obtained her PhD from the Science and Engineering Faculty at QUT in 2012 with the expertise of user-centred study, Quality of Experience modelling and mobile technology.

Informing public health practice through systematic synthesis of research

Prof Philip Baker1, Dr Joseph Costello2

1 Professor of Epidemiology, School of Public Health and Social Work, Queensland University of Technology, Brisbane, 2 Research Fellow, School of Exercise and Nutrition Science, Queensland University of Technology, Brisbane

To improve and protect the health status of individuals and populations, both practitioners and policy makers require information about which strategies and interventions are effective, and which are ineffective or cause harm. Often decision makers when they seek answers are first overwhelmed by the volume of individual studies and reports. An ad hoc Google search is usually the first approach decision makers pursue. Even when decision makers identify guidelines for practice, these recommendations are usually based upon expert opinion rather than the best available evidence. For growing health problems as such physical inactivity and obesity, decision makers are at significant risk of implementing ineffective interventions.

To address these problems, systematic review methodology seeks to identify all of the relevant studies on a topic, assess their methodological quality, and then summarise the body of evidence into one report. Systematic reviews are incredibly valuable to decision makers as possessing a systematic review can eliminate the need to look for, and sort through thousands of individual studies. Systematic reviews also allow decisions makers to focus their efforts upon translation and implementation of effective strategies.

Described in this presentation is our undertaking of several systematic reviews of public health interventions as members of the global Cochrane Collaboration. Of popular interest is our Cochrane systematic review which examines whether multi-strategic ‘community wide interventions’ increase population levels of physical activity. However, this review addresses only community-wide interventions, whereas the bigger question decision makers need answered is the identification of which interventions work amongst those offered. To answer this question, our international team of Cochrane collaborators is presently undertaking an “umbrella” overview of systematic reviews of physical activity public health interventions. Through the undertaking of systematic reviews and overviews of interventions, we are informing public health decisions with translatable evidence whilst strengthens our international linkages.

Presenter Biography:

Prof Dr Philip Baker is Professor of Epidemiology, School of Public Health and Social Work, Queensland University of Technology. Prior to QUT he was Director of Epidemiology in Queensland Health leading the delivery of epidemiological services for communicable and chronic diseases across a large geographic area of Queensland. He has a PhD in Clinical Epidemiology and Health Technology Assessment from the University of Queensland and a B.Sc (Hons) from the University of Toronto. Prof Baker has extensive experience in epidemiology related to both clinical trials, public health settings and health policy. He is an author on sievel Cochrane systematic reviews, and is a journal editor for the Cochrane Public Health Group. Much of the review his work focuses on public health issues such as communitywide interventions to increase physical activity.

He is experienced in providing workforce training in evidence-informed decision making and epidemiological skills for health workforce internationally. Within the university setting Prof Baker uses active learning strategies with audience response technologies. His publications are in Aboriginal health, evidence-based practice, systematic reviews, health-technology assessment, health services research, chronic disease prevention, physical activity and public health epidemiology. Prof Baker has a passion for innovative and real-world approaches to teaching and research.
Responding to the needs of rural communities: promoting the development of rural social work in China

Dr Judith Burton, Dr Yang Hu and Prof Bob Lonne

Abstract: Rural areas of China are changing as many migrate to cities to find work. Recent years have witnessed rapid urbanization and a growing number of internal, economic migrants. According to the National Bureau of Statistics of China (2013), there are around 163 million rural migrants who temporarily work away from their homes. These residents migrate to cities, where they are offered non-agricultural jobs and better incomes. These population shifts can result in social problems such as dislocation, unemployment and poverty. This abstract speaks to two doctoral research projects - one recently completed and one in planning – that may be of interest to the emerging profession of social work in China.

The first was titled Constructions of children's needs in informal kinship care in rural China. This thesis examined the needs of children left behind with kin carers when their parents migrated for work. These children are a hidden yet growing group, with estimates that about 65 million children are affected. Dr. Hu’s study examined how caregivers perceived the needs of these children. Study participants were recruited from rural areas in Jilin province. The qualitative research analysed the lived experience of 23 kin caregivers and five school personnel in terms of how they identified and responded to the needs of children left behind. The study found that although caregivers provide children with a secure environment that builds a sense of belonging, their capacity to address emotional and educational needs is limited. Many caregivers remain hesitant to step in when children are expressing grief and loss even though they sense children’s trauma. Furthermore, caregivers’ own limited education means they are less able to help children with their studies. Since children’s needs may not be adequately met by relying on kin it is timely to consider the role that could be played by rural social workers to support these children and their caregivers.

The second study will be concerned with developing culturally appropriate models of rural social work for the Chinese context. As well as supporting children left behind, rural social work could play a significant role in post-disaster management in rural communities. Several hundred university-level programs aim to train two to three million social workers in five to 10 years (Liu, 2012). Thus it is timely that relevant and practical models of practice are developed to address the need for social services in rural China.

The authors understand and agree to the following:

• Confirm that each author listed agrees with the content of the abstract and has given permission to be listed as an author presenter or author
• Confirm the accuracy of the information and referencing within the abstract
• Permission for the Forum organisers to publish the abstract in the Forum proceedings book (paper and USB)
• Permission for the Forum organisers to publish the email address for the presenting author and authors (as listed in the abstract) in the Forum proceedings book (paper and USB)
• Understand that the abstract will be published, if accepted, as submitted and that no editing to grammar or spelling will be undertaken by the Academic Committee.

Presenter Biography:

Dr. Burton brings insights from a career in early childhood education and care to her teaching in the child and family services area. She has researched practice with children, young people and families in a diversity of service contexts including children’s contact services, foster care, homelessness, services for young people and child protection. She has been a supervisor for students researching child and family issues in a range of different countries, notably Canada, Saudi Arabia and China. Dr. Burton was a member of the (previously named) Department of Child Safety Research Advisory Group that helped establish the research agenda and protocols within the Department.

Dr Burton is the incoming Director of Academic Programs for the School of Public Health and Social Work and also coordinates degree programs in Human Services.

Provision of survivorship care for Patients with Cancer after the Completion of Treatment in the Asia-Pacific Region: An International Cancer Nurses Collaborative Study

Dr Raymond Chan, Prof Patsy Yates, Prof Alex Molasiositis

The incidence of cancer in the Asia-Pacific region is substantial, accounting for over 30% of all cases worldwide. New cancer cases in this region are projected to grow by 41% or approximately 6.5 million new cases per year over the next decade. The continuing efforts devoted to improve cancer services including prevention, early detection and screening, and treatment have resulted in a growing population of cancer survivors across the region. However, the cure or control of the condition does not necessarily guarantee a full restoration of health, with many survivors continuing to experience impaired quality of life as a result of the disease and treatment. Depending on the patient's disease and treatments, some post-treatment effects can include pulmonary, cardiovascular and renal complications, infertility, recurrent infections, impaired organ function, functional impairments, pain, fatigue, and increased risk of new primary cancers or recurrence of their primary disease. Further, these physiological effects can have a significant impact on the psychosocial experiences of cancer survivors, including depression, anxiety, fear of relapse, reduced income, sexual dysfunction, relationship issues, and limited capacity to engage in full-time employment, social activities and household duties.

However, there is limited information about the prevalence, duration and exact nature of the physical and psychosocial effects which arise during the post-treatment period, especially in the Asia Pacific region. Further, there is minimal research about existing systems and practices relating to survivorship care in this region. This paper describes a new collaborative program of research that ultimately seeks to develop and evaluate cancer survivorship interventions in the Asia Pacific region. Specifically, this paper will report on progress with the first phase of this research that involves survey of nurses in selected Asia Pacific countries to establish attitudes, confidence levels and survivorship care practices of this group of health professionals. It is expected that the information gained from this first phase will provide information to inform the next phase of work which will include development and evaluation of survivorship care that are relevant to specific social and cultural contexts in the Asia Pacific region.

Presenter Biography:

Dr Raymond Chan is a NHMRC Health Professional Research Fellow. Raymond is also the Deputy Director of Research for Cancer Care Services, leading Supportive Cancer Care research program that focuses on improving the quality of life and important health outcomes of patients with cancer and families at the Royal Brisbane and Women's Hospital. He is active in promoting evidence-based practice locally and internationally through conducting knowledge translation projects, Cochrane systematic reviews, randomised controlled trials, and other research. Raymond holds a Master of Applied Science (Research) and a Doctor of Philosophy. To date, he has attracted a total of $2.9 million (AUD) of research funds to undertake research in the area of supportive cancer care. Specifically, Raymond is a Chief Investigator on two current NHMRC project grants.
Mediation of inflammation and placenta on the relationship between maternal secondhand smoke exposure and low birth weight

Wei-Qing CHEN M.D. Ph.D. Professor
Department of Biostatistics and Epidemiology, School of Public Health, Sun Yat-Sen University

Background: The causal relationship between maternal secondhand smoke (SHS) exposure during pregnancy and low birth weight (LBW) has been affirmed, but the mechanism is still unclear. Previous studies found that SHS exposure might trigger inflammation which was also associated with low birth weight. Besides, placenta is the interface between the mother and the developing fetus and serves as the conduit through which nutrients and waste products are transferred. The hypotheses if maternal SHS exposure during pregnancy lead to LBW might through trigger inflammation and harm placenta still lack empirical evidence.

Objectives: This study aims to test the hypotheses that maternal SHS exposure during pregnancy leads to LBW through triggering inflammation and harming placenta.

Methods: One hundred and ninety-five pregnant women delivered LBW and 196 health controls delivered normal birth weight were included in this case-control based study. Information about SHS exposure during pregnancy, socio-demographic characteristics and obstetric conditions were inquired at Maternity and Child Health Care Hospitals of Shenzhen and Foshan in Guangdong, China. Maternal serum inflammatory markers of interleukin (IL)-1β, IL-6, tumor necrosis factor-α (TNF-α), C-reactive protein (CRP), monocyte chemoattractant protein-1 (MCP-1), and soluble vascular cell adhesion molecule-1 (VCAM-1) were measured by flow cytometry. Regression models were employed to examine the mediation effects and structural equation model (SEM) were performed to explore the potential pathways of inflammation and harming placenta through which SHS exposure during pregnancy lead to LBW.

Results: After controlling for maternal age, educational level, family income, pre-pregnant body mass index (BMI), infant gender and pregnant week, logistic regression analysis revealed that maternal SHS exposure during pregnancy (OR=2.14, 95% CI=1.06~4.32), placental weight less than 500g (OR=3.60, 95% CI=2.09~6.19), maternal serum TNF-α (OR=1.92, 95% CI=1.47~2.50), and IL-1β (OR=1.53, 95% CI=1.14~2.05) were associated with LBW. Moreover, SHS exposure during pregnancy was significantly associated with placental weight (being less 500g) (OR=2.30 95% CI=1.10~4.80), maternal serum TNF-α (OR=1.55, 95% CI=1.06~2.27), and maternal serum IL-1β (OR=1.72, 95% CI=1.11~2.66). Mediation analysis found that maternal serum TNF-α, IL-1β and placental weight (being less 500g) partially mediated the association between SHS and LBW at the extent of 50.80%, 44.09%, and 23.06% respectively. Further structural modeling achieved a well-fitted model (GFI=0.981, AGFI=0.947, CFI=0.988, IFI=0.989, and RMSEA=0.029) of our data with plausible mechanism. It indicated that SHS might induce mutant levels of maternal TNF-α, IL-1β, IL-6, VCAM-1, and CRP and further decrease placental weight and ultimately increase the risk of LBW.

Conclusion: Secondhand smoke significantly increased the risk of LBW and this relationship was probably mediated by both inflammation and placenta.

Presenter Biography:
Professor Chen graduated from School of Public Health, Tongji Medical University and got the bachelor degree in 1984; studied in Anhui Medical University for the master degree from 1987 to 1990; and studied in the Chinese University of Hong Kong for Philosophy Doctor from 1998 to 2011.
He worked as an assistant lecturer in the Department of Preventive Medicine of Xingxiang Medical College from 1984 to 1987. After having graduated from Anhui Medical University, he worked as an assistant lecturer from 1990 to 1992 and as a lecturer from 1993 to 1997 in the Department of Epidemiology, Sun Yat-sen University of Medical Science. He was ever hired as a research associate in the Department of Community and Family Medicine in the Chinese University of Hong Kong. He worked as an associate professor from 2002 to 2004, and as a professor from 2005 to present in the Department of Statistics and Epidemiology in Sun Yat-sen University.

Associations of perception of safety climate, occupational safety attitude and behaviors with unintentional injuries

Wei-Qing CHEN M.D. Ph.D. Professor
Department of Biostatistics and Epidemiology, School of Public Health, Sun Yat-Sen University

Objective: To examine associations of perception of safety climate at workplace, occupational safety attitude and behaviors with occupational unintentional injury among manufacturing workers.

Method: A cross-sectional study was performed and a self-administered questionnaire was used to inquire socio-demographic characteristics, perceived safety climate, occupational safety attitudes, occupational safety behaviors and occupational unintentional injuries among 10595 manufacturing workers selected from 46 enterprises in Guangdong. Structural equation modeling was applied to assess relationship of perception of safety climate at workplace, occupational safety attitude, and occupational safety behaviors with occupational unintentional injury.

Results: Among 24 paths supposed in structural equation model, 20 ones were significant in statistics except for association of “attitude toward occupational safety” with healthy behaviors, “attitude toward managers’ support” with work posture and individual defense as well as healthy behaviors with occupational unintentional injuries being not statistically significant. Further disassembling the paths for the factors affecting occupational unintentional injuries, it was found that the perceived safety climate might impact the occupational unintentional injuries via both the attitude toward occupational safety and occupational safety behaviors.

Conclusions: Workers’ perception of safety climate had indirect influence on occupational unintentional injuries through occupational safety attitudes and occupational safety behaviors.

Presenter Biography:
Professor Chen graduated from School of Public Health, Tongji Medical University and got the bachelor degree in 1984; studied in Anhui Medical University for the master degree from 1987 to 1990; and studied in the Chinese University of Hong Kong for Philosophy Doctor from 1998 to 2011. He worked as an assistant lecturer in the Department of Preventive Medicine of Xingxiang Medical College from 1984 to 1987. After having graduated from Anhui Medical University, he worked as an assistant lecturer from 1990 to 1992 and as a lecturer from 1993 to 1997 in the Department of Epidemiology, Sun Yat-sen University of Medical Science. He was ever hired as a research associate in the Department of Community and Family Medicine in the Chinese University of Hong Kong. He worked as an associate professor from 2002 to 2004 and as a professor from 2005 to present in the Department of Statistics and Epidemiology in Sun Yat-sen University.
Parents' self-reported physical maltreatment of their children in a city in north-eastern China

Jingqi Chen, Jingyi Li, Yanan Feng, Xiaoxia Zhao, Wenjing Zhang

Institute of Child & Adolescent Health, Peking University Health Science Center

Objective: To investigate the prevalence of child physical maltreatment (CPM) by parents in an urban area in northeast China and explore possible influencing factors.

Methods: In two primary schools of a city of northeast China, 1105 pupils’ parents from grade 1 to 6 participated in the study and returned eligible questionnaires. The data were collected by anonymous, self-administered questionnaires. The CPM scale included 8 items: shook, pushed or shoved the child; pinch, twist, or grab the child; hit child's hand, back, arm or leg with hand; hit child's buttocks with hand; hit child's buttocks with an object; hit child's face or head with hand; kicked the child with a foot or hit with a fist; hit elsewhere (not buttocks) with an object. Cases of CPM were defined as those who answered positively to one or more of the 8 questions regarding behavior towards their children during the past 3 months. Cronbach alpha of the 8-item scale was 0.83. Children's personal factors (i.e., gender, only child or not, their school performance), parents' personal factors (i.e., their own childhood maltreatment experiences, parental views about corporal punishment), family environment factors (i.e., economic conditions, family's support to parents) and friends/colleagues' support to parents were also included in the questionnaire.

Results: Of 1105 parents, 53.0% reported that they had minor CPM (51%, measured by items 1-4) or/and severe CPM (19.3%, measured by items 5-8) toward their children. Compared with girls, boys were more physically maltreated by their parents (47.7% vs. 58.1%). Logistic regression analysis indicated that the following factors increased the risk of CPM: male gender of the child; child was in lower grade; the child had poor performance at school; parents had childhood maltreatment experiences; parents had supportive attitudes towards corporal punishment.

Conclusion: Physical maltreatment of children by their parents was common in this study, and there was a significant association between CPM and parents' supportive attitudes towards corporal punishment. The findings highlight the need, to develop parenting programs to support parents and prevent what appears to be a continuing cycle of maltreatment.

* The evaluation project has been supported by the Children and Violence Evaluation Challenge fund, a joint initiative funded by Bernard van Leer Foundation, Oak Foundation and UBS Optimus Foundation and hosted by NEF. The sole responsibility for the content lies with the author and the content may not necessarily reflect the positions of NEF, Children and Violence Evaluation Challenge Fund or the sponsoring Foundations.

Presenter Biography:
Jingqi Chen, PhD, Professor, Institute of Child and Adolescent Health Peking University Health Science Centre. At present, her main research is prevention of child maltreatment, and school health education.

Professional analysis of medical staff in public hospitals in China

Shaoxian CHEN MD PhD Professor

Department of health policy and management, School of Public Health, Sun Yat-sen University

Background and purpose: Nowadays, the work status of medical staff is disquieting, and such a situation was very common in the whole world. China is a developing country. In recent years, along with the increasing reform and opening up, the development of the whole country is accelerating. Every walk of life has achieved huge accomplishments, and also has new kinds of problems. The medical profession is a special case. Medical disputes happened frequently, and the relationship between medical staff and patients is getting worse. The aim of this study was to make a clear recognition of medical staff's view on hospital development, on the medical profession, and on the doctor/nurse-patient relationship.

Methods: With the simple sampling method, first, 5 district-level cities were taken out from PRD and non-PRD respectively; secondly, we selected 4 to 5 public hospitals from each city, including tertiary and secondly hospitals; thirdly, we selected 30 to 40 medical staff from each on the hospitals selected to fill in specially designed questionnaires. We used SPSS 11.0 software to establish a database, to import data, and to make statistic analysis.

Results: 69.4% of medical staff revealed that their working hospitals could realize continuous development; about 40% revealed that the government and civil society were not supportive of the development of their working hospitals; 30.4% were not proud of their medical profession; 57.0% expressed concern over the big gap between current salary and expected salary (a gap of about 50%); 66.2% of both doctors and nurses revealed the relationship between them and the patients was not harmonious; and 75.7% of the doctors and nurses revealed they would adopt some precautions to evade medical disputes.

Conclusions: The medical staff in public hospitals has certain recommendations toward the development of their working hospitals and the job pride. The job satisfaction rate has fallen and medical staffs were dissatisfied with their current salaries. A certain proportion of doctors and nurses had little regard for their relationship between them and their patients; some medical staffs were confused and inconsistent with their standard of medical profession.

Presenter Biography:
Dr Shaoxian Chen got his MD from School of Public Health, Sun Yat-sen University in 1982 and PhD from South China Medical University in 2013. He has 32 years of teaching and research experience in social medicine, primary health care, health policy and management. In the past 10 years, he got more than 50 grants with about 10 million yuan foundation. His publication includes 6 books and 80 papers.

Dr Chen is the vice-chairman of Primary Health Care Branch of Chinese Preventive Medicine Association. He is Chinese Medical Association General Medicine Branch member and Chairman of Family Medicine Association of Guangdong Province Medical Society, as well as the chair of Guangdong health policy and management. He is the expert on Guangdong Provincial community health service, as well as the expert head of new rural cooperative medical scheme of Guangdong province. His research team is the outstanding research team in Sun Yat-sen University and won the reward from the university in 2012.
Adapting an early childhood education professional development program for Aboriginal & Torres Strait Islander and Culturally and Linguistically Diverse Communities.

Phoebe Cleland, Helen Vidgen, Danielle Gallegos

Nutritional support and functional capacity in chronic obstructive pulmonary disease (COPD): a systematic review and meta-analysis.

P.F. COLLINS1, M. ELIA2 and R.J. STRATTON2.

1School of Exercise and Nutrition Sciences, Faculty of Health, Queensland University of Technology, Brisbane, Australia. 2Institute of Human Nutrition, University of Southampton, Southampton, UK.

Rationale: Controversies exist about the value of using nutritional support to improve functional outcomes in COPD with a Cochrane review reporting no evidence of benefit (Ferreira et al., 2005). This updated review aimed to re-examine the evidence base. Methods: A systematic review identified 13 randomised controlled trials (n = 419) of nutritional support (dietary advice (n = 1), oral nutritional supplements (n = 11) or enteral tube feeding (n = 1)) versus control in COPD. Respiratory muscle strength (Pl max and PE max), handgrip strength (HGS), walking distance and quality of life (QoL) were investigated (Comprehensive Meta-analysis v2). In contrast to the Cochrane review, which examined only between group differences, this review examined the changes induced by the intervention. Results: Compared to the control group, those receiving nutritional support showed a significantly greater increase in PE max (15.2 SE 4.88 cm H2O, p=0.002), a non-significant increase in Pl max (0.36 SE 0.34 cm H2O, p=0.143) and a significant increase in HGS (0.9 SE 0.366 kg, p=0.014 fixed effect model; 1.3 SE 0.69 kg, p=0.05 random effects model). Walking distance was reported in five trials, four of which favoured the intervention group. Two of these were meta-analyzable (p=0.59) with only one favouring the intervention group. Two studies examined QoL (non meta-analyzable) each reporting clinically and statistically significant improvements favouring nutritional support (p=0.005 to p=0.05). Conclusion: Unlike the Cochrane review, this systematic review found that nutritional support in COPD results in improved respiratory and peripheral muscle strength and quality of life.


Presenter Biography:

Dr Peter Collins completed his PhD at the Institute of Human Nutrition, Faculty of Medicine, at the University of Southampton. His research investigated the effectiveness of nutritional support in treating disease-related malnutrition in chronic obstructive pulmonary disease (COPD) and his research interests lie mainly in the areas of clinical nutrition, nutrition support and respiratory disease. Dr Collins has presented his work at national and international conferences. He is on the editorial board of the Journal of Human Nutrition and Dietetics and reviews for several journals. At QUT Dr Collins is a senior lecturer of Nutrition and Dietetics within the School of Exercise and Nutrition Sciences and has research projects across hospitals within Brisbane as well as in Ho Chi Minh City, Vietnam.
Levels of social trust two years after the 2011 Queensland floods: The experiences of men from refugee backgrounds

Ignacio Correa-Velez1, Celia McMichael1, Augustine Conteh1
1School of Public Health and Social Work, Queensland University of Technology, * School of Social Sciences, La Trobe University

This paper examines the relationship between flood exposure and levels of social trust among a cohort of adult men from refugee backgrounds who were affected by the 2011 floods in Queensland, Australia.

A quantitative questionnaire was administered to 141 men from refugee backgrounds almost two years after the floods. The survey was administered in person by trained peer interviewers, and included a number of standardised instruments assessing: respondents’ socio-demographic characteristics; levels of social trust towards and from neighbours, the police, the wider Australian community, and the media; and exposure to and impact of the floods. Multiple logistic regression analyses were used to assess the relationship between flood exposure and social trust adjusting for pre-disaster levels of trust and other potentially confounding variables.

Participants with higher levels of flood exposure were significantly more likely to report greater levels of trust both towards and from their neighbours, the wider Australian community, and the media, and they were also more likely to believe that most people can be trusted.

Our paper highlights the important place of social trust and social capital for refugee communities in a post-disaster setting. Disaster responses that support social capital among marginalised populations are critical to increasing community resilience and supporting recovery.

Presenter Biography:
Dr Correa-Velez has a PhD in Population Health (University of Queensland) and a background in General Practice, Family Medicine and Community Health. His research interests include refugee/migrant health, social determinants of health, mental health, human rights, and the impact of environmental disasters on marginalised communities.

Between 2004 and 2011, Ignacio was Research Fellow and Deputy Director of the La Trobe Refugee Research Centre (La Trobe University, Melbourne). In 2006 he was awarded an Australian National Health and Medical Research Council (NHMRC) Postdoctoral Public Health Fellowship (2006-10). He joined QUT in January 2012 and is currently Senior Lecturer and Public Health Discipline Coordinator in the School of Public Health and Social Work.

Dr Correa-Velez is the chief investigator of the NHMRC/NCCARF funded SettleMEN project, which has followed, since 2008, a group of 233 recently-arrived men from refugee backgrounds living in urban and regional Southeast Queensland with the aim of documenting their health and settlement experiences, and the impact of the 2011 Queensland floods. Other research activities include a VicHealth/ARC funded longitudinal mixed-methods study of young people with refugee backgrounds who have been living in Australia for around ten years, examining settlement and social integration outcomes.

Engaging children and young people in creating resilient and healthy urban spaces

Dr Mike Dee
School of Public Health and Social Work

Urban public space in Australia and internationally, can be critically examined from a number of multidisciplinary standpoints, including human geography, urban design, planning, sociology, and public health. Viewing urban public space from a range of perspectives encourages different vantage points to emerge and questions around health, wellbeing and public space are increasingly topical and important in the broadest of terms, with public space being a key arena for physical activity, mental health, commercial, cultural and community life and the possibility of social inclusion.

However, in the name of urban regeneration, programs of securitisation, ‘gentrification’ ‘creative’ and ‘smart’ city initiatives refashion public space as sites of selective inclusion and exclusion (Watson 2005; Gabrys 2014). In this context of monitoring and control procedures, in particular, children and young people’s use of space in parks, neighbourhoods, shopping malls and streets, is often viewed as a threat to social order, requiring various forms of remedial action, such as being ‘designed out’ of public space (Johnson 2014). Rarely are children and young people actively and respectfully brought into planning and governance processes and consequently many urban public spaces are essentially adult places, where control and ongoing surveillance are the key concerns (Freeman 2011, Dee 2013).

There is also a political economy of public space discernable in cities like Brisbane, where ‘flagship’ infrastructure such as road tunnels take pride of place, while more humbly appointed pedestrian footpaths are often narrow, in a poor state of repair and a potential barrier to good health (Atkinson and Easthope 2009). The recent development of bikeways in Brisbane is a case in point, presenting both challenges and opportunities in being a valuable new form of public space heavily used by ‘commuter cyclists’ by day, but poorly lit and conceived, for a range of users at other times (Wyeth 2014).

This paper concentrates on questions of social citizenship rights and discourses of health and wellbeing and suggests that cities, places and spaces and those who seek to use them, can be resilient in maintaining and extending democratic freedoms, calling surveillance, planning and governance systems to account (Smith 2014). The active inclusion of children and young people better informs the implementation of public policy around the design, build and governance of public space and also understandings of urban citizenship, leading to healthier, more inclusive, public space for all (Jacobs 1965).

Presenter Biography:
Mike was a full time youth worker in Kings Cross and Earls Court, London, in 1976 and has more than twenty years direct experience working with children, young people, families and communities. He has taught previously in youthwork, community education and development, social policy and human services at Edith Cowan University, Western Australia, De Montfort University, Leicester, U.K, The Open University, U.K. and Griffith University, Logan. At QUT Mike completed his PhD in an area of research in progress since 1995 on the topic of Young People, Public Space and Citizenship (in 2008) and currently teaches across the Social Work and Human Services discipline in Community and Place Based Practice, Social Policy, Political Economy and also Practice Theories. His research interests include the study of citizenship, the social determinants of health, CCTV and other forms of surveillance, urban public space and children and young people’s rights. See also items on QUT EPrints: EPrints:http://eprints.qut.edu.au/view/person/Dee,_Mike.html
The management of medicines
Sheila A Doggrell1 PhD DSc, and Vincent Chan2, BPharm PhD
1 School of Biomedical Sciences, 2 School of Clinical Sciences, Faculty of Health, Queensland University of Technology

Medicines do not work in people who do not take them. The World Health Organisation estimates that 50% of subjects suffering from chronic diseases do not take their medicine.

We undertake pilot research studies into the management of medicines (i) by the older-aged and (ii) by subjects with diabetes.

To date, we have been establishing baseline information about the management of medicines in these 2 groups. The long-term aim is to determine which interventions are successful at improving adherence to medicines in these groups.

(i) Among the older-aged, ratified estimates of their nonadherence vary from 40-75%. The management of medicines by the older-aged, especially their adherence to medicines is important, as nonadherence is a common cause of hospital admissions and progression of disease. We have shown that 50% of the older-aged living in leasehold and rental retirement village are nonadherent to medicines and have a poor understanding of their medicines and illness. This problem does not exist in freehold retirement villages (Doggrell & Kairuz, 2012; Doggrell, 2013). Thus, we need to target those in rental and leasehold retirement villages to help them in their management of medicines. Presently we are exploring two interventions to improve the management of medicines by the older-aged living in rental and leasehold retirement villages. Both of these interventions involve an individualized ‘Action Plan’ to help the participants in their management of medicines. In one study, we are returning after 6 months to determine how effective the ‘Action Plan’ has been. In the other study, we are visiting or telephoning the participants every 2 weeks to reinforce the ‘Action Plan’, and assessing this after 6 months.

(ii) In subjects with diabetes, adherence to medicines is important, as nonadherence is associated with an increased risk of morbidity and mortality. Among subjects with type 2 diabetes, the adherence range is 36-93%, and nonadherence to medicines is associated with increased risk of comorbidity severity, emergency room visits, and hospitalization, increased total annual health care costs, and increased risk for all-cause mortality. Subjects with high HbA1c levels are often considered to have low adherence to medicines. The aim of our study was to explore the management of medicines, including adherence, in subjects with poorly managed diabetes, as indicated by HbA1c values ≥7.2% in a large general practice in a low socioeconomic area. Our study showed that most of the subjects with high HbA1c levels in general practice have good adherence to medicines, and the reason for their high HbA1c levels may be that they are under-medicated. Thus, it may be more appropriate to target the general practitioner, than the subjects with type 2 diabetes, to improve the management of medicines in low socioeconomic areas.

DOGGRELL SA, KAIRUZ T (2012) Medicine use by the older-aged living independently in different types of retirement villages. Journal of Pharmacy Practice and Research 42(3); 208-212.


Presenter Biography:
Dr Sheila Doggrell has taught pharmacology to medical, biomedical/science and allied health students at a number of Universities in New Zealand and Australia. Presently, Sheila is a senior lecturer in pharmacology at QUT, and teaches pharmacology to allied health students (nursing, paramedic, optometry, podiatry). Sheila has recently received a Teaching Excellence award from the Education Section of the International Congress of Pharmacology for her teaching and education research. For 20 years, Sheila undertook experimental research in the area of Cardiovascular Pharmacology, and published over a 100 refereed papers. For this, Sheila was awarded a DSc from the University of Southampton, UK. Sheila's present research interest is the "Management of Medicines". This research started as collaboration with Dr Therese Kairuz, Senior Lecturer in Pharmacy, UQ, with studies of the management of medicines by the older-aged living in retirement villages. Subsequently, Dr Vincent Chan joined QUT and the research group. Vincent and Sheila have started research of the management of medicines by subjects with poorly controlled type 2 diabetes. Sheila also undertakes biomedical writing, ranging from journalism to detailed reviews, and has published over 250 articles/reviews.

Air Pollution associated hypertension and increased blood pressure may be reduced by breastfeeding in Chinese children
Guanghui DONG M.D. Ph.D. Professor
Department of Preventive Medicine, School of Public Health, Sun-Yat-sen University

Background: High blood pressure (BP) and hypertension are the leading risk factors for death worldwide. Ambient air pollution is a risk factor for hypertension among adults. Little is known about the association between air pollution and hypertension among children, and whether breastfeeding modified this association.

Methods: 9354 Chinese children, ages 5–17 years old, from 24 elementary schools and 24 middle schools in the Seven Northeastern Cities during 2012–2013 were evaluated. The children's weight, height, and BP were measured using standard methods. Four-year average concentrations of particles with an aerodynamic diameter ≤10 µm (PM10), sulfur dioxide (SO2), nitrogen dioxides (NO2), ozone (O3), and carbon monoxide (CO) were calculated from monitoring stations in 24 study districts. Two-level logistic regression analysis was used to examine the effects of exposure, controlling for covariates.

Results: There was a strong association between hypertension and all pollutants examined. The odds ratios for hypertension ranged from 1.12 per 46.3 µg/m3 increase for O3 (95% confidence interval [CI], 1.10-1.13) to 1.68 per 30.6 µg/m3 increase for PM10 (95% CI, 1.53-1.86). The estimated increases in mean diastolic BP ranged from 0.58 mmHg per 46.3 µg/m3 increase for O3 (95% CI, 0.52-0.63 mmHg) to 2.89 mmHg per 563.4 µg/m3 increase for CO (95% CI; 2.53-3.24 mmHg). The increase in systolic BP ranged from 0.50 mmHg per 46.3 µg/m3 increase for O3 (95% CI; 0.43-0.57 mmHg) to 2.10 mmHg per 30.6 µg/m3 increase for PM10 (95% CI; 1.73-2.47 mmHg). When stratified by gender, these relationships were observed both in males and females. Compared with children who had been breastfed, non-breastfed children exhibited consistently stronger effects of air pollution on both hypertension and arterial BP.

Conclusion: Long-term exposure to PM10, SO2, NO2, O3, and CO is associated with increased arterial BP and hypertension among the Chinese children. Breastfeeding may reduce the risk elevated BP associated with exposure to pollutants.

Presenter Biography:
Guang-Hui Dong, MD, PhD is a Professor of environmental epidemiology. He has years of experience working as an environmental epidemiologist in China and his research areas of focus include adults and child health, environmental health, exposure assessment, indoor and outdoor air pollution.

Most notably he was principal investigator on the study "Health Effects of Long-term Air Pollution on Lung Function, and Respiratory Health in Children in Seven Chinese Cities" sponsored by the China Environmental Protection Agency from 2007 to 2008; and the study "Long-term Air Pollution and Cardiovascular Diseases in Adults in Three Chinese Cities" in 2009. Currently, Dr. Dong and his colleagues are evaluating whether ambient air pollutants at levels typically found in China are related to increased rates of low birth weight, blood pressure, sleep disorder and mental health (ADHD) in children from Northeast of China. The proposed research recruits approximately 70,000 children aged 3 to 16 years old.
Evidence supporting the expansion of Child Protection Systems in China: Synthesis of maltreatment data and estimation of the economic burden

Michael P Dunne1, Prof Xiangming Fang1, Prof Chen Jingqi1, Prof David Finkelhor1, Ms Kai Ji1, Debii Fry1, Dr Patricia Lannen1

1 QUT School of Public Health & Social Work, 1 China Agricultural University, 1 Peking University Health Sciences Centre, 1 Crimes Against Children Research centre, University of New Hampshire, 1 Child Protection Research Unit, University of Edinburgh, 1 UBS Optimus Foundation

Objective: Child maltreatment has been found to impair the health and wellbeing of children and adults in every country in which it has been measured. This paper reports two meta-analyses of all published data in Chinese and English-language journals on the prevalence of Child Sexual Abuse (CSA) and other forms of child maltreatment, and examines associations with mental disorders and other health-related consequences. The economic burden of child maltreatment in China is also estimated.

Methods: Systematic reviews (i, Finkelhor and Dunne, Child Abuse and Neglect, 2013, and Fang et al, 2014, under review) were conducted. The first meta-analysis included 27 papers reporting CSA prevalence. In the second meta-analysis, the focus was on CSA, physical abuse, emotional abuse and neglect; 75 papers met the criteria for inclusion. PAFs were calculated and DALYs lost from mental disorder and health risk behaviors attributable to child maltreatment were estimated using the GBD 2010 data for Mainland China.

Findings: Meta-analysis 1: Composite estimates of prevalence varied by type of sexual acts. For both boys and girls, unwanted non-contact experiences were common, and experiences that involved sexual contact but not penetration were experienced by up to 9%. Penetrative CSA was quite rare, at 1% of females and 0.5% for males.

Meta-analysis 2: The composite prevalence estimates were 26.6% for physical abuse, 19.6% for emotional abuse, 8.7% for contact sexual abuse, and 26.0% for neglect. As an example, Physical abuse was estimated to contribute to 12.2%, 17.0%, 20.7%, 18.8%, and 18.3% of the DALYs for depression, anxiety, problem drinking, and illicit drug use and self-harm respectively. The estimated economic value (in 2010 US$) lost to maltreatment will be reported during this talk. The scale of the estimates is not dissimilar to the costs of maltreatment in western countries.

Conclusion: Child maltreatment is a common experience and the resultant economic loss may be substantial. Comprehensive study of multiple types of maltreatment and a wider range of putative health outcomes is needed, as are methodological solutions to the problem of cost over-estimation due to co-occurrence of types of child abuse and neglect.

Presenter Biography:
Michael Dunne BA(Hons), PhD is Professor of Social Epidemiology and Director of International Engagement in the School of Public Health & Social Work at QUT. He has published more than 160 papers as author or co-author, He is a collaborator and occasional consultant with international agencies (e.g. UNICEF, WHO). He has supervised 18 doctoral students as principal supervisor and 15 as associate supervisor. Michael has extensive professional links in East Asian countries and is co-Director of the Centre for Community Health Research at Hue College of Medicine and Pharmacy in Vietnam. His main research contribution in the past 10 years is in the field of child protection. He has contributed to the first community-based studies of child maltreatment in China (2002-6), Vietnam (2006-9) and Malaysia (2006-10), and led the first epidemiological study of child sexual abuse experiences of the general population of Australia (published in 2003). In the past five years, Michael’s work has extended to efforts to develop research capacity in this field in several countries and advising UNICEF, WHO and philanthropic groups regarding the evaluation of community-based programs for child protection and youth mental health promotion. Over the past 15 years, Michael has also published with researchers at Washington University in St Louis, Northwestern University, University of North Carolina and University of New Hampshire in the USA.

Effect of a ‘Hospital in the Nursing Home’ program on reducing emergency department utilization from nursing homes in Queensland, Australia

Xiang-Yu Hou1, Lijun Fan1, Jingzhou Zhao2, Jiandong Sun1, Bill Lukin3*

1 School of Public Health and Social Work, Queensland University of Technology, Brisbane, Australia, 2 Bureau of Investment Promotion, Wuwei City, Gansu Province, P. R. China, 3 Department of Emergency Medicine, Royal Brisbane and Women’s Hospital, Brisbane, Australia

Introduction: Overcrowding in hospital Emergency Departments (EDs) has been reported in many countries, which has threatened ED’s role in proactively and timely providing the acute care, and is against the interests of all patients and healthcare professionals. Among many contributors to the increasing rate of ED utilization, the elderly population, especially those from nursing homes (NHs) where medical support is limited, is a significant one. Therefore, some hospitals in Queensland have initiated a ‘Hospital in the Nursing Home’ (HiNH) program since 2003. Objective of this study, thus, is to assess the effect of this program on the ED presentations from residents in NHs.

Methods: This study applied a quasi-experimental design and was undertaken in two hospitals in Queensland: the Royal Brisbane and Women’s Hospital (RBWH, with the HiNH program) and the Logan Hospital (LH, without the HiNH program). One-year ED presentation data of these two hospitals (March 2011-February 2012) were collected from the Emergency Department Information System (EDIS). The two outcome variables compared between the two hospitals were the number of ED presentations per 1,000 NH beds and the average length of stay at the ED. Log-linear model was used for examining the difference in ED presentation rate between the intervention and control hospitals. Generalized linear model with gamma distribution and log links was used for investigating the impact of the program on ED length of stay, after controlling for age, gender, triage category, season, day and time of arrival.

Results: During this one-year period, the total number of ED presentations from nursing home residents in RBWH was significantly fewer than that in LH (531 vs. 1005 ED presentations per 1,000 NH beds, p<0.0001). The average length of stay for NH residents presenting to RBWH was shortened by 30.58% (95% CI, 26.80% to 34.23%, p<0.0001) when compared with that for those presenting to LH, after controlling for potential confounders.

Conclusion: The hospital with the implementation of ‘Hospital in the Nursing Home’ program has fewer ED presentations and shortened ED length of stay from residents in the nursing homes in their catchment areas. This HiNH program could be effective in reducing the burden on emergency departments among NH residents.

Presenter Biography:
Miss Lijun (Keira) FAN is currently a master by research student at the School of Public Health and Social Work, Queensland University of Technology. She has previously graduated with a Bachelor in Biomedical English from Peking University Health Science Center (2008-2013) and a Bachelor in Economics from the China Center for Economic Research, Peking University (2009-2013). Her research interests include health policy and program evaluation, emergency care services, and health economics.
Disaster management is rapidly becoming an area of increased community and professional interest as communities seek to professionalise the role of disaster manager and to place it on a sounder intellectual footing. However there is no international standards in regard to advanced education in disaster management and most programs of education particularly at postgraduate level have suffered from small numbers which has limited their viability.

The Queensland University of Technology has for several years delivered a four unit postgraduate program in disaster management for health and has recently gained approval for the provision of a similar program for the Queensland Government.

There would be much benefit to be derived form a collaborative approach to disaster management in which a consortium of universities collaborate to standardise curriculum, to share educational materials and to enable cross crediting of graduates.

This presentation outlines a proposal for forge collaboration for disaster management education under the auspices of the Australia-China Centre for Public Health and to develop a common curriculum.

**Presenter Biography:**

Professor FitzGerald graduated from the Medical School of the University of Queensland in 1976. He spent ten years as Director of the Emergency Department at Ipswich Hospital and then 13 years as Medical Director then Commissioner of the Queensland Ambulance Service. In 2003, he was appointed Chief Health Officer for Queensland prior to taking up his current position as Professor of Public Health at QUT in 2006. He was one of the founders of the Australasian College for Emergency Medicine and served as national Secretary of the College for four years and was Editor in Chief of the Journal Emergency Medicine.

Professor FitzGerald holds specialist medical qualifications in Emergency Medicine and Medical Administration and was awarded a Doctor of Medicine degree from the University of Queensland in 1990 for his research into Emergency Department Triage which formed the basis of the Australasian Triage Scale now in use at all EDs throughout Australasia.

Professor FitzGerald leads educational and research programs in health management including Emergency and Disaster Health management. He leads the Health Management Discipline at QUT, is course coordinator for the Master of Health Management program and Director of the Centre for Emergency and Disaster Management.

His research interests lie in the development and evaluation of health care systems and in particular Emergency Medical Systems. He is currently a Chief Investigator in a number of NHMRC and ARC projects, has over 50 publications in peer reviewed journals in the last five years and over 15 current higher degree research students under his supervision.

Professor FitzGerald is actively engaged in national and international professional activities. He has been an invited keynote speaker at a number of forums, a member of the Editorial Board of Emergency Medicine Australasia, The Emergency medicine Journal and a peer reviewer for numerous national and international journals. He is currently a member of the NHMRC Academy.

**The unequal distribution of road trauma in China: Understanding risk factors to improve public health**

Dr Judy Fleiter, Professor Barry Watson, Dr Alexia Lennon, Dr Mark King

The World Health Organization identifies road trauma as a major public health issue in every country; most notably among low-to-middle income countries. More than 90% of all road fatalities occur in these countries, although they have only 48% of all registered vehicles [5]. Unprecedented focus has been placed on reducing the global road trauma burden through the United Nations Decade of Action for Road Safety (2011-2020).

China is rapidly transitioning from a nation of bicycle riders and pedestrians to one where car ownership and use is increasing. This transition presents important public health, mobility, and safety challenges. Rapid motorisation has resulted in an increased road trauma burden, shouldered disproportionately among the population. Vulnerable road users (bicyclists, pedestrians, and motorcyclists) are of particular concern, representing 70% of all road-related fatalities [1]. Furthermore, those at greatest risk of sustaining a crash-related disability are: male, older, less educated, and earning a lower income [2] and residing in urban areas [3], with higher fatality rates in north-western poorer provinces [3].

Speeding is a key factor in road crashes in China [1, 4] and is one of two risk factors targeted in the Bloomberg Philanthropies-funded Global Road Safety Program operating in two Chinese cities over five year [5] to which the first author has provided expert advice. However, little evidence exists to help understand the factors underpinning speeding behaviour. Previous research conducted by the authors in Beijing and Hangzhou explored personal, social, and legal factors relating to speeding to assist in better understanding the motivations for non-compliance with speed limits. Qualitative and quantitative research findings indicated that speeding is relatively common, including self-reported travel speeds of greater than 30 km/hour above posted speed limits [6], and that the road safety laws and enforcement practices may, in some circumstances, contribute to this [7]. Normative factors were also evident; the role of friends, family members and driving instructors were influential. Additionally, using social networks to attempt to avoid detection and penalty was reported, thereby potentially reinforcing community perceptions that speeding is acceptable [8, 9].

The authors established strong collaborative links with the Chinese Academy of Sciences and Zhejiang Police College to conduct this research. The first author has worked in both institutions for extended time periods and recognises that research must include an understanding of culturally-relevant issues if road safety is to improve in China. Future collaborations to assist in enhancing our understanding of such issues are welcomed.

**Presenter Biography:**

Dr Fleiter has studied and worked in road safety since 2001. She holds a prestigious Postdoctoral Research Fellowship, funded by Australia's National Health and Medical Research Council Australia-China Exchange Fellowship program. This Fellowship allows Dr Fleiter to conduct road safety research in Australia and China into high risk road user behaviours, focussing on speed management and related road safety issues. Dr Fleiter was based at Zhejiang Police College's Traffic Management Research Institute, Hangzhou (2011-2013) and is now based in Brisbane.

In 2007/8 she was based at the Institute of Psychology, Chinese Academy of Sciences (Beijing) for 5 months, collaborating with the China Automobile Association to collect data for her PhD research that examined factors influencing driving speeds in Australia and China.

Dr Fleiter consults to the World Health Organization's China Office for the Bloomberg Philanthropies Global Road Safety Program. In China, this project focuses on managing two risk; speeding and drink driving; in Suzhou and Dalian. She has assisted with reviewing Chinese speeding-related legislation, provided expertise for the project's social marketing campaigns and research on electronic bikes (ebikes) and a data linkage project in Zhejiang Province (traffic crash data and hospital injury data). She currently supervises a PhD candidate who is investigating drink driving in China and has previously supervised a Masters candidate examining the role of fatalistic beliefs in risky road use in Pakistan.
Can a text message a week improve breastfeeding duration?
Danielle Gallegos, Rebekah Russell-Bennett, Josephine Previte, Joy Parkinson
Queensland University of Technology

Breastfeeding is the first line of defence in protecting the health of infants. Appropriate early infant feeding has been shown to decrease the morbidity and mortality from infectious diseases. The consumption of breastmilk has also been shown to reduce childhood obesity by approximately 10% with impacts on the development of non-communicable diseases into adulthood. Breastfeeding duration in Australia has not improved for at least two decades with only 15% of infants exclusively breastfed at six months of age.

Research has identified that key determinants for breastfeeding practice are: intention to breastfeed during the antenatal period; maternal self-efficacy; social support from peers, professionals and family; and environments that actively encourage breastfeeding. Support in Australia is generally provided by a range of health and non-government associations in a variety of forms with limited success especially among mothers who are more difficult to engage. Mobile phones, due to almost universal penetration, are increasingly attractive as modes of delivery of health-based interventions. This paper explores the use of a text messaging service MumBubConnect as a cost effective means through which support can be provided.

Women were recruited into an intervention group (n=120) where they received one automated text message a week for eight weeks. As this was a social marketing campaign a comparison group (n=114) was recruited 20 months later to allow for all media and recognition to dissipate. Data collection included online self-reported surveys at baseline and at week nine, measuring breastfeeding practices, coping, emotions, accountability and self-efficacy. Process evaluation on the acceptability of the intervention was also collected.

Response rates were 95% and 75% for the intervention and comparison groups respectively. MumBubConnect had a positive impact on breastfeeding behaviours with women receiving the intervention more likely to continue with exclusive breastfeeding; 6% of women stopped exclusively breastfeeding in the intervention group versus 14% in the comparison group (p<0.001). Women receiving the text messages were more likely to demonstrate active coping strategies and were less likely to demonstrate emotions focussed coping over the duration of the intervention and with the comparison group (p<0.001).

A fully automated text messaging service appears to be effective in improving exclusive breastfeeding duration. The service provides a well-accepted, proximal, personalised support service that empowers women to actively resolve breastfeeding issues. The mode of delivery has potential to provide universal coverage for large populations and more difficult to reach mothers.

Presenter Biography:
Danielle Gallegos is a social nutritionist and Associate Professor at Queensland University of Technology where she is the discipline leader for nutrition and dietetics, is involved in teaching public and community nutrition and in undertaking research in areas of social justice. Danielle has over fifteen years of experience as a practicing public health nutritionist. Her areas of research interest include early childhood feeding, food literacy and food security. Danielle has been working with colleagues in Vietnam for the last six years in the development of curriculum for public health nutrition and dietetics and in the establishment of dietetics as a profession. Danielle is an elected director of the Dietitians Association of Australia and an Advanced Accredited Practicing Dietitian-Nutritionist.

Assessing the effects of extreme temperatures on cause-specific cardiovascular diseases in China: a multi-city study
Yuming Guo\textsuperscript{1}, Yanshen Zhang\textsuperscript{1}, Shanshan Li\textsuperscript{1}, Xiaochuan Pan\textsuperscript{3}

\textsuperscript{1}Division of Epidemiology and Biostatistics, School of Population Health, The University of Queensland, \textsuperscript{2}Center for Environmental Risk and Damage Assessment, Chinese Academy for Environmental Planning, Beijing, China, \textsuperscript{3}Department of Occupational and Environmental Health, School of Public Health, Peking University, Beijing, China.

Background: Extreme cold and hot days tend to appear frequently in China due to climate change. However, little evidence is available on the associations between extreme temperatures and cause-specific cardiovascular mortality in China. This study examined the effects of ambient temperature on ischemic heart disease and stroke mortality in four climatic zones in China.

Method: We collected daily data on weather conditions, air pollution and cause-specific cardiovascular deaths from five cities (Beijing, Tianjin, Shanghai, Wuhan, and Guangzhou) in China during 2004-2008. Two-stage analysis was used to assess the relationships between ambient temperature and cause-specific cardiovascular mortality. At the first stage, we examined city-specific associations between temperature and mortality, while adjusting for seasonality, long-term trend, day of the week, relative humidity and air pollution. We examined cold effects using a 1°C decrease in temperature below a city-specific threshold, and hot effects using a 1°C increase in temperature above a city-specific threshold. At the second stage, we used a meta-analysis to summarize the cold and hot effects across the five cities.

Results: For both ischemic heart disease and stroke mortality, Beijing and Tianjin (north cities with low mean temperature) had lower thresholds than Shanghai, Wuhan and Guangzhou (southern cities with high mean temperature). In general, the effects of hot temperatures appeared immediately and lasted for 2 days in all five cities, while the effects of cold temperatures were delayed and lasted for 10 days. The hot effects were followed by mortality displacement (harvesting effect). The effect estimates of cold effects were higher than those of hot effects.

Conclusion: Both cold and hot temperatures are associated with cause-specific cardiovascular mortality in China. But people in colder climate cities were sensitive to hot temperatures, while people in warmer climate cities were vulnerable to cold temperature.

Presenter Biography:
Dr Yuming Guo is a Research Fellow at Division of Epidemiology and Biostatistics, in The University of Queensland School of Population Health. Dr Guo is an Epidemiologist and Biostatistician with much experience in modelling the associations between environmental exposures and human health. His research interest is in assessment of the impacts of air pollution, climate change on human health using advanced statistical models. His research findings have been published by prestigious journals, for example, BMJ, Environmental Health Perspectives, Epidemiology, and Heart, etc. Dr Guo has been invited to be a peer reviewer for many journals including the Lancet, JAMA, BMJ, Environmental Health Perspectives, and American Journal of Epidemiology, etc. He has been invited to present at international and national conferences and seminars. Dr Guo has developed an international collaboration with scientists from 13 countries to examine the disease burden of air pollution, global climate change on human health, and to improve the methodology for health risk assessment. Dr Guo is a member of think tank for climate change and health in Australia. He has studied and worked at Peking University, and Queensland University of Technology. He is an adjunct professor at Faculty of Medicine in the University of Oulu, Finland.
Capability for tobacco control of disease control and prevention institutions in Shandong province

HOU Jia-xiang* XU Ling-zhong** CHEN Liang-xia*

(*Shandong Center for Disease Control and Prevention, Ji’nan Shandong Province 250012 China. ** School of Public Health Shandong University Ji’nan Shandong Province 250012 China)

To examine the capability for tobacco control of the disease control and prevention institutions. Surveys on tobacco control activities smoking-related risk factors monitoring smoking prevalence and smoking control capacity training in recent 5 years were conducted among the three level disease control and prevention institutions in Shandong province. The results showed that among the institutions, 96.40% carried out tobacco control activities 85.05% assigned the department of health education to be responsible for tobacco control and 71.96% carried out tobacco surveillance and smoking epidemiological survey. The interventions on tobacco control mainly concentrated upon the World No-Tobacco Day publicity campaigns routine health education activities smoke-free hospital and school establishment. Less activities on anti-tobacco promotion no tobacco advertising city establishment and technical training for smoking control were carried out. The funds of tobacco control the institutions got was insufficient and mainly raised by the institutions themselves. The conclusion is that the capability and enthusiasm for tobacco control of the disease control and prevention institutions need to be improved. The government and public needs to increase participation and support on tobacco control work.

Presenter Biography:
Hou Jia-xiang, male, the vice director of Office of Shandong Center for Disease Control and Prevention, the director of the Office for News and Propaganda. He is also the associate professor doctor, the vice chairman and secretary general of the Public Health Professional Committee of Shandong Association of Health Economic, the member of standing committee of Shandong Preventive Medicine Association Health Education Branch, the member of the council of Chinese Association On Smoking Control, the vice director of office of Shandong Association On Tobacco Control. He is mainly engaged in policy research for disease control and research for health education and health promotion. He has published nearly 30 papers and over 10 books.

Opportunities for Acute Health System Research in China

Dr Xiang-Yu (Janet) Hou

School of Public Health and Social Work, Queensland University of Technology

Health System Research (HSR) has gained its recognition among researchers with the Second Global Symposium on Health Systems Research organised by WHO in 2012. However, most research has been conducted in the macro level of a health system, especially the universal health coverage at a national level. There has been little attention to the acute health system research, despite its vital importance for the population health and the stability of a society.

Acute Health system research usually focuses on ambulance system and hospital Emergency Departments (EDs). My team has been investigating a range of aspects in acute health system in Australia such as the role of private EDs in Australia; paramedic education and government ambulance usage campaign evaluation; ED patient population research including what health problems brought the patients to EDs, their acuity and severity, and effect of language and culture on EDs use in Queensland.

Our research experience at QUT presents a significant and timely opportunity to collaborate with researchers in China to investigate the acute health system in China, such as financing, workforce and quality of care, so that strong research evidence could be presented to policy makers in China to improve the acute health system for all patients in China.

Presenter Biography:
Dr Xiang-Yu (Janet) Hou is an Associate Professor in Epidemiology at School of Public Health & Director of Research Development in North Asia at Queensland University of Technology (QUT). Graduated with a Bachelor of Medicine from Shandong University, Masters in Medicine from Peking University and a PhD from QUT, Dr Hou’s research interests are in acute health system research including ambulance services and emergency medicine in Australia and China.

She is a member of American College of Epidemiology and Australasian Epidemiology Association. She has published over 65 peer reviewed research papers and 2 book chapters. Dr Hou has been a co-Editor for four international peer reviewed journals in emergency medicine and epidemiology. She supervises over 12 PhD students at QUT School of Public Health and Social Work.
Devsecurement of early warning systems for infectious diseases based on socio-ecological factors

Dr. Wenbiao Hu
School of Public Health and Social Work, Institute of Health and Biomedical Innovation, Queensland University of Technology

The understanding of the social and environmental predictors (including weather factors) of infectious diseases outbreaks will be useful to predict future outbreaks and to develop effective intervention measures to minimise the impact of these outbreaks. Time series and Bayesian spatiotemporal models have played a key role in understanding the social and environmental determinates of infectious diseases. The integrated use of these models at a variety of spatial scales has provided new insights into early warning system (EWS) for infectious diseases. This presentation will discuss how to identify the relationship between socio-ecological factors and infectious diseases, and what extent these social and environmental predictors can be used for developing an EWS in different regions.

Presenter Biography:
Dr. Hu has more than 28 years working and research experience and substantial knowledge and skills in environmental health and infectious diseases. His research interests are on infectious disease ecology and epidemiology. He has published more than 80 peer-reviewed articles in international and national journals. Dr. Hu has been awarded four highly prestigious and competitive grants (including a NHMRC postdoctoral research fellowship, a NHMRC project grant, a QUT Vice-Chancellor Senior Research Fellowship and a Hong Kong Health and Medical Research Funds). He has a leadership role in the NHMRC project between China (China Centre for Disease Control and Prevention (CDC)) and Australia. Dr. Hu has supervised 6 PhD students, 2 Masters research students and 1 Masters research dissertation to completion.

Investigations of alcohol-related driving in China

Keqin Jia1,2, Mark King1, Judy Fleiter1, Mary Sheehan1, Wenjun Ma1, Jing Lei1, Jianzhen Zhang1
1Centre for Accident Research and Road Safety-Queensland, Queensland University of Technology, 2Guangdong Institute of Public Health, Guangdong Centre for Disease Control and Prevention, Yinchuan Centre for Disease Control and Prevention, Ningxia, 1School of Medicine, University of Queensland, Australia

Objective: Alcohol consumption is a critical health consideration in China. More specifically alcohol-related driving represents a serious public health threat. In 2012, there were 5,254 alcohol-related traffic crashes which resulted in 2,228 fatalities and 5,291 injuries; with a direct economic loss of 33 million RMB (5.3 million US Dollars). On 1st May, 2011, a national law was introduced to criminalize drunk driving, imposing serious penalties including jail for committing this offence. This study, undertaken a year after the introduction of the law, aimed to examine car drivers’, drunk driving offenders’ and traffic police officers’ perceptions of drinking and driving and experiences of alcohol breath testing in Guangzhou and Yinchuan. Levels of problematic alcohol use were also explored among the driver samples.

Methods: Qualitative and quantitative research methods were used. Semi-structured interviews were used to gain an in-depth understanding of issues relevant to alcohol-related driving among 16 traffic police officers. Additionally, questionnaires were completed by 105 traffic police, 207 drunk driving offenders recruited while in detention; and 802 general car drivers from different occupations and age groups. The Alcohol Use Disorders Identification Test (AUDIT) was used to assess alcohol drinking problems.

Results: Traffic police officers reported three primary reasons why they believe that people drink and drive: 1) being prepared to take the chance of not being apprehended by police or not being involved in a crash; 2) the strong traditional Chinese drinking culture; and 3) Insufficient public awareness about the harmfulness of drinking and driving. Police reported the need for improvements in resourcing (human and equipment, such as breathalyzers), and cooperation between government agencies that deal with offenders. The majority of car drivers and offenders reported knowing about the amended law. However, their knowledge about the two legal limits for “drink driving” (Blood Alcohol Concentration (BAC) 20mg-80mg/100ml) and “drunk driving” (BAC>80mg/100ml) was low. The AUDIT scale showed that both driver groups were problematic alcohol users and a substantial proportion of offenders in both cities had a high level of alcohol use disorders.

Conclusions: High level of alcohol use disorders in the driving population, especially in drunk driving offenders, and increasing numbers of cars on China’s roads is likely to impact on road safety. This research indicated that limited awareness of legal alcohol limits and of the harmful outcome of drink driving contributes to offending. It is important to assist in developing community education, prevention efforts and legislation.

Presenter Biography:
Mr Jia graduated from Ningxia Medical University with a Bachelor of Medicine (Public Health) in 1986 and worked as a public health practitioner, Environmental Health Officer and Food Hygiene Auditor in Yinchuan City CDC for 16 years. He successfully completed a Graduate Diploma of Environmental Health in 2005 and a Masters of Applied Science at QUT in 2010.

Mr Jia commenced his PhD candidature with the CARRS-Q, QUT in January 2011 and is scheduled to complete in late 2014. The aim of his PhD study is to investigate drivers’ knowledge, attitudes and practices in relation to drinking and driving in Guangzhou and Yinchuan, China. This research also aims to assess the rates of alcohol-related problems among drunk driving offenders and explore traffic police officers’ perceptions about drink driving enforcement.

He won a 2012 Prime Minister’s Endeavour Australia Asia Award and successfully conducted data collection in China, and also completed a two-month internship with the WHO China Office on two road safety projects with the Building Healthy Community and Population team. He has published three peer-reviewed papers from his PhD research thus far and is currently preparing three additional papers for journal submission in 2014.
Managing children and adolescent mental health in Guangdong community
Yu JIN M.D. Associate Professor
Department of Maternal and Child Health, School of Public Health, Sun Yat-sen University

The need of mental health of children and adolescents in Guangdong Province has increased rapidly. Administration, education sector, health care and social organizations have implemented various interventions to cope with it. The department of health of Guangdong province has established mental health services in the child health care work system in maternity and child care hospital. General practitioners are required to learn prevention and treatment skills of children mental diseases additionally. Early identification and early intervention for mental disorder of children and adolescents are energetically advocated now. Severe mental disorder would take treatment in psychiatric hospital and clinic in general hospital. Department of education of Guangdong province has claimed that various universities, primary and secondary schools, kindergartens should establish mental health care system, set mental health course and training of parents, and carry out mental health education and skills training relying on professional association and mental health care professionals. Guangdong disabled persons’ federation and education departments have set up special schools to meet the need of children with disability in each city or area, and granted financial subsidies to children with special education need. Some governments have provided support for children with mental health care needs in communities through social work services. However, the current need of children and adolescent mental health is far from satisfied, because of scarce of specialist such as psychiatrists, psychologists and social workers and so on, insufficient resource integration, less government financial investment, and limited relate research. Therefore, it is urgent to establish the efficient coordination and operation mechanism of multiple departments, and establish children and adolescents’ mental health care network in Guangdong.

Presenter Biography:
Associate Prof. Yu Jin trained in pediatrics at Harbin Children's Hospital after graduated from Harbin Medical University. And then she trained in Psychiatry in Sun Yat-sen University and obtained MD of Psychiatry in Central South University Xiangya Second Hospital. Now, she is a clinical expert in diagnosis and treatment of mental disorder of child and adult. She is currently vice director of Department of Maternal and Child Health Care in Sun Yat-sen University School of Public Health.

Her major research interests are in the early prevention and neuropsychological mechanism of developmental and behavioral diseases. Using primary care strategy, she also involved in "Well-being of Women and Children Project” in Guangdong Province. She is the Principal investigator for neural circuit researches of Autism Spectrum Disorders, funded by National Natural Science Fund of China.

She is currently a youth member of Society of Child Health of CPMA and General Medicine Section of CMA. She held the post of vice chairman of Specialist Committee of Autism Spectrum Disorders, and vice chairman of Specialist Committee of Autism Spectrum Disorders funded by National Natural Science Fund of China.

She is the principal investigator for the Well-being of Women and Children Project in Guangdong Province. She is the principal investigator for neural circuit researches of Autism Spectrum Disorders, funded by the National Natural Science Foundation of China.

Promoting mental health of university students: Assessing and managing depression
Khawaja, N.G.
School of Psychology & Counselling, Queensland University of Technology (QUT)

University experiences of students can be stressful due to a range of psycho-social and academic challenges. The difficulties are more complex for international students, who, along with other adjustments, have to adapt to different cultural norms, language and educational system (Smith & Khawaja, 2011). Substantial evidence indicates that 25 to 75 percent of university students experience depression worldwide, which impacts their mental health and is the major reason to consult university counselling centers. It leads to poor academic performance and iteration. University Students Depression Inventory (USDI) (Khawaja & Bryden, 2006) is the only measure developed in consultation with students to identify and assess depression among students. It is effective in capturing the depressive symptoms and experiences of tertiary students. The factor structure, psychometric properties and its cross-cultural use have been confirmed by using students from different countries (Romaniuk & Khawaja, 2013; Khawaja, Santos, Habibi & Smith, 2013; Habibi, Khawaja, Moradi, Dehghani, Fadaei, in press). It has been translated and used effectively with university students residing in Portugal, India, and Iran. Further, recent research has indicated the demographic factors and specific students’ characteristics that can increase their susceptibility to depression (Khawaja & Dempsey, 2007; 2008; Khawaja & Duncanson, 2008). However, depression can be managed through carefully crafted psycho-social interventions that address the stressors of the university students and strengthen their coping, adaptation and psycho-social and academic skills. STAR (Strength, Transitions, Adjustments and Resilience) (Smith & Khawaja, in press) is a resilience building program that can be used in group and individual settings. It is experiential and cognitive-behavioural in nature and promotes coping and psychological adaptation of the students. STAR has been tried with the international students in Australia, but also has the potential to be used with the domestic students (Smith & Khawaja, in press). Considering, that there are approximately 20 million university students in China with an increasing number of international students, a collaborative research program which assesses and manages the Chinese university students’ depression is proposed. A translated version of USDI will be used to screen depressed students. Factors associated with depression will be investigated. STAR will be used to improve the mental health of vulnerable students. University mental and allied health staff will be trained to run effective interventions in future. Cross-cultural comparisons between the Australian and Chinese students will be conducted to establish best practice processes to promote mental health of students.

Presenter Biography:
Dr. Khawaja is an Associate Professor and a Clinical Psychologist at the School of Psychology & Counselling, Queensland University of Technology (QUT), Brisbane, Australia. She has been teaching in Professional Doctorate and Masters of Clinical Psychology and Educational and Developmental Psychology programs for 15 years. She is a member of the Australian Psychological Society (APS), APS’s College of Clinical Psychology, National Psychology Board (AHPRA) and the Academy of the Intercultural Relations (AIRS). She researches clinical, cross-cultural and transcultural issues. She has investigated anxiety and depression in general and student population. She has examined the acculturation and psychosocial issues of international students, migrants, refugees and asylum seekers. She has expertise in scale development and validation and has developed 5 new measures and validated 9 existing measures. She is also interested in intervention and has developed new culturally appropriate and sensitive treatment programs for international students, migrants and refugees. Along with her academic and research roles, she offers cultural and multilingual consultaencies as a clinician. Dr. Khawaja has been has been on the executive committee of the APS Cultures and Psychology Interest Group for six years and the national chair for four years. As a part of this role, she pioneered and established professional development programs for mental health professionals in Australia.
Transport and health in China: recent collaborative research relating to vehicle factors and pollution

Mark King
CARRS-Q: Centre for Accident Research and Road Safety – Queensland, School of Psychology and Counselling, QUT

The nature of the transport system contributes to public health outcomes in a range of ways. The clearest contribution to public health is in the area of traffic crashes, because of their direct impact on individual death and disability and their direct costs to the health system. Other papers in this conference address these issues. This paper outlines some collaborative research between CARRS-Q (QUT) and Chinese researchers in areas that have indirect health impacts.

Heavy vehicle dynamics: The integrity of the road surface influences crash risk, with ruts, pot-holes and other forms of road damage contributing to increased crash risks. The majority of damage to the road surface from vehicles is caused by heavy trucks and buses, rather than cars or smaller vehicles. In some cases this damage is due to deliberate overloading, but in other cases it is due to vehicle suspension characteristics that lead to occasional high loads on particular wheels. Together with a visiting researcher and his colleagues, we have used both Queensland and Chinese data to model vehicle suspension systems that reduce the level of load, and hence the level of road damage and resulting crash risk.

Toll worker exposure to vehicle emissions: The increasing construction of highways in China has also involved construction of a large number of toll roads. Tollbooth workers are potentially exposed to high levels of pollutants from vehicles, however the extent of this exposure and how it relates to standards for exposure are not well known. In a study led by a visiting researcher, we conducted a study to model these levels of exposure for a tollbooth in China.

Noise pollution: The increasing presence of high speed roads in China has contributed to an increase in noise levels. In this collaborative study we modelled noise levels associated with a freeway widening near a university campus, and measures to reduce the noise.

Along with these areas of research, there are many other areas of transport with health impacts that are worthy of exploration. Traffic, noise and pollution contribute to a difficult environment for pedestrians, especially in an ageing society where there are health benefits to increasing physical activity. By building on collaborations such as those outlined, there is potential for a contribution to improved public health by addressing transport issues such as vehicle factors and pollution, and extending the research to other areas of travel activity.

Presenter Biography:
Dr Mark King is a Senior Lecturer at the Centre for Accident Research and Road Safety – Queensland (CARRS-Q) at QUT. He commenced his academic career in 2004 after more than two decades in road safety research and policy with the Federal, Victorian, South Australian and Queensland Governments. He is a member of the International Council for Alcohol, Drugs and Traffic Safety, the Australasian College of Road Safety, the Road Traffic Injury Research Network and the Australian Injury Prevention Network. Since 2008, Mark has researched and published across a wide range of road safety topics, and has produced a number of reports based on commissioned research for government and private organisations. He has a strong interest in the translation of research into practice, and the transfer of road safety knowledge and expertise. A significant proportion of his research focuses on older and vulnerable road users, including pedestrians, cyclists and road workers.

Better health outcomes for people with physical disabilities in China through audits of mobility-related access: a research and implementation need

Julie Kinga, Mark Kingb, Niki Edwardsa, Md Mazharul Haqueb and Ashim Debnathb

a PHSW: School of Public Health and Social Work, QUT, b CARRS-Q: Centre for Accident Research and Road Safety – Queensland, School of Psychology and Counselling, QUT

China has 85 million people with disabilities, 30% of whom have a physical disability. Up to 2006, overall disability rates increased by 0.5% per year, more for males and in rural areas, and rates of physical disability increased by 11.2% per year. With population ageing the proportion of people with disability will increase even further.

In May 2014 the 67th World Health Assembly adopted a resolution endorsing the WHO Global Disability Action Plan 2014–2021. One of its three objectives is “to remove barriers and improve access to health services and programmes”. Access to transport contributes to positive health outcomes both directly and indirectly (e.g. access to economic opportunities, which is associated with better health). However, once people with physical disabilities leave their dwellings they are confronted with physical barriers to their mobility, ranging from the condition/provision of paths to the cost/availability of transport and access to buildings. In addition, their mobility restrictions increase their vulnerability as road users, exposing them to a higher risk of injury through road crashes.

PHSW and CARRS-Q have been collaborating on development of a combined r disability audit and road safety access tool that can identify transport barriers and safety issues along the routes taken by people with disabilities, to enable prioritisation of actions to address these issues. There are also spin-off benefits for other road users from addressing the rising toll of disability through road crashes in China. The tool has undergone initial proof-of-concept testing in India and Viet Nam, and is currently being assessed in Cambodia and Laos.

Given the rapid development of China, increases in rates of physical disability and the impacts of an ageing population, it is proposed to establish collaborative research through the Australia-China Centre for Public Health to (1) tailor the combined road safety audit and disability access tool for use in China; (2) evaluate its use on a sample of routes; (3) develop plans for changes to the routes in consultation with local authorities; (4) evaluate the effectiveness of implemented changes in terms of access and health.

Presenter Biography:
Julie King is a medical anthropologist who has a Master of Public Health (Tropical Health) from UQ for which she was awarded the Australasian College of Tropical Medicine Medal and a Dean's commendation for academic excellence. She also has a PhD in medical anthropology from QUT. Julie has a strong interest in disability and gender in low and middle income countries. She takes a human rights and inclusive development approach to working and researching in numerous countries in the Asia-Pacific and Africa including Thailand, Cambodia, Laos, Nepal, Fiji and Tanzania in the areas of disability, human rights and gender. Currently she is leading a project to develop a community access tool for persons with disability with CARRS-Q and Handicap International in Cambodia and Laos. She has led a team in the development of a gender-mainstreaming training manual for the Ministry of Health in Fiji. Julie has led many Australia Award Fellowship training programs for Africa and Asia in the areas of disability, gender and inclusive disaster management. She also has a keen interest in the cross-cultural nature of disability in Australia and has conducted research amongst Indigenous Australian and is currently leading a research project exploring disability amongst refugees.
Methods: A cross-sectional questionnaire survey was conducted among all pre-hospital doctors from the emergency centers in Wuhan and Xiangyang in Hubei Province. The self-administered questionnaire consisted of demographic information of participants, doctors’ knowledge about TBI identification, assessment and management. Knowledge was assessed by an aggregated score summing all correct answers. Independent samples t-test or one-way ANOVA was used to determine group differences in the mean knowledge scores.

Results: Among the 52 pre-hospital doctors who completed the survey (response rate 92.86%), only 15 (28.8%) reported that they were very familiar with Glasgow Coma Scale (GCS) and have always assessed GCS score for potential TBI patients in pre-hospital settings, which is recommended by BTS. 47 (90.4%) doctors chose 20% mannitol for TBI patients if elevated Intracranial pressure (ICP) was suspicious. Only 1 doctor (1.9%) administered hypertonic saline, which has been proved safer and effective to reduce ICP in the literature. The education level, work unit, service year, professional title, specialty before they worked in trauma medicine system and frequency of training were significantly associated with the knowledge levels of pre-hospital TBI management. Particularly, pre-hospital doctors with higher frequency of training had significantly higher overall scores than those with lower frequency of training (F=4.153, p=0.022). The overall scores of doctors with a professional title of attending doctor or above were significantly higher than the scores of doctors with lower titles (F=2.12, p=0.039).

Conclusion: The knowledge of pre-hospital TBI management among the doctors in central part of China needs to be improved. Future research is needed to provide evidence and develop the training programs for pre-hospital doctors in TBI management in China.

Presenter Biography:
Kou Kou is a research master at School of Public Health, Queensland University of Technology (QUT). Graduated with a Bachelor of Medicine from Hainan Medical University, Kou's research interest mainly focuses on pre-hospital management and neuroscience.
Prenatal Supplementation of Multi-Micronutrient, Folic acid Plus Iron or Folic Acid and Preterm Birth

Zhiwen Li, M.D. Ph.D.
Institute of Reproductive and Child Health/Ministry of Health Key Laboratory of Reproductive Health, Peking University Health Science Center

Background: Observational studies suggested a protective effect of prenatal use of folic acid (FA) or multiple micronutrient (MMN) containing FA on preterm birth (PTB). We assessed the effect of prenatal use of MMN and iron-folic acid (IFA) vs folic acid on preterm births. We also examined the impact of supplementation timing on PTB.

Methods: Double-blind randomized controlled trial (clinicaltrials.gov Identifier: NCT00133744). 18,775 nulliparous pregnant women with mild or no anemia were enrolled from 5 counties of northern China from 2006 through 2009, and randomly assigned to daily FA, IFA, or MMN provided before 20 weeks gestation to delivery. Gestational age was calculated based on the last menstrual date. The final analysis included 17,748 women who delivered singleton live births at 20 weeks of gestation or later. The incidence of PTB and the protective effect of MMN and IFA vs FA were assessed by intention to treat.

Results: The PTB incidence for women consuming FA, IFA and MMN was 5.98%, 5.74% and 5.21%, respectively. Compared with women given FA, the risk ratio (RR) of PTB for those consuming MMN and IFA was 0.86(95% CI: 0.74-1.01) and 0.96(0.82-1.12). The protective effect of MMN vs FA was significant for early onset PTB (RR:0.50, 0.28-0.87), but not for late onset PTB(RR:0.91, 0.77-1.07). The PTB incidences for women who started consuming FA, IFA and MMN before 12 gestational weeks (4.67%, 4.15%, 3.81%, respectively) were significantly lower than those who started consuming these supplements during 12th gestational week or later (7.40%, 7.45%, 6.75%, respectively). Relative to the women who started taking FA at 12th gestational week or later, the RRs of PTB for women who started consuming FA, IFA and MMN before 12 gestational weeks were 0.64(0.49-0.76), 0.54(0.43-0.68), and 0.49(0.39-0.62). For early onset PTB, the corresponding RR were 0.64(0.33-1.24), 0.64(0.33-1.24) and 0.21(0.08-0.55), respectively.

Conclusion: Maternal MMN supplementation, as compared with FA, can further reduce early preterm births. The protective effect of multivitamin supplementation on PTB is strongest for women who started supplementation before 12 gestational weeks.

Presenter Biography:

Dr. Zhiwen Li is an epidemiologist. He has a medical background and a PhD degree in Epidemiology from the Peking University School of Public Health. His research interests are mainly focused on two areas: 1) Effects of Air pollution on Women and Children's Health; 2) Effects of Nutrition during pregnancy on Maternal and Child Health. His work is focused on nutrition-related diseases and NCDs. Her research field involves obesity prevention, healthy eating and physical activity promotion in children and adults, as well as early nutrition and child brain development. She is a committee member of National School Feeding Program, and joined works in policy-making relating public health nutrition and child injury prevention.
The Association between Ambient Temperature and Children's Lung Function in Baotou, China

Shanshan Li, Yuming Guo, Gail Williams, Peter Baker, Xiaofang Ye, Lina Madaniyazi, Dae-Seon Kim, Xiaochuan Pan

Objective: To examine the association between ambient temperature and children's lung function in Baotou, China.

Materials and methods: We recruited 315 children (8-12 years) from Baotou, China in the spring of 2004, 2005, and 2006. They performed three successive forced expiratory measurements three times daily (morning, noon, and evening) for about five weeks. The highest peak expiratory flow (PEF) was recorded for each session. Daily data on ambient temperature, relative humidity, and air pollution were monitored during the same period. Mixed models with a distributed lag structure were used to examine the effects of temperature on lung function while adjusting for individual characteristics and environmental factors.

Results: Cold temperatures were significantly associated with decreases in PEF. The effects lasted for lag 0-2 days. Generally, the effects of temperature were slightly stronger in boys than in girls for noon, evening, and daily mean PEF, while the effects were stronger in girls for morning PEF. PM2.5 had joint effects with temperature on children's PEF. Higher PM, increased the impacts of cold temperature.

Conclusions: Cold ambient temperatures are associated with lower lung function in children in Baotou, China. Preventive health policies will be required for protecting children from the cold weather.

Presenter Biography:
Shanshan Li, a Research Master graduate from Peking University School of Public Health, came to Australia in 2011 to complete my PhD in The University of Queensland School of Population Health. My research interests involve child health, environmental epidemiology and biostatistics. During my RHD journey, I have published dozens of papers in the high ranked international journals (e.g., BMJ, European Respiratory Journal, Environmental Research, Heart, et al.), and I have presented at certain important (e.g., ISSEE, AEA) conferences in the relevant field. As a young investigator, I have been participated in and got access to various international and national public health studies, such as the WHO, UNICEF, China's MOE and ACHAPS projects. Currently, I wish to co-research collaborating with China and some other Asian and European countries, to model the effects of air pollution and meteorological factors on human health. My PhD scholarship was supported by the Australian Government and The University of Queensland, and I was awarded The National Award for Outstanding Self-financed Chinese Students Study Abroad in 2013. I will conduct my postdoctoral fellowship with University of Sydney and University of Queensland together to continue my research work and promote human health.

mHealth: A promising approach for improving child nutrition to prevent childhood obesity

M Li, 2*, H Jiang3, LM Weni, 4, QZ Hu3, DL Yang3, GS He4, 5, LA Baur1,6, MJ Dibley1 and X Qian3, 5

Objective: To examine the association between ambient temperature and children's lung function in Baotou, China.

Materials and methods: We recruited 315 children (8-12 years) from Baotou, China in the spring of 2004, 2005, and 2006. They performed three successive forced expiratory measurements three times daily (morning, noon, and evening) for about five weeks. The highest peak expiratory flow (PEF) was recorded for each session. Daily data on ambient temperature, relative humidity, and air pollution were monitored during the same period. Mixed models with a distributed lag structure were used to examine the effects of temperature on lung function while adjusting for individual characteristics and environmental factors.

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Presenter Biography:
Shanshan Li, a Research Master graduate from Peking University School of Public Health, came to Australia in 2011 to complete my PhD in The University of Queensland School of Population Health. My research interests involve child health, environmental epidemiology and biostatistics. During my RHD journey, I have published dozens of papers in the high ranked international journals (e.g., BMJ, European Respiratory Journal, Environmental Research, Heart, et al.), and I have presented at certain important (e.g., ISSEE, AEA) conferences in the relevant field. As a young investigator, I have been participated in and got access to various international and national public health studies, such as the WHO, UNICEF, China's MOE and ACHAPS projects. Currently, I wish to co-research collaborating with China and some other Asian and European countries, to model the effects of air pollution and meteorological factors on human health. My PhD scholarship was supported by the Australian Government and The University of Queensland, and I was awarded The National Award for Outstanding Self-financed Chinese Students Study Abroad in 2013. I will conduct my postdoctoral fellowship with University of Sydney and University of Queensland together to continue my research work and promote human health.

mHealth includes the use of mobile devices to improve adherence to health advice, increase access to health information, and promote healthy behaviours. One of the fastest growing applications of mHealth is mobile short message service (SMS), whereby health promotion and relevant health information messages are sent directly to targeted recipients. The advantages of using SMS in health promotion interventions include: a relatively low cost; avoidance of travel to health facilities; flexible service delivery; and messages are delivered quickly to a large number of participants. Communication between healthcare providers and participants can also be interactive, for example, mothers can send their questions via SMS for personalised advice.

Early nutrition in the first years of life influences many health outcomes, including obesity and non-communicable diseases later in life. However, feeding practices for infants and young children in both developed and developing countries are still suboptimal. Hence, strategies are needed to support appropriate feeding practices. Such strategies must achieve the maximum population reach at a low cost and be easily sustainable by local health services.

To address knowledge gaps in mHealth, we have conducted a community-based SMS infant feeding promotion intervention among expectant and new mothers in Shanghai, China to test the feasibility and acceptability of this approach. The preliminary results are very encouraging. The feasibility and acceptability are demonstrated by a high retention rate and improved feeding practices. The duration of exclusive breastfeeding for children younger than 6 months significantly increased and the number of infants having complementary foods before 4 months significantly decreased. The qualitative evaluation with both healthcare providers and mothers revealed: 1) the SMS intervention could be computerised and was easy to operate without high cost; 2) the messages were evidence based and tailored for mothers feeding status; 3) the intensity of the intervention could be increased to bring about behaviour change; 4) mothers liked the flexibility of accessing messages—at the time that is convenient to them and the ability to be read repeatedly; 5) mothers trusted the contents of messages sent by health professionals and thought the SMS intervention was a good way to obtain information. In summary, using SMS to promote breastfeeding is well accepted and feasible in Shanghai. This may prove to be a model for culturally-acceptable healthy infant feeding promotion to prevent childhood obesity in other countries undergoing similar socio-economic and nutrition transitions like China.

Presenter Biography:
Dr. Mu Li is an Associate Professor and Academic Program Coordinator in international public health at the Sydney School of Public Health, and Director of Public Health Strategic Program, China Studies Centre, The University of Sydney.

Dr Li's major teaching and research interests are in public health nutrition, include micronutrient deficiencies and childhood obesity prevention, and public health program evaluation. She played key roles in the Australia-China technical collaboration on Iodine Deficiency Disorders Elimination in China and Iodine Deficiency Disorders Elimination project in Tibet. She is a current board director of the International Council for the Control of Iodine Deficiency Disorders/Global Network.

Dr Li instigated and is a chief investigator of a collaborative research in China using mobile phone short message service (SMS) technology to promote breastfeeding and healthy infant feeding practices to prevent early onset of childhood obesity. Dr Li leads the human nutrition component of a multi-disciplinary research project to improve maternal and child food and nutrition security in Tanzania and Zambia. Dr Li is a key researcher of the Global Alliance of Improved Nutrition (GAIN) evaluation consortium for Infant and Young Child Feeding Behavior Change Communication program in Indonesia.
Sustained iodine deficiency disorders elimination program in China: what can be learnt from China's approach to the public health program?

M Li
School of Public Health and China Studies Centre, The University of Sydney, Sydney, Australia (mu.li@sydney.edu.au)

Iodine deficiency disorders (IDD) have been widely recognised as a major public health problem throughout the world, affecting developing and developed countries alike. Salt iodization has been recommended as the preferred strategy to control and eliminate IDD. As recently as the early 1990s, IDD was widespread in China. At that time, about 720 million people, or about 40% of the world's population at risk of iodine deficiency, lived in China. In 1993, the State Council of China established the national IDD Elimination Program, adopting salt iodization as the principal strategy for IDD prevention and control. By 2000, the national coverage of iodized salt is greater than 90%, and IDD was virtually eliminated in China. This achievement has been sustained for more than 10 years.

The China IDD program is supported by 3 pillars: (1) the national regulations and standards for the production, wholesale, and inspection of salt and iodized salt have been defined in a series of regulatory documents on edible salt monopoly, iodine content, and production/wholesale quality management. Only designated salt producers may iodize salt if they are judged to meet these standards; (2) stringent internal and external quality assurance testing is undertaken at both the production and wholesale levels. As a result, almost all salt is iodized, except in areas with high levels of iodine in the drinking water, where policy requires that non-iodized salt be provided; and (3) multi-sectoral collaboration and social mobilisation. All these are made possible by high and sustained levels of political commitment, including sufficient funding and prioritization of IDD elimination on the social and economic development agenda.

China's IDD elimination program has come a long way, gone through a 'maturation' process, informed by the sophisticated monitoring and surveillance system, consisting of: (1) annual national salt monitoring; (2) regular (every 3-5 years) national IDD survey; (3) targeted monitoring in high risk areas of low iodised salt coverage and special investigations in areas of concerns of possible excessive iodine intake. As the results of the close monitoring and surveillance, China has revised twice the salt iodization standards. The recent policy change to move from one national salt iodization standard to provincial standards reflects the recognition of the differences in iodine nutrition between provinces. Delivering a national public health program of such magnitude, China has set a good example of systematic monitoring and using the surveillance data to adjust and refine policies to achieve sustainability.

Presenter Biography:
Dr. Mu Li is an Associate Professor and Academic Program Coordinator in international public health at the Sydney School of Public Health, and Director of Public Health Strategic Program, China Studies Centre, The University of Sydney.

Dr Li's major teaching and research interests are in public health nutrition, include micronutrient deficiencies and childhood obesity prevention, and public health program evaluation. She played key roles in the Australia-China technical collaboration on Iodine Deficiency Disorders Elimination in China and Iodine Deficiency Disorders Elimination project in Tibet. She is a current board director of the International Council for the Control of Iodine Deficiency Disorders/Global Network.

Dr Li instigated and is a chief investigator of a collaborative research in China using mobile phone short message service (SMS) technology to promote breastfeeding and healthy infant feeding practices to prevent early onset of childhood obesity. Dr Li leads the human nutrition component of a multi-disciplinary research project to improve maternal and child food and nutrition security in Tanzania and Zambia. Dr Li is a key researcher of the Global Alliance of Improved Nutrition (GAIN) evaluation consortium for Infant and Young Child Feeding Behavior Change Communication program in Indonesia.

Research on the Development of Nursing Home Care: Demand and Supply
Shixue LI, PhD Professor
Director of Hospital & Health Management division, Shandong University

Research Objectives The goals of this research are to analyze the current status of nursing home care in China in terms of demand of elderly people and supply of nursing facilities, using qualitative and quantitative research methods. Specific aims of the research are to: 1) investigate the perceived nursing home care demands of elderly residents in urban and rural areas, as well as current supply in Jinan China, and examine the potential gap between nursing home care demand and supply; 2) identify the predictors of demand for nursing home care and determinants of occupancy rate in nursing facility; 3) evaluate the efficiency and quality of nursing home care; 4) provide recommendations on nursing home development for government and policymakers.

Principal Findings
1. Demand for nursing home care of the elderly and predictors: Among the 1071 elderly residents surveyed, only a small number were willing to reside in nursing home, and the percentage was 7.60% in urban area and 5.00% in rural area. The expected nursing home services were focused on daily care and medical care.
2. Current supply of nursing home care: There were 48 nursing facilities located in five districts in Jinan with approximately 5,000 beds. Out of 45 nursing facilities investigated, nine were owned by the government or non-for-profit organizations, and 36 were owned by individual. Service environments in the majority of nursing homes can meet the requirements of regulations and standards made by the government.
3. Qualitative analysis of nursing home care quality: Most participants in focus groups for administrator were satisfied with the quality of nursing care; however, some participants of focus groups of nursing home residents concerned the quality of nursing home care.
4. The gap between demand and supply: There was a huge gap between the demand for nursing home of elderly people and the beds supply in nursing homes in Jinan. Theoretically, the bed size of nursing facility should increase by 1.72 times in order to meet the demand for nursing home care. Gap also remained between the level of service, the quality of nursing home care and the demand of the elderly.
5. Utilization of nursing home care and determinants: Average occupancy rate of nursing facilities in Jinan was approximately 70 percent. Determinants of occupancy rate included ownership, services offered and financing support from government. Nursing home owned by the government or non-for-profit organizations, offering abundant services, achieving financing support from the government had a probability to get higher occupancy rate.

Presenter Biography:
Professor Shixue LI is the Director of Hospital and Health Management division at Shandong University. Prof Li graduated with Bachelor in public health and M.P.H in health statistics from Shandong Medical University, and PhD in Epidemiology from Shandong University. Prof Li has years of experience working in Shandong University as Professor and Director for the Department of Social Medicine and Health Management (2000-2002), Professor and Vice-Director for the Center for Health Management and Health Policy (2002-2006), and Professor and Dean for the School of Public Health (2006-2007). Prof Li's main research interest is health management.
Is Australia ready for biosimilars?

David Lim, Julie Hepworth and Lisa Nissen

Faculty of Health, Queensland University of Technology

The biosimilars market is potentially the single fastest growing pharmaceutical sector with an estimated worth of US$67bn in global sales by 2020. This market generally refers to larger molecule, biological, protein-based pharmaceuticals which have lost its patent. This has stimulated the emergence of non-conventional pharmaceutical investors such as Fujifilm and Samsung as well as host countries such as Brazil, Mexico, China, India, South Korea, Turkey and Russia, which view biosimilars as a key macroeconomic driver of growth.

Internationally, the European Medicines Agency has led the regulation of the quality, safety and efficacy of biosimilars; however, many countries have developed their own biosimilar regulatory frameworks. Despite the similarity of these with European guidelines, differences do exist across jurisdictions and have implications for cross-jurisdictional registration and regulation.

The consideration of biosimilar regulation, however, demands attention beyond quality, safety and efficacy. The potential implications of extended patent protection, international trade and globalisation require a congruent policy approach to their regulation.

Notwithstanding the fact that Australia is a relatively small pharmaceutical market and that there are only 14 biosimilar products currently approved for use, Australia’s geographical proximity to pharm-emerging countries and its trade relation with the major pharmaceutical markets have positioned Australia in a unique position to influence international development and regulation of biosimilars. Australia’s National Medicines Policy (2000) potentially provides the foundation for a partnership approach to biosimilar regulation, minimise duplication of regulatory efforts while at the same time fostering a viable pharmaceutical industry.

Presenter Biography:
David is an early career academic with the School of Clinical Sciences at the Queensland University of Technology. His research focuses on quality use of medicines and expanded scope of health professional practice. David holds a Bachelor of Law from Notre Dame University (2011), Doctor of Public Health from Curtin University (2010), and a Master of Medical Science in Surgery from University of Western Australia (2003). David received some $400,000 in competitive research grant as chief investigator and a $3m grant as an associate for building a rural GP Superclinic. To date, David had published 64 monographs, and currently serves on the committee of the Public Health Association of Australia - Primary Health Care Special Interest Group and as a Director on the Board of the Young Australia League Inc.

Traditional dietary beliefs and child feeding practices of Chinese mothers in Australia

Wei-Hong (Wendy) Liu, Kimberley M Mallan, Lynne A Daniels

Institute of Health and Biomedical Innovation, Queensland University of Technology, 60 Musk Ave., Kelvin Grove, QLD 4059, Australia

Background: Previous studies have attributed unhealthy dietary practices of both child and adult Chinese immigrants to an ‘acculturation effect’. However, the extent to which maintaining and adhering to traditional concepts of health impacts on the dietary beliefs and corresponding child feeding practices of Chinese immigrants is poorly understood. This study aimed to understand traditional dietary beliefs and child feeding practices of Chinese mothers in Australia.

Method: A convenience sample of 254 recent immigrant (residence in Australia ≤ 10 years) Chinese mothers of children aged 12-59 months completed questionnaires to assess the extent of specific traditional dietary beliefs (12 items, on a scale ranges 1 to 10, where 1 = do not believe and 10 = very strongly believe) and the frequencies of applying certain feeding practices corresponding to their beliefs (10 items, on a scale ranges 1 to 5, where 1 = never and 5 = always). Data on mothers’ socioeconomic and immigration status were also collected. Bivariate analyses were used to examine whether there were associations between mothers’ (i) traditional dietary beliefs and child feeding practices; and (ii) traditional dietary beliefs, child feeding practices and their socioeconomic (i.e. annual family income) and immigration status (i.e. age, age at immigration, proportion of life in Australia).

Results: The overall mean score of traditional dietary beliefs of Chinese mothers was 7.8 (SD 1.3). The most strongly held traditional dietary beliefs were the balance of nutritional composition of meals (i.e. the proper ratio of meats vs. vegetables (mean 8.8, SD 1.7), and ‘fan’ (staple food) vs. ‘ts’ai’ (vegetables and meats/eggs/ﬁshes) (mean 8.8, SD 1.6), food having different properties (mean 8.7, SD 1.8), and accelerating recovery from illness by the consumption of suitable foods (mean 8.7, SD 1.7). Mothers’ dietary beliefs were signiﬁcantly associated with their child feeding practices (Phi Coefficient 0.17-0.50, p < 0.05). For example, mothers who believed strongly in food having different properties would balance foods with different properties in their child’s meals (Phi Coefficient = 0.50, p < 0.05). Mothers’ dietary beliefs and feeding practices were not inﬂuenced by their socioeconomic or immigration status.

Conclusion: Immigrant Chinese mothers held strong traditional dietary beliefs and fed their children according to these beliefs. The findings may provide evidence for the development of nutrition and health interventions aimed to promote healthy eating and positive feeding practices in this population.

Presenter Biography:
Wei-Hong (Wendy) Liu is a researcher at the Institute of Health and Biomedical Innovation at the Queensland University of Technology. She is currently working on a national project to evaluate the prostate cancer specialist nursing service. She graduated with Bachelor of Clinical Medicine, Master of Biotechnology and PhD in Public health. She has worked in various research teams on childhood obesity prevention, wound management and palliative care. Her other research interests include feeding in early childhood and immigrant health.
Evaluating, Re-imagining and Developing Culturally and Contextually Safe Ways to Protect Children from Maltreatment

Prof Bob Lonne and Dr Judith Burton

Child protection systems in many Western countries have made substantial inroads into addressing the maltreatment of children, with the general community now aware of the size and scope of harm to children and prepared to support a range of interventions by the state. Children are much better protected than they have previously been. However, judicial inquiries, program evaluations and other research has highlighted unintended consequences of child protection approaches: psychological and emotional damage for children and families, poor life outcomes for children in care, and the financial unsustainability for systems as a result of net widening. Since 2009 Australia has embraced a National Framework for Protecting Australia’s Children which promotes early intervention and prevention rather than forensic investigatory models.

In this paper we argue that robust research and evaluation are crucial to inform these reform processes and that it is essential to rethink and re-imagine the ways in which the community protects vulnerable children from maltreatment, and provides support and assistance to their families and communities. Research is also valuable for cross-national comparisons of approaches, programs and outcomes as it helps us to reconsider the ideologies, community values and assumptions that underpin our protective systems. The authors are experienced in child protection scholarship, research and practice and speak to the sorts of international collaborations that will enable critical analysis of contemporary approaches and the development of initiatives, services and systems that are culturally safe and contextually appropriate for specific communities and societies. Uncritically adopting approaches from the West can potentially lead to the development of approaches and systems that do not meet with cultural mores and values and thereby fail to build family and community strengths.

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Presenter Biography:

Bob Lonne is a social worker, and has 20 years practice experience in the frontline and in management and support roles in statutory child protection and juvenile justice in rural Queensland and Western Australia. In 2008 he was appointed as the inaugural Professor of Social Work at Queensland University of Technology, Brisbane Australia. Along with Nigel Parton, Jane Thomson and Maria Harries he authored the successful book ”Reforming Child Protection” published by Routledge in 2009. His work combines academic rigour with a hands-on understanding of the realities of practice in this complex area. He has researched, written and presented widely on contemporary issues in the human services. He is a team member of a research project investigating children’s conceptions of safety for the Royal Commission into Institutional Responses to Child Sexual Abuse.

He is currently the Discipline Leader for Social Work and Human Services and was selected to participate in Prime Minister Kevin Rudd’s 2020 Future Summit in Canberra in April 2008 in the rural stream. Professor Lonne was the National President of the Australian Association of Social Workers, which has over 6000 members, from 2005 until 2011.

Zoonoses in China

Jiahai LU, M.D. Ph.D. Professor
Department of Biostatistics and Epidemiology, School of Public Health, Sun Yat-Sen University

In China, zoonoses has been a serious problem on public health for thousands of years. So it is with china today. Many new, emerging and re-emerging diseases of humans are caused by pathogens which originate from animals or products of animal origin. A wide variety of animal species, both domestic and wild, act as reservoirs for these pathogens, which may be viruses, bacteria or parasites. Such as emerging diseases SARS, H7N9, Streptococcus suis, re-emerging diseases Human Rabies, Brucellosis, Hemorrhagic Fever with Renal Syndrome, Leptospirosis, and Food-borne parasitic zoonoses.

SARS emerged in China in 2003 and spread globally as a human pandemic. It is caused by a new coronavirus of suspect animal origin—bats. More than 8000 cases were reported worldwide, with over 5000 from mainland China, making the country the epicentre of the outbreak. The epidemic brought China virtually to a standstill, forcing the country to thoroughly review the infectious disease control policy. Since then, the Chinese government has implemented new and innovative strategies, such as a real-time monitoring system that is now serving as a model for worldwide surveillance and response to infectious disease threats. The strategy is acting excellently in the recent emerging disease H7N9, which is avian-borne posing great risk and public health. The first identified cases of avian influenza A(H7N9) virus infection in humans occurred in China during February and March 2013. According to the data from Chinese CDC, over 200 cases reported and 34% died in the hospital after a median duration of illness of 21 days. The epidemic is continuing.

With regard to reemerging diseases, Rabies has been a class II notifiable disease in China, annual cases have increased gradually since 1998. In 2004, a total of 2,651 cases were reported, an increase of >16 fold when compared with the numbers in 1996. Brucellosis is a worldwide re-emerging zoonotic disease. It remains a serious public health problem in many developing countries including China, with the incidence of human brucellosis rose substantially in China, varying from 1.41 to 2.7 per 100,000 population. These epidemics apparently have not yet peaked.

As for another group of arising zoonoses, food-borne parasitic zoonoses cause death and serious diseases in humans and animals worldwide, and are of both public health significance and socioeconomic importance. The problem is severe in mainland China, where 150 million people are suffering from food-borne parasitic zoonoses and more people are at risk. Major parasitic zoonoses transmitted through consumption of infected or contaminated meat, fish, plants and/or water. Such as Meat-borne parasitic zoonoses (Trichinellosis, Cysticercosis and taeniasis, Toxoplasmosis, Echinococcosis and Sparganosis), Fish, shellfish- and mollusk-borne parasitic zoonoses (Clonorchiasis, Anisakiasis, Paragonimiasis and pagumogonimiasis, Echinostomiasis and Angiostrongylia) and Plant- and water-borne parasitic zoonoses (Fasciolopiasis, Fascioliasis, Schistosomiasis, Cryptosporidiosis and Giardiasis).

The list of zoonotic diseases that have been documented in China could go on much longer. Other zoonotic disease agents of relevance include Ebola virus, Lassa virus, Rift Valley Fever Virus, West Nile Virus, Marburg Virus, and so on. No doubt established and emerging zoonotic diseases will continue to present many challenges for researchers and clinicians in a range of disciplines in China.
Hyperlipidemia and higher risk of blood oxidative stress for the residents living at moderate altitude areas in Southwestern China

Jing MA M.D. Professor
Department of Nutrition, School of Public Health Sun Yat-sen University

The objective of the current study was to determine the prevalence and determinants of hyperlipidemia as well as blood oxidative markers among the populations living at moderate altitude on the Yunnan-Kweichow Plateau in Southwestern China. We randomly recruited 1415 people for this study. These subjects underwent a physical examination and a comprehensive questionnaire regarding their daily habits and diets. Furthermore, blood samples from the participants were collected for assessing the lipid profile. We found that 49.3% of participants (95% CI: 46.7–51.9%) suffered from hyperlipidemia. The prevalence in men was significantly higher than that in women (53.6% vs. 44.7%, p < 0.05). The prevalence of hypercholesterolemia was 23.3% and of hypertriglyceridemia was 34.1%. Low HDL-C showed a prevalence of 17.5% and high LDL-C of 9.0%. The prevalence of hyperlipidemia also increased with age, as did the prevalence of high TC, TG, and LDL-C. Hyperlipidemic subjects tended to be older and have a higher BMI and WHR than the normolipidemic subjects in the study cohort (p < 0.05). The hyperlipidemic subjects, both men and women, tended to dine out often and consume more animal-based foods and alcohol. In addition, the hyperlipidemic men in our cohort consumed more salted food than their normolipidemic counterparts (p < 0.01). Normolipidemic subjects of both sexes were also found to prefer a vegetarian diet (p < 0.01). Alcohol consumption, a preference for meat and animal products, regular dining out, and BMI were found to be the main determinants of hyperlipidemia in women, whereas a prevalence of salted food was observed to be related to hyperlipidemia in men from the Yunnan-Kweichow Plateau subpopulation under study (p < 0.05). The average daily energy, and protein and fat intakes of the sampled subjects were also higher than the levels set by the Chinese Recommendation Nutrient Intakes (RNI), while hyperlipidemic subjects had an even higher average daily intake of total fat, cholesterol, and lower dietary fiber compared with the normolipidemic subjects in the study group (p < 0.05).

120 healthy residents, aged 25-55 years, living at the moderate altitude (MA, >2400m) region were recruited as the case subjects. Then 120 eligible inhabitants from low altitude (LA, <1100m) region were selected to match as the controls by their age, sex, body mass index (BMI) and physical activity level. Blood samples were taken for the examination of oxidative markers [Malondialdehyde (MDA)] and antioxidant indicators [superoxide dismutase (SOD), glutathione peroxidase (GPx), Vitamin A & E] and ATPase in both plasma and/or erythrocyte membrane. The total ATPase activity on the erythrocyte membrane is significantly lower in the MA group (p < 0.05), whereas the MDA content in both plasma and erythrocyte membrane is significantly elevated in the MA group (p < 0.05). Meanwhile, the ratios of GPx/MDA and SOD/MDA are markedly decreased in the MA group (p < 0.05). Besides, no remarkable differences were found in the hematological parameters, activity of antioxidant enzymes and plasma concentration of retinal & α-tocopherol.

Presenter Biography:
Ma Jing is currently a full time Professor at the School of Public Health under Sun Yat-Sen University in Guangzhou, China. Graduated from Kunming Medical University in 1986, Professor Ma soon took the practicing doctor training program at the First Attached Hospital of the same university. In 1988, Professor Ma moved to Sun Yat-sen University of Medical Science in Guangzhou, where she was one of the crew members to establish the Department of Nutrition, drafted the first edition of the teaching syllabus for undergraduates' teaching program. She was also the editor for the faculty textbook of Clinical Nutrition, the head instructor for the courses of "Basic Nutrition", "Clinical Nutrition", etc.

Over the years, Professor Ma has done wide range of researches and co-worked with lots of domestic academic organizations as well as overseas units. This include her visiting scholar's experience to Kuopio University in Finland in the year 1999 and research experience as a Scientist III at the Human Nutrition Research Center for Aging of Tufts University in USA from 2005 to 2006. Lots of domestic researches that Professor Ma supervised were projected and funded for national or provincial and ministry interests or development concerns. Her researches and teaching have been focusing on Nutrition and related diseases prevention or treatment that resulted in over 50 thesis published in domestic or overseas journals.
An Ergonomic Pilot study into the Prevalence of Musculoskeletal Disorders in the Queensland Ambulance Service

Gunther Paul, Blake Hoy

Queensland University of Technology, School of Public Health and Social Work

From 2008-09 to 2012-13, the most prevalent worker compensation claim in the Queensland Ambulance Service (QAS) was musculoskeletal injuries at 180%, with 1347 accepted claims costing AUD $7.5 million (QEID, 2013). This is consistent with literature where Denis et al. (2008) found that Musculoskeletal Disorders (MSD) was one of the front runners for workplace injuries among many professions. Manual Materials Handling (MMH) refers to the handling and movement of a material or equipment (WHSQ, 2013). The term “material” also refers to a patient. For this project, the term musculoskeletal disorder focuses on the tissues of the musculoskeletal system that are damaged via Manual Materials Handling.

In an attempt to reduce the injury rate, the QAS created a selection criterion for their workers based on the Health Related Fitness Test (QAS, 2013). This method intended to select workers based upon their fitness level, instead of selecting for their ability to perform the tasks or modify the task to better suit the worker. With injury rates remaining high, research into reducing musculoskeletal injuries began. This research produced the Patient Handling Equipment Project Report (QAS, 2005), which provided the background for the Manual Handling Program Book (QAS, 2005). The Manual Handling Program Book however inaccurately addresses musculoskeletal hazards; actions which cause or avoid injury, correct posture and motion for patient movement, muscular biomechanics, static and dynamic workload including activities causing strain, and equipment use in relation to musculoskeletal hazards.

The exploratory research aimed to better understand the ambulance service’s perception of MMH, how it relates to musculoskeletal injuries and how the service has attempted to reduce its prevalence. An analysis of the Health Related Fitness Test, Patient Handling Equipment Project Report, and the Manual Handling Program Book was conducted, highlighting required changes to better manage musculoskeletal injuries. This entailed understanding the work tasks, workloads, strains and workflow of paramedics. The research creates a starting point for further research into musculoskeletal injuries in paramedics.

Based on the significant cost related to worker compensation claims in the Queensland Ambulance Service, attempts to avoid musculoskeletal injuries through a variety of possible interventions are critical.

This study specifically looked at hazards related to musculoskeletal disorders. It identified work system deficiencies that contribute to the prevalence of musculoskeletal injuries, and interventions to avoid them in paramedics. Musculoskeletal hazards which were inaccurately understood by the service were addressed.

Presenter Biography:

Dr Gunther Paul is Senior Lecturer for Ergonomics and Occupational Health and Safety at the QUT School of Public Health and Social Work. Dr Paul also coordinates postgraduate research in the school. He studied a Masters of control engineering and PhD in ergonomics at TU Darmstadt in Germany. After working as a research associate and lecturer at TU Darmstadt for five years, he joined FORD Motor Company in 1999. At Ford, Dr Paul led an advanced research team for comfort engineering, with responsibility for seat comfort across all European vehicle programs in product development until 2005. Then transferred to Ford information technology where he managed a large 2 year consolidation project of Ford’s European data centres. In 2006 Dr Paul became Manager Research and Partnerships at Faurecia, the largest European automotive supplier, in Paris. In 2007, Dr Paul moved to Stuttgart in Germany to support DAIMLER in implementing Design for Manufacturing, Powertrain Manufacturing as a senior consultant in a project valued above 1 billion Euro. In 2009, Dr Paul was invited by AutoCRC and the University of South Australia to move to Adelaide in Australia, where he established a laboratory and research group in Ergonomics at the University of South Australia. Dr Paul has been co-chairing the International Ergonomics Association technical committee for human simulation and virtual environments since 2009. He is associate editor of the International Journal of Human Factors Modelling and Simulation, and scientific board member of the annual International Human Modelling Symposium. Dr Paul has published over 70 monographs and presented extensively at international conferences. Dr Paul’s research interest is in work system optimization, musculoskeletal disorders, occupational biomechanics, and digital human modeling.

Outdoor activity and childhood myopia

Dr Scott Read, Professor Michael Collins, Dr Stephen Vincent

School of Optometry and Vision Science at the Queensland University of Technology (QUT)

Myopia (short-sightedness) represents one of the major global causes of visual impairment. Recent evidence indicates a significant increase in myopia prevalence worldwide, with prevalence rates reaching epidemic proportions (up to 90%) in young populations, particularly in many East Asian cities. The cost associated with myopia correction, and the known association between high levels of myopia and many sight-threatening eye diseases, mean that rising rates of myopia are of significant public health concern. Although myopia is considered a condition of multifactorial aetiology, the roles of various environmental factors underlying myopia development remain a topic of active research. Previous research, primarily utilising subjective questionnaires to quantify environmental factors have highlighted a range of potentially important factors involved in myopia, such as near work, educational levels and urbanisation. Recent evidence also suggests that greater outdoor activity in childhood appears to be protective against myopia development; however the exact reason underlying this association is not fully understood. Our research utilises actigraphy in order to objectively quantify the typical daily light exposure and physical activity in myopic and non-myopic children. One hundred and two children (41 myopes and 61 non-myopes) aged 10-15 years old had measures of ambient light exposure and physical activity (sampled every 30 seconds, 24 hours a day) collected over a 2-week period during school term, using a wrist-worn actigraphy device (Actiwatch-2). Children’s light exposure and physical activity varied significantly depending upon the time of day and day of the week (p<0.0001). On average, daily light exposure was significantly greater on weekends compared to weekdays (p<0.05), and greater physical activity occurred on weekdays compared to weekends (p<0.05). Myopic children (mean daily light exposure 915 ± 519 lux) exhibited significantly lower average light exposure compared to age and gender matched non-myopic children (1727 ± 625 lux, p<0.01). No significant differences were found between the average daily physical activity levels of myopic and non-myopic children (p>0.05). In this Australian paediatric population, myopic children exhibited significantly lower daily light exposure, but no significant difference in physical activity compared to non-myopic children. This suggests the important factor involved in documented associations between myopia and outdoor activity is likely to be exposure to bright outdoor light rather than greater physical activity. The continued use of these methodologies providing objective, detailed assessments of children’s typical activities has the potential to reveal new insights regarding the environmental risk factors involved in the development and progression of myopia.

Presenter Biography:

Dr Scott Read is a Senior Research Fellow and Lecturer in the School of Optometry and Vision Science at the Queensland University of Technology (QUT). After completing his undergraduate training in Optometry in 1997, and spending 6 years in private practice, in 2006 he completed his PhD at QUT for research examining factors underlying corneal astigmatism. Dr Read’s current research focuses upon his broad interests in refractive error development and ocular imaging. In 2012, he was awarded a distinguished 3 year research fellowship (Discovery Early Career Researcher Award) from the Australian Research Council to investigate the role of outdoor activities in the development of myopia in childhood.
Fetal Neural Tube Defects: Environment, Genetics and Epigenetics

Aiguo REN, M.D. Ph.D. Professor
Institute of Reproductive and Child Health, Peking University

Neural tube defects are a group of congenital malformations that result from the failure of the neural tube to close by the 28th day after conception. Genetic factors are believed to contribute a great part, but environmental factors and the interactions between gene and environment are also very important determinants. In our completed studies, we examined maternal gene variants in multiple metabolic pathways, such as folate metabolism, xenobiotic metabolism and glucose homeostasis, etc., and the risk of fetal neural tube defects. In addition, we found that maternal exposure to polycyclic aromatic hydrocarbons (PAHs), measured by PAH concentrations in maternal blood and placental tissue and PAH-DNA adduct level in cord tissue, is associated with an increased risk of neural tube defects. Currently, we are performing whole exome sequencing using next generation sequencing technology for 16 triads of neural tube cases, in the hope that de novo or unregistered mutations associated with the development of the defects could be identified. The confirmed de novo and/or newly identified mutations will be validated in an expanded case-parent control study with samples from our biobank. In addition, in vitro experiments and zebra fish model will be used for functional studies on the identified mutations. For the epigenetic study, a plan focusing on genomic methylation profile in fetal brain and spinal cord, together with tissue concentrations of polycyclic aromatic hydrocarbons, is developing. It is expected that aberrant methylation patterns associated with environmental exposure will be identified in cases with neural tube defects.

Presenter Biography:
Aiguo Ren, MD, PhD, is the director of Institute of Reproductive and Child Health, director of Key Laboratory of Reproductive Health, Ministry of Health, and professor of epidemiology at the School of Public Health, Peking University, China. His research covers the broad range of women and children's health, but focuses on nutritional, environmental and genetic determinants of birth defects. He is maintaining a large biobank that contains a variety of biospecimens from women who had birth defect-affected pregnancies and women who delivered a healthy infants, and from affected fetuses and healthy newborns. He is also interested in the impact of environmental pollutants on human fertility. He is the editor-in-chief of the Chinese Journal of Reproductive Health, the member of editorial board of two international journals and the reviewer of a dozen of national or international journals. He is the member of The Nutrition Society, the International Society of Environmental Epidemiology, and the Teratology Society.

Association of Physical Activity and Polymorphisms in FGFR2 and DNA Methylation Related Genes with Breast Cancer Risk

Zefang REN, M.D. Ph.D. Professor
Department of Biostatistics and Epidemiology, School of Public Health, Sun Yat-Sen University

Purpose: Physical activity, a protective factor for breast cancer, increases the level of DNA methylation. Fibroblast growth factor receptor 2 (FGFR2), a confirmed breast cancer susceptibility gene, is predisposed to be methylated. Therefore, DNA methylation related genes, such as methylenetetrahydrofolate reductase (MTHFR), methionine synthase (MTR), and DNA methyltransferase (DNMT), together with physical activity and FGFR2, may interact with each other to effect breast cancer risk.

Methods: A total of 839 incident breast cancer cases and 863 age-matched controls from Guangzhou, China were included in this study. We used questionnaires to assess physical activity in metabolic equivalent (MET)-hours per week per year and a matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) mass spectrometry platform to ascertain genotypes. Odds ratios (OR) and 95% confidence intervals (CI) were calculated from logistic regression models.

Results: Exercise activity and FGFR2 rs2981582 were confirmed to be associated with breast cancer risk, and were found to significantly interact (P for multiplicative and additive interactions = 0.045 and 0.021, respectively). Women who had CT/TT genotypes of FGFR2 rs2981582 and experienced exercise activity < 3 Met·h·wk⁻¹·yr⁻¹ had significantly increased risk (OR = 3.15, 95% CI = 2.28-4.35) compared to women with CC genotype and ≥ 3 Met·h·wk⁻¹·yr⁻¹. There was also a significant interaction between FGFR2 rs2981582 and MTHFR rs1801133 on breast cancer risk (P for multiplicative and additive interactions = 0.039 and 0.023, respectively).

Conclusion: We found both a gene-environment (FGFR2-exercise activity) and a gene-gene (FGFR2-MTHFR) interaction on breast cancer risk. Our results suggest that environmental factors, such as physical activity, may be able to counteract genetic susceptibility to breast cancer.

Presenter Biography:
Dr. Zefang Ren received his M.S. and Ph.D. from Sun Yat-sen Medical University in preventive medicine. Since then, Dr. Ren has been working as a teacher and researcher in the School of Public Health. He once worked at Vanderbilt University as a Postdoctoral Fellow (2002 – 2005) and at Guangzhou CDC as cancer registry staff (2006).

Dr. Ren focuses on cancer (breast and ovary) epidemiology, exploring etiology [Life styles, environments (metals, virus, et al), and genetic factors] and survival factors. He has established a breast cancer case-control population of 1500 cases and 1500 controls and a survival cohort of more than 3000 patients. He is PI for five studies funded by National Natural Science Foundations of China (NSFC), including a joint grant of NSFC and NIH. He has published more than 100 papers in related fields.
A Participatory Action Research approach to explore workplace health promotion strategies to address SNAPO (Smoking, Nutrition, Alcohol, Physical inactivity and Overweight/obesity) risk factors in construction workers.

Expertise: The project team consists of a robust group of experts in settings-based health promotion, Participatory Action Research, program planning and evaluation, occupational health and safety, behavioral psychology and the construction industry. The team has outstanding experience and a well-established track record in practical, community based health promotion strategies for workers and the proven ability to conduct large scale, multidisciplinary and translational applied research and evaluation interventions.

Background: There is a dearth of evidence about the effectiveness of workplace interventions aimed at the reduction and control of modifiable risk factors such as Smoking, Nutrition, Alcohol, Physical inactivity and Overweight/obesity (SNAPO). These risk factors have been identified as being responsible for a large number of chronic diseases, most notably lung cancer, type 2 diabetes and cardiovascular disease. The World Health Organisation (WHO) describes heart disease, stroke, cancer and other chronic disease as an imminent epidemic which will account for the greatest toll in death and disability.

Aim and objectives: The aim of this project is to identify effective health promotion and early intervention and prevention strategies to reduce SNAPO risk factors for chronic disease in construction workers.

Objectives:

1. Establish the prevalence of SNAPO risk factors in construction workers.
2. Implement workplace-based interventions through changes to policy context, workplace culture and the physical environment.
3. Investigate possible links between improved health status and organisational health, safety and productivity outcomes.
4. Provide recommendations to implement sustainable workplace health promotion strategies.

Methodology: The underpinning framework is Participatory Action Research (PAR). The primary purpose of PAR is to produce practical knowledge which is useful to people in real world contexts. PAR is a focused, ‘heads together’ way of thinking to encourage processes which stimulate ‘new’ ideas and different ways of doing things16. This project will be underpinned by the Program Logic Model (PLM) which is a well-recognised model of program planning and evaluation in health promotion.

Methods: This project will use qualitative and quantitative methods for data collection, analysis and interpretation. The sampling frame will be workers employed by construction company partners. The sample will include identified high risk and hard-to-reach workers: technicians/trade workers, machinery operators/drivers and labourers. The sample size will include a diversity of urban, metropolitan, regional or rural worksites. The project will employ information technology strategies, such as social media, SMS, MMS, at worker and organisational level in three categories – policy context, workplace culture and physical environment. Process, impact and outcome evaluation indicators will be used to measure the success of this project17.

Presenter Biography:

Dr Sendall's area of expertise is settings based health promotion, in particular, workplace health promotion. Marguerite was a co-investigator on the Queensland Health Outdoor Worker's Sun Protection Project worth $900,000 over 4 years and contributed specialist knowledge and skills in workplace health promotion and qualitative research. This applied research project investigated the combination of health promotion strategies for sun protection in high risk outdoor workers.

Dr Sendall's leadership skills have seen her lead a research team to win a successful competitive grant tender. The Queensland Transport Workplace Health Intervention project (Truckies), funded by the Department of Justice and Attorney-General (DJAG), is worth $120,000 over 2 years to investigate SNAPO (smoking, nutrition, alcohol, physical activity and obesity) risk factors for truck drivers. As Chief Investigator and Project Manager, Marguerite designed and development the grant proposal in collaboration with the research team, manages the project and is actively engaged in the implementation. Currently, Dr Sendall is also a Principal Investigator on a commercial research project worth $40,000 over 12 months to evaluate a wellbeing program offered to mine site employees.

Dr Sendall's high-quality real world applied research is based on Participatory Action Research (PAR). PAR engages and empowers end users (workplaces and workers) to undertake realistic, effective and sustainable strategies to understand the social and cultural context of health behaviour change in the workplace. Marguerite's research has a focus on prevention and the use of technology for better health outcomes and actively collaborates with end-users.

Promoting Resilience with the Resourceful Adolescent Programs

Professor Ian Shochet

Queensland University of Technology (QUT)

Adolescent depression and mental health is of increasing national and international concern. Approximately one in five teenagers will develop depression during their teenage years, which can have significant adverse outcomes across multiple life domains and into the future. In addition, many adolescents do not receive adequate treatment for mental health problems. Early intervention and prevention is vital to promote the wellbeing of adolescents and address key risk and protective factors for the development of depression. Resilience research suggests that the ability to cope with challenges and adapt to adversity can be promoted, and that by enhancing resilience, adolescents can be placed on a more positive developmental trajectory.

Professor Ian Shochet will introduce the Resourceful Adolescent Programs (RAP), his suite of strength-based interventions designed to promote resilience in adolescents and prevent the development of depression and other mental health difficulties. These carefully constructed programs draw on research for the effective treatment for adolescent depression and known psychosocial risk and protective factors, at the level of the individual, family, and school. Together these programs build the coping skills of adolescents themselves (RAP-A), promote a more harmonious family environment via a parent program (RAP-P), and enhance school connectedness through a program for teachers (RAP-T). Shochet will provide a rationale for implementing such multi-level interventions, and will discuss the underpinnings of the programs – an innovative combination of interpersonal approaches and Cognitive Behavioural Therapy (CBT). RAP-A has been extensively evaluated through a number of randomised control trials and shown to be an effective and efficacious program for preventing adolescent depression. A brief summary of the research examining the programs will also be presented.
Mortality of esophageal cancer in Shandong, China: Consistent spatial pattern despite a markedly decrease over the last 40 years

Jiandong Sun, PhD 1, Michael Kimlin, PhD 1, Xiaolei Guo, MPH 2, Fuzhong Xue, PhD 3, Aiqiang Xu, PhD 2,3

1 School of Public Health and Social Work, Queensland University of Technology, Australia, 2 Shandong Centre for Disease Control and Prevention, Shandong, China, 3 School of Public Health, Shandong University, Shandong, China

Background: Esophageal cancer is one of the most common cancers in China. However, its spatial and temporal trends have not been well understood. Recently, Shandong Centre for Disease Control and Prevention (CDC) has expanded the Disease Surveillance Point (DSP) system to the whole province (96 million people in 157 thousand Km²) collecting all-population mortality data. This analysis examines the spatial pattern and temporal change in the mortality of esophageal cancer in this population over the last 40 years.

Methods: From the 1970-1974 Cause of Death Survey Report. Age-adjusted (using the 1964 China population) sex-specific mortality rates of esophageal cancer were calculated for each of the 140 counties/cities/districts. We used SatScan (v9.3) assuming a discrete Poisson distribution of the number of deaths weighted by population sizes to identify most likely clusters with highest and lowest esophageal cancer mortality for 1970s and 2010s, respectively. The R software was used to generate maps for visualisation.

Results: In Shandong in 2011-13, esophageal cancer caused 45,805 deaths (16.0 deaths per 100,000 persons-years), accounting for 2% of all deaths and 9% of all cancer deaths. The age-adjusted rate varied widely from county to county (0.4 to 29.1) with an average of 10.1 deaths per 100,000 persons-years. A cluster of highest rate was detected in the central inland area including 10 counties with a relative risk (RR) of 3.8 compared to the provincial average. The two coastal prefectures (16 counties) at the tip of Shandong Peninsula had the lowest rate (RR=0.3). Compared to 1970s' data (adjusted death rate=12.6), the overall mortality decreased by 20% and a drop was observed in both males and females, and in almost all counties (94%, n=131). However, the clusters with the highest and lowest mortality rates in 1970s were virtually identical to the clusters observed in 2010s.

Conclusions: Despite a markedly decrease in the mortality of esophageal cancer in Shandong, the spatial pattern of mortality rates remained unchanged over the past 40 years, with the highest mortality in the central inland region but the lowest in the eastern coastal area. The reasons for the large and consistent difference between the two clusters (RR=13) need to be further explored.

Presenter Biography:

Dr Jiandong (Hansen) Sun is currently working with the AusSun Research Group at QUT as a Postdoctoral Research Fellow (Epidemiology), with a particular interest in cancer epidemiology and major risk factors (such as UV radiation). He obtained his PhD in Epidemiology at QUT in 2012 and a Master’s Degree in Epidemiology and Biostatistics at Shandong University in 2008. He has previously worked as an Epidemiologist and Biostatistician in a number of public health agencies in China and Australia.

Over the past 22 years of practice and research, Dr Sun has published 40 journal articles or books covering a wide range of public health topics, such as infectious disease prevention and control, cancer epidemiology, death statistics, mental health and social and environmental determinants of health, and has developed comprehensive skills in basic and advanced epidemiology and biostatistics.

Dr Sun has a strong connection with Chinese researchers through earlier work and recently through collaborative research projects. He is presently working with US NIH and China CDC to identify risk factors for common cancers among Chinese mothers and their adolescent children, and with Shandong CDC and Shandong University to indentify types of cancers with highest disease burden and their risk factors.
A study on the pupil’s smoke exposure and its influence factors in Shandong

Tong SUN1, Xia WEI1, Dianmin KANG1, Peijing ZHOU1, Fengxia LI1, Janet HOU1
Shandong Center for Disease Control and Prevention

Objectives
To learn the primary school students’ second-hand smoke (SHS) exposure status in Shandong province of China and analyze the main influence factors so as to provide scientific information for the coming possible interventions.

Methods
As a cross-section survey, a multi-stage stratified-cluster random sampling method was used to choose 3 cities in the west, central and east part of Shandong province. Then 2 primary schools in the urban area and 2 in country area were sampled in each city. 2-3 classes in grade 3-6 in each school were sampled. At last 5,861 students as well as their family members were surveyed by self-compiled anonymous questionnaire. A database was established by software Epidata and demographic characteristics, tobacco exposure status, influence factors and tobacco related knowledge level were analyzed by SPSS16.0 statistical software.

Results
The SHS exposure rate of the students in Shandong province was 49.7% ($n=5,861$). Logistic regression analysis showed that the main risk factors for the students’ SHS exposure were multiple-generation family and separate generation family, only-one child family, parents with less education and different areas. The main smokers in the families were fathers and grandfathers. Most of the smokers had smoked more than 10 years (43.4% of the fathers and 74.0% of the grandfathers). 66.78% of the fathers and 61.56% of the grandfathers smoked 1 to 10 cigarettes per day. 24.3% and 74.0% of the smokers answered that they smoked “anywhere” and “in living room” respectively, at home.

Conclusions
The primary school students’ SHS exposure rate was fairly high in Shandong province. Some family factors played an important role. It suggest that schools as well as families and communities should carry out some interventions targeted at the students’ adult family members and offer quitting help so as to protect the students from the second-hand smoke.

Presenter Biography:
Dr Tong SUN is a professor doctor and the director of Department of Health Education, Shandong Provincial Center for Disease Control and Prevention, China. He is also the Vice-chairman of Committee of Health Education of Shandong Preventive Medical Association, the Executive Member of Chinese Association of Health Promotion and Education. His main interesting research area covers tobacco control and health education and promotion.

Current Health Culture Constructions and Considerations in China

Chunling SUN, Ph.D. Professor
Shandong Academy of Medical Sciences

Chinese government plays great importance to culture construction for the development of the Socialism with Chinese characteristics. “Promoting the development of socialist nation with strong culture” has been proposed by our government as a national policy. Culture is seen as the bloodstream of the nation, the representation and symbol of national strength, and the spiritual home of the Chinese people. Health culture construction is an important constituent part of the general socialist culture construction. In this policy environment, health culture construction has been adopted as a tool for institutional and regional development of social health by hospital leaders and local governments. Based on the political and social characteristics of China, this article aims to provide an insight into how to understand the approach to health culture construction for Chinese hospital managers and government health officials. I will firstly conceptualize the notions of culture construction and health culture construction, trying to clarify their definitions in order to lay a solid conceptual basis for the following discussion. Then I will provide a discussion on the inheritance and development of health culture, presenting the historical development of the implications of health culture in China. The third part is a detailed analysis on the significances of health culture construction, which will claim that health culture construction is, in the necessity of people for their health service, in the necessity of market competition, the necessity for harmonizing the doctor-patient relations, and the necessity for self-examination. Then, I will discuss the major issues in health culture constructions, which include lacking of attention, insufficiency of systematic theorizing, insufficiency of innovation spirits, and unsustainable consistency. In the last part I will give 5 suggestions for the enforcement of cultural construction, which are adhering to the principle of big culture pointing direction and small cultures blooming together, building the health culture through joint efforts with research institutions including higher education institutions, paying attention to the development of health culture professionals, and fostering a social atmosphere that is supportive to health culture development.

Presenter Biography:
Prof. Chunling Sun is now the Vice President of the Shandong Academy of Medical Sciences at Jinan, Shandong Province, China. She obtained her PhD in Social Medicine and Health Management from Shandong University, China in 2007. She has been a visiting scholar at Karolinska Institute, University of Toronto, and University of Queensland. She is currently visiting Griffith University as a visiting fellow on a 6-month scholarship from the Shandong Provincial Government. Prof. Sun has written extensively and chaired or co-chaired many research projects. Her major research interests are medical personnel management, medical personnel education, medical information management, medical research internationalization, and health culture, etc. She is a master student supervisor at the School of Medicine and Life Sciences of SAMS. She is also the Vice President of the Shandong Health Care Science and Technology Association.
Sleep, Eat Play: Childcare as settings to establish lifetime foundations of physical and emotional health
Karen Thorpe, Sally Staton, Cassandra Pattinson, Simon Smith

Early childhood has been recognized globally as a target for preventative health strategies. Health promotion and intervention programs at the start of life can set positive life trajectories that avert the cost of later physical and mental health problems and their remediation. Such strategies make human, social and economic sense. In keeping with this evidence, the Australian government’s approach to chronic disease prevention has included a focus on a healthy start to life and implementation of public health programs centred in early childhood settings. Childcare settings are of particular importance for three key reasons:

1. Childcare is attended by the majority of children: In Australia over a million children attend childcare while their parents work. By age 4 almost all children attend.

2. Trained early childhood educators can play a significant role for teaching healthy behaviour: Childcare settings are attended across the formative years when children are learning self-regulation skills that impact on children’s physical well-being (e.g. making appropriate food choices) and emotional well-being (e.g. learning to get on with others).

3. ECEC services present strategic sites for universal health promotion. They capture the majority of the early childhood population across the period 0-5 years and are central sites for dissemination of timely information to support positive family health and education behaviours.

This presentation will outline our current work in promoting healthy sleep, nutrition and exercise behaviours in childcare settings. We focus on the studies of sleep behaviour and present an overview of the multiple methodologies our team has been applying in examining sleep health in childcare. These include physiological measurement, biological measurement, observation and epidemiological techniques to provide data on both the effects of childcare on children’s health and the potential to promote positive sleep health. We outline the collaborations between exercise, nutrition, sleep and early development specialists and the opportunities for collaborative work.

Climate Change Challenge: Identifying, forecasting and reducing impacts on population health
Professor Shilu Tong, Dr. Wenbiao Hu
School of Public Health and Social Work, Institute of Health and Biomedical Innovation, Queensland University of Technology

There has been an increasing interest in the relationship between climate and health as global climate change proceeds. Impacts of climate change on human health are already unfolding. Climate change would likely affect population health in different ways and the climate impacts seem to vary with different spatial and temporal scales. This emerging “global” environmental hazard poses an important challenge to scientists and decision makers in identifying, forecasting and proposing ways of ameliorating the health risks of climate change. There is increasing consensus that climate change is the greatest threat to global health in the 21st century. This presentation will illustrate this challenge using some examples, and will discuss how we can set the ground for interdisciplinary and collaborative thinking and planning, and take up this formidable challenge.

Presenter Biography:
Prof. Shilu Tong is a NHMRC Senior Research Fellow in the School of Public Health and Social Work, Institute of Health and Biomedical Innovation, Queensland University of Technology. He leads a research program on the assessment of the potential impact of ecosystem change on population health, which is partly funded by NHMRC, ARC, Queensland Centre of Climate Change of Excellence, Queensland Health, Departments of Emergency Services, Natural Resources and Water, and Environmental Protection Agency. Prof. Tong has been awarded 11 (7 ARC and 4 NHMRC) national competitive grants. He has had over 200 refereed publications. His work has been published in highly prestigious scientific, medical and epidemiological journals (e.g., N Engl J Med, Lancet, JAMA, BMJ, Environ Health Persp, Am J Epidemiol, Int J Epidemiol, Epidemiology, Environ Int and Nature Climate Change). Currently, he is Associate Editor, American Journal of Epidemiology, and Editorial Board member, Environmental Research and PLoS ONE.
The translation of an evidence based childhood obesity management program from RCT to universal care.

Vidgen H, Croyden D, Daniels L

Queensland University of Technology

The World Health Organisation has identified childhood overweight and obesity as one of the most serious health challenges of our time (WHO, 2014). The global prevalence of overweight and obesity in children under five years was estimated at 42 million in 2010 (WHO, 2014). At a national level, measured height and weight data from the 2011-12 Australian Health Survey indicates that 25.3% of children aged 5-17 years were overweight or obese, comprised of 17.7% overweight and 7.6% obese (ABS, 2013). Dietary factors and high BMI are now the first and second highest risk factors contributing to the Burden of Disease in Australia (IHME, 2014). Children who are obese as children are likely to remain that way as adults (NHMRC, 2013).

Few Australian programs have demonstrated effectiveness in addressing overweight and obesity in children. The PEACH (Parenting Eating and Activity for Child Health) program is one of the few programs that has (Golley et al 2007). It is a group based healthy lifestyle program for families of primary school aged children who are overweight or obese. The PEACH program has a long research history which includes a NHMRC-funded randomised controlled trial which demonstrated its effectiveness (Golley, Magarey, Baur, Steinbeck, & Daniels, 2007; Golley, Perry, Magarey, & Daniels, 2007; Magarey, Hartley, Golley, Perry &Daniels; 2010; Magarey et al 2011). The RCT demonstrated that the PEACH program was successful at lowering the relative BMI of enrolled children, which was sustained two years after the program ceased. It is not only consistent with the NHMRC Clinical Practice Guidelines for the Management of Overweight and Obesity in Adults, Children and Adolescents (2013), it has informed them. These factors have resulted in the upsizing and statewide roll out of the program being funded by the Queensland Government. This is the largest State Health Department investment in a childhood obesity management program. The project will determine critical factors to the universal availability of PEACH through its pilot delivery to 1400 families throughout Queensland. This presentation will describe the translation of PEACH from a randomised controlled trial to its statewide implementation, describing key learnings to date.

Presenter Biography:

Helen Vidgen finished high school with a strong interest in food and nutrition and so studied a Bachelor of Applied Science in Home Economics at QUT. A few years later she added a Graduate Diploma in Nutrition and Dietetics and has spent most of her career working as a nutritionist.

Helen Vidgen's first nutrition job was as the sole clinical dietitian in a rural hospital. From there she progressed along the continuum of care from clinical roles in a tertiary hospital, to community nutrition and executive officer roles at Nutrition Australia and finally into public health as one of Queensland Health's first public health nutritionists. She remained at Queensland Health for twelve years working in their corporate office on policy and planning, and at the service delivery level in the management of nutrition teams. She left to in 2011 to complete her PhD.

Helen is currently a Senior Research Fellow at the School of Exercise and Nutrition Sciences at the Queensland University of Technology where her work focuses on public health nutrition, particularly the prevention of childhood obesity.

Molecular Mechanism on the Cinnabar's Biotransformation and Neuropharmacological Effects

Qi Wang a, Xiaoda Yang b, Xiuwei Yang b, Kui Wang b

a Department of Toxicology, School of Public Health, b State Key Laboratories of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University

Cinnabar as a traditional Chinese medicine has been widely used in many Asian countries. It is, however, known to be toxic especially when taking overdose. Up to date, studies on the mechanism of biotransformation and activity of cinnabar were still insufficient.

Cinnabar is a mineral containing more than 96 % mercuric sulfide (HgS). It is almost insoluble in water. Under simulated intestinal and gastric conditions, the chemical species dissolved from cinnabar include mercuric polysulfides (i.e. HgS₂(OH)₂ and Hg₃S₂Cl₂). The apparent permeability coefficient (Papp) of mercuric polysulfides in flora medium, and the simulated results showed that the products by incubating cinnabar with Na₂S were mercuric polysulfides. These results showed that under gut flora conditions cinnabar could be transformed into mercuric polysulfides rather than methylmercury. Our work provides evidences of nontoxic transformation of cinnabar in the human intestinal bacteria.

As for the toxicity of cinnabar, one important assumption is that cinnabar may be transformed into highly toxic methylmercury by gastrointestinal flora. There is no evidence in humans to support this assumption. We investigated the biotransformation of cinnabar (HgS) in the culture of human intestinal bacteria. No methylmercury was detected by both GC-ECD and GC-MS, which suggest that cinnabar (HgS) is not methylated in the human intestine. A small amount of soluble mercury was found to be released in the flora medium of HgS or cinnabar by CV-AAS. The XANES analyses revealed that polysulfides exist in the flora medium, and the simulated results showed that the products by incubating cinnabar with Na₂S were mercuric polysulfides. These results showed that under gut flora conditions cinnabar would be transformed into mercuric polysulfides rather than methylmercury. Our work provides evidences of nontoxic transformation of cinnabar in the human intestinal bacteria.

We explored the neuropharmacological mechanism of cinnabar. The anxiolytic effect of cinnabar on anxiety-like behaviors in mice was investigated using the elevated plus maze test. The changes in the levels of monoamine neurotransmitters and their metabolites and the activity of monoamine oxidase (MAO) in the brain of mice were determined. The results indicate that cinnabar possessed anxiolytic effects after chronic administration (p.o.) at effective doses in association with the declined brain serotonin (5-HT) level. The cinnabar showed no effects on 5-HT metabolism pathway. The results suggested the potential importance of the brain serotonergic system. The 5-HT metabolism pathway may be not involved in the anxiolytic effects of cinnabar.

Presenter Biography:

Dr. Wang is a professor of Toxicology at Peking University. Her research interests include: Toxicology of Traditional Chinese Medicine (TCM), safety of TCM containing mercury, CYP Metabolism and nephrotoxicity induced by constituents of TCM (structure-activity relationship), cell-based approach for TCM during early toxicity screening; Analytical Toxicology, detection of exogenous harmful residues (heavy metals, pesticides) in TCM, measurement of novel biomarker for oxidative stress, DNA oxidative damage; Ecotoxicology, focus on the effects of air pollution (sand dust- or plant-derived) under natural environment on human health. She received the China Association for Environmental Sciences Award for Excellence in Environmental Science Research in 2010.
The role of university research centres in building road safety capacity: Implications for China

Professor Barry Watson, Dr Judy Fleiter, and Dr Mark King
Centre for Accident Research and Road Safety-Queensland (CARRS-Q), School of Psychology and Counselling, Faculty of Health, Queensland University of Technology, Brisbane, Australia

In recent decades, highly motorised countries, such as Australia, have witnessed significant improvements in population health through reductions in fatalities and injuries from road traffic crashes. In Australia, concerted efforts have been made to reduce the road trauma burden since road fatalities reached their highest level in the early 1970s. Since that time, many improvements have been made to reduce the trauma burden (e.g., road and vehicle design, road user education, traffic law enforcement practices and enforcement technologies). While road fatalities have declined significantly since the mid-1970s, road trauma remains a serious public health concern in Australia.

China has recently become the largest car market in the world (Ma, Li, Zhou, Duan, & Bishai, 2012). This rapid motorisation has been accompanied by substantial expansion of the road network as well as a large road trauma burden. Road traffic injuries are a major cause of death in China, reported as accounting for one third of all injury-deaths between 2002 and 2006 (Ma et al., 2012). In common with Australia, China has experienced a reported decline in fatalities since 2002 (see Hu, Wen & Baker, 2008). However, there remains a strong need for action in this area as rates of motorisation continue to climb in China.

In Australia, a wide range of organisations have contributed to the improvements in road safety including government agencies, professional organisations, advocacy groups and research centres. In particular, Australia has several highly regarded and multi-disciplinary, university-based research centres that work across a range of road safety fields, including engineering, intelligent transportation systems, the psychology of road user behaviour, and traffic law enforcement. Besides conducting high-quality research, these centres fulfill an important advocacy role in promoting safer road use and facilitating collaborations with government and other agencies, at both the national and international level. To illustrate the role of these centres, an overview will be provided of the Centre for Accident Research and Road Safety-Queensland (CARRS-Q), which was established in 1996 and has gone on to become a recognised world-leader in road safety and injury prevention research. The Centre’s research findings are used to provide evidence-based recommendations to government and have directly contributed to promoting safer road use in Australia. Since 2006, CARRS-Q has also developed strong collaborative links with various universities and organisations in China to assist in building understanding, connections and capacity to assist in reducing the road trauma burden.

Presenter Biography:
Professor Barry Watson has over 30 years’ experience in road safety research and policy development and is an international expert in illegal and high-risk road user behaviour, having undertaken extensive research into issues including speeding, drink driving, driver licensing/education, young driver safety, and traffic law enforcement. He is an invited member of national and international advisory committees and boards and has over 250 road safety publications.

He delivered a Road Safety Management program at the Institute of Psychology, Chinese Academy of Sciences (Beijing 2006) and lectures to staff and students of the Zhejiang Police College in Hangzhou, China (2006, 2012, 2013) and Brisbane (2013). In October 2013, Prof Watson was awarded the West Lake Friendship Award for Foreign Experts by the Vice-Governor of the People’s Government of Zhejiang Province, China in recognition of the ongoing relationship and collaborative initiatives in road safety undertaken since 2006. He was awarded an Honorary Professorship at Zhejiang Police College in 2013.

The role of health law in health services research

Professors Ben White and Lindy Willmott, Directors
Australian Centre for Health Law Research, Faculty of Law, QUT

Effectively tackling public health challenges and other health-related dilemmas requires engagement with health and medical law perspectives. Regulation, whether it be law, ethical guidelines or policy, can shape behaviour and help promote the achievement of designated policy objectives. However, regulation can also be associated with adverse health impacts, for example where fear of law and what it is perceived to require can lead to distortions of good medical practice and the poor functioning of health systems.

Health and medical law strives to understand how regulation influences health systems so as to promote the benefits that law and policy can bring but also reduce their potential adverse impacts.

QUT’s Australian Centre for Health Law Research is currently undertaking a range of health law related projects in the fields of end of life, children’s health and the beginning of life, and governance and health regulation. This presentation reports on some of these projects in the end of life field with a particular focus on how law and policy affects decision-making at the end of life.

Presenters Biography:
Ben White is a Professor in the Faculty of Law at QUT and Director of the Australian Centre for Health Law Research. Prior to joining QUT, he worked as an associate at the Queensland Supreme Court and at Legal Aid Queensland before completing his doctorate on law reform at the University of Oxford on a Rhodes Scholarship. He was also a full-time and then part-time Commissioner of the Queensland Law Reform Commission when it reviewed the state’s adult guardianship laws. Professor White researches in the area of health law with a focus on end of life decision-making. He is a co-editor of Health Law in Australia (2nd ed.; Thomson, 2014) and is undertaking three Australian Research Council funded interdisciplinary projects examining various aspects of end of life decision-making and advance care planning.

Lindy Willmott is a Professor with the Faculty of Law at the Queensland University of Technology and a Director of the Australian Centre for Health Law Research at QUT. She researches in the area of health law, particularly end-of-life issues and is currently undertaking empirical research on end of life decision-making as part of two Australian Research Council funded linkage projects. She is also a chief investigator on a National Health and Medical Research Council funded Centre of Research Excellence on End of Life. Lindy served for many years as a part-time member of the Queensland Civil and Administrative Tribunal (formerly the Guardianship and Administration Tribunal). Lindy is also the author of many text books in a range of areas and is one of the editors of Health Law in Australia.
Anthocyanin supplementation improves HDL-associated paraoxonase 1 activity and enhances cholesterol efflux capacity in subjects with hypercholesterolemia

Min Xia M.D. Ph.D. Professor
Department of Nutrition, School of Public Health, Sun Yat-sen University

Paraoxonase 1 (PON1), an enzyme associated with high-density lipoprotein (HDL-PON1), is reported to have antioxidant and cardioprotective properties. The aim of the present study was to investigate the effects of anthocyanins on the HDL-PON1 activity and cholesterol efflux capacity in hypercholesterolemic subjects. A total of 122 hypercholesterolemic subjects were given 160 mg of anthocyanins twice daily or placebo (n = 61 of each group) for 24 wk in a double-blind, randomized, placebo-controlled trial. Participants and investigators were masked to treatment allocation. Anthocyanin consumption significantly increased HDL cholesterol and decreased LDL cholesterol concentrations compared with placebo (P < 0.018 and P = 0.001, respectively). Anthocyanin supplementation also increased the activity of HDL-PON1 compared with placebo (P = 0.001). Furthermore, cholesterol efflux capacity was increased more in the anthocyanin group (20.0% increase) than in the placebo group (0.2% increase) (P < 0.001). The negative correlations established between HDL-PON1 activity and levels of lipid hydroperoxides associated with HDL confirm the relationship between PON1 activity and lipid peroxidation of lipoproteins. Furthermore, a strong positive correlation was noted between increased HDL-PON1 activity and improved cholesterol efflux capacity both before and after adjustment for HDL cholesterol and apolipoprotein AI in anthocyanin-treated subjects (both P < 0.001). Inhibition of HDL-PON1 activity strongly prevented the antioxidant ability of HDL and attenuated the cholesterol efflux capacity of subjects from anthocyanin group. Our observations suggest that the alterations of PON1 activity by anthocyanin observed in hypercholesterolemic HDL reflect a shift to an improvement of cholesterol efflux capacity of HDL and may provide a link between anthocyanin and cardioprotective effects.

Presenter Biography:
Min Xia is Professor of Nutrition and Food Hygiene and has been associate Dean of School of Public Health since 2013. His particular field of interest is in the association between dietary factors or nutritional status and risk of several chronic diseases, including obesity, type 2 diabetes and coronary heart disease, especially the molecular pathogenic mechanisms of atherosclerosis and its prevention and treatment through dietary intervention.

He has been invited as regular reviewer of many scientific journals and has published a lot of scientific research papers in highly prestigious journals. One of his paper was awarded “the paper of influence in cardiovascular research” in China in 2006. As a vital member of Guangdong Provincial Key Laboratory of Food, Nutrition and Health, Prof. Xia has been in charge of many major scientific research projects.

Prof. Xia pursued his BS degree in Preventive Medicine in Anhui Medical University. And then, he followed his postgraduate research training at Sun Yat-Sen University and was awarded the PhD degree in 2006. Since then, he has been employed as research staff of Sun Yat-sen University and in 2012, he was appointed Professor of Nutrition and Food Hygiene.

Professor Min Xia has won several awards in recent years. Due to his great contribution to cardiovascular research, he was honored Dingying Technology Award in 2011.

Development of ageing policies and aged-care and pension systems in China

Emily (Chuanmei) You1,2 and Christian A Gericke1,3

1 The Wesley Research Institute, Brisbane, Australia, 2 University of Queensland, Brisbane, Australia, 3 Queensland University of Technology, Brisbane, Australia

Population ageing emerged as a policy issue in China around the year 2000. In 2013 people aged 60 and over represented 14.9% of the total population or 1.36 billion. Typical features of China’s population ageing are rapid and significant urban-rural and regional differences that precede economic development and support systems, in particular pension and aged care systems. Population ageing, accompanied by a decrease in the working age population (in number and proportion), will impact on China’s future economy and ageing supporting systems.

The Chinese government instituted over 30 important ageing policies and laws during the past two decades, such as the Law of Protecting Older Peoples’ Rights and Interests. These have largely contributed to two major achievements. First, a nationwide pension system (including three social pension insurance systems for enterprise employees, urban residents and rural residents respectively, and a public pension insurance system for civil servants and public sector employees) was established in 2012, aiming to enrol 95% of the total population by 2020. Second, the aged care system (including family support, public residential and community aged care, and private residential care) has increased its service capacity by providing more aged-care beds and community and home aged care services. Moreover, many provinces established systems to subsidise the oldest-old populations’ daily living or aged care services.

However, the development of ageing policies has been lagging behind that of population ageing. Within the pension system, there are huge differences among different pensions (e.g. about $360 per month for an enterprise employee vs. about $15 per month for a rural resident—a 24-fold difference) and between regions in their financial conditions (e.g. 14 provinces faced significant deficits in 2011). A nationwide aged care system has still not been established. Limited aged-care beds (19.1/1000 older population) and community and home care services, poor care quality, and a lack of qualified staff cannot meet older people’s needs. The traditional family support functions are diminishing due to the “one-child” policy, a change of younger people’s mindset resulting in the “hollow nest” phenomenon, and the rise in older people’s medical care expenditures.

In the future, efforts should be made to develop aged care legislation to underpin the establishment of a nationwide aged care system, reforming the pension system to reduce the gaps discussed above, encouraging the family support model particularly in rural areas, and conducting research to inform policy-making to adequately support older people.

Presenter Biography:
Emily You is a Postdoctoral Research Fellow at the Wesley Research Institute and an Honorary Research Fellow in the Centre for Advanced Imaging, the University of Queensland. She commenced her PhD at the Centre for Health Policy, The University of Melbourne in October 2010. She has recently submitted her PhD thesis entitled “Case Management Practice, Goals and Outcomes in Community Aged Care: Perspectives of Case Managers in Australia.” During doing her PhD, she worked as a part-time research assistant for the National Ageing Research Institute in Melbourne Australia for over one year.

Emily completed her Master’s degree (Social Medicine and Health Service Management) in July 2008 in China. She worked as a full-time research assistant for the Centre for Health Policy and Management, Chinese Academy of Medical Sciences in Beijing China between September 2008 and October 2010. Her research areas included health services, health policy and health systems. In 2010, Emily received the “Chinese Medical Science Award” due to her contribution to community health services research in China.

During the past five years, Emily published three peer-reviewed English papers about China’s community health services and two systematic reviews about the effects of case- managed community aged care.
A new model of integrated primary-secondary care for complex diabetes in the community

Jenny Zhang1, Letitia Burridge1, Maria Donald1, Anthony W Russell1, Claire L Jackson1

1Centre of Research Excellence in Quality & Safety in Integrated Primary-Secondary Care, School of Medicine, The University of Queensland, Australia, 2Princess Alexandra Hospital, Ipswich Road, Woolloongabba, Queensland, Australia

Background: Type 2 diabetes is one of the most common chronic diseases and significantly impacts healthcare systems in both the developed and developing world. Internationally, waiting lists at specialist diabetes outpatient departments continue to grow, resulting in care that can be fragmented and inefficient. All indications are that Australia faces similar challenges with long waiting lists and difficulties related to accessing hospital-based diabetes outpatient clinics. It follows that diabetes is a chronic disease where the general practitioner (GP) has a central role to play. With appropriate support, follow-up and information technology systems, delivery of complex diabetes care in general practice can be as effective as hospital-based outpatient care.

A new model of complex diabetes care is provided by a multidisciplinary team which incorporates GP Clinical Fellows supported by an Endocrinologist and Diabetes Educator within a community-based general practice setting. This study evaluates the health and clinical benefits of the new model of care, assesses the acceptability of the model to patients, GPs and other health professionals, and examines the cost-effectiveness of the model.

Methods: The study is an open, non-inferiority randomised controlled trial and the data is collecting at baseline, 6 and 12 months from 450 patients. Participants are identified from new patients on hospital-based diabetes outpatient clinic waiting lists and new GP referrals. Eligible consenting patients are randomised to either a community practice site (intervention) or a hospital site (usual care). Quantitative measures include clinical indicators with HbA1c as the primary outcome; patient-reported outcomes include health-related quality of life, mental health and satisfaction with care. Qualitative methods will be used to explore the perspectives and experiences of patients and providers regarding the new model of care. An economic evaluation is also being undertaken.

Discussion: Recruitment for the trial began in December 2012. To date, we have six study sites engaged and 170 patients recruited and surveyed, including 30 patients and 10 health professionals interviewed. This model of care seeks to improve the quality and safety of healthcare at the interface between the hospital and primary care sectors for patients with complex diabetes. The study will provide empirical evidence about the impact of the model of care on health outcomes, patient and clinician satisfaction, as well as any economic impacts.

Implications: Our study will progress international learning in chronic disease management. If effective for diabetes it could potentially be applied to other chronic conditions and extended nation-wide for integrated care delivery in the future.

Presenter Biography:

Jenny has been working in the Centre of Research Excellence in Quality & Safety in Integrated Primary-Secondary Care, Discipline of General Practice, School of Medicine, the University of Queensland since 2012. She is involved in preparing and conducting a program of research to measure the effectiveness of a new model to deliver care across the primary and secondary sectors for people with chronic illnesses.

Jenny has worked in medical education (selection, performance and professionalism) in recent years. She has published a number of research papers from her recent work and reviewed a number of articles for different journal bodies as well as supervised PhD students. She has had a collaborative research project with Ningxia Medical University, China on primary health care and health services research in 2009. She was granted a travel award in 2009 for her international collaborative project in China, and a ReTeach award in 2011 for her MBBS honours teaching in 2011.

Jenny’s main research interest is in the area of health service utilisation, prevention of chronic diseases, primary health care and socioeconomic health inequalities. Her expertise is in quantitative research methodology, database development, data management, and data analysis, questionnaire development and evaluation instrument tools.
Chinese rural older people and climate change adaptation - What do we know and how can we help?

Ying Zhang1, Wei Ma2, Baofa Jiang1

1 School of Public Health, University of Sydney, Sydney, NSW, Australia, 2 School of Public Health, Center for Climate Change and Health, Shandong University, Jinan, Shandong, China

Rapid economic development in China over the last decades has led to a high level of urbanization. Associated consequences in the society, economy, environment and public health have been significant, leaving the community and government unprepared for the changes. The most affected population would be those who are already vulnerable, e.g. the older, the poor, and the remote regions.

In order to understand how the Chinese rural older people think about climate change and how we can help them better adapt to it, we have conducted both qualitative and quantitative studies in rural regions in China. We conducted a cross-sectional survey to investigate the perceptions of the health risks of climate change and extreme heat events among the older Chinese living in rural areas. We also conducted a qualitative study with face-to-face interviews of individual older persons and stakeholders in rural and urban areas.

Our results indicated that compared to their urban counterparts, older people living in the rural areas had more concerns about climate change and a lower capacity and fewer resources to cope with the associated health impacts. There were significantly higher proportions of the rural older persons who worried about their own feeling during heatwaves. Logistic models showed that having more social activities could significantly reduce heat-related morbidity during heatwaves in rural areas by 33%-75%.

Qualitative results revealed the barriers for a better adaptation to the changing climate for older people in rural China. The challenges may include a lack of concern and knowledge of the risks from climate change/extreme heat, not enough government commitment and collaboration in rural regions, no existing adaptation strategies, policies or action plans in place related to climate/heat-health response for rural older people, and a lack of medical support in rural regions.

In conclusion, our study has, for the first time, investigated what Chinese rural older people think about climate change and the implications for policy making. Challenges exist for them with a lower capacity and limited resources to have a better climate change adaptation. (Project was partially funded by China 973 Program: 2012CB 95500955502)

Presenter Biography:

Dr Zhang is an epidemiologist with a cross-disciplinary background. She has given lectures on public health in both Australia and China. Dr Zhang's research interests include climate change and population health, management of multi-morbidity among the elderly and sustainability & global health. She has conducted epidemiological research on infectious diseases, chronic diseases, mental health and environmental health. She is a registered PhD primary supervisor at the University of Sydney. She has been awarded a NHMRC Public Health Training Fellowship and an Endeavour Australia Cheung Kong Research Fellowship. Dr Zhang is a Chief Investigator for projects funded by the Australian Research Council, the Australian National Health and Medical Research Council and other national and international organisations.