Capacity Building through Knowledge Transfer in Collaborative Research

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Presentation Outline

1. Brief summary of the USA-China Agricultural Injury Research Training Project

2. Experience in building capacity through knowledge transfer in collaborative research

3. Lessons learned (take home messages)
USA-China Agricultural Injury Research Training Project

Lorann Stallones, PhD (PI), Colorado Injury Control Research Center

Huiyun Xiang, MD, PhD (Co-PI), CIRP, The Ohio State University

Professor Zengzhen Wang (Local PI), Tongji Medical College School of Public Health, The People’s Republic of China
Specific Aims

1. To provide training to Chinese scholars on issues critical for conducting agricultural injury research

2. To expand collaborative research activities between the U.S. researchers and Chinese scholars

3. To provide training and continue development of human subjects research ethics in China
Long Term Goals

The long-term goal is to increase training and research related to agricultural injuries in China in order to develop an infrastructure for future sustainable injury research.
Training Mechanisms

1. Short Training Seminars in China

2. Chinese Visiting Scholars Training in the United States

3. Advanced Training- Mentored Injury Research Projects in China
## Training Workshops

<table>
<thead>
<tr>
<th>Year</th>
<th>Location of training</th>
<th># of trainees</th>
<th>Speaker evaluation scores (5=highest; 1=lowest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 15-19, 2007</td>
<td>Wuhan, Hubei Province</td>
<td>32</td>
<td>4.5-4.9</td>
</tr>
<tr>
<td>October 20-24, 2008</td>
<td>Sanya, Hainan Province</td>
<td>24</td>
<td>4.78-4.91</td>
</tr>
<tr>
<td>August 9-14, 2009</td>
<td>Chengde, Hebei Province</td>
<td>23</td>
<td>5.0</td>
</tr>
<tr>
<td>August 16-20, 2010</td>
<td>Xi’An, Shanxi Province</td>
<td>27</td>
<td>4.84-5.0</td>
</tr>
<tr>
<td>July 18-22, 2011</td>
<td>Hangzhou, Zhejiang Province</td>
<td>25</td>
<td>4.95-5.0</td>
</tr>
</tbody>
</table>

*Total trainees* 131
Wuhan, China :: October 15-19, 2007
Sanya, Hainan Province, China :: October 20-24, 2008
Chengde, Hebei Province, China :: August 10-14, 2009
Xi’An, Shanxi Province, China :: August 16-20, 2010
The 4th China-USA Agricultural Injury Research Training Seminar

2010年8月16-20日 中国 西安
Aug 16-20, 2010 China Xi’an
Hangzhou, Zhejiang Province, China :: July 18-22, 2011
Training Mechanisms

1. Short Training Seminars in China

2. Chinese Visiting Scholars Training in the United States

3. Advanced Training- Mentored Injury Research Projects in China
From 2008-2013, The USA-China Agricultural Injury Research Training Project has hosted 12 Chinese researchers at the two U.S. injury control research centers: Colorado Injury Control Research Center and Center for Injury Research and Policy at The Ohio State University.
Training Mechanisms

1. Short Training Seminars in China

2. Chinese Visiting Scholars Training in the United States

3. Advanced Training- Mentored Injury Research Projects in China
Advanced Training-Mentored Injury Research Projects in China

- Applications submitted by trainees
- Peer-reviewed and approved
- Obtain IRB approval from both China and US institutions
- One US faculty as co-investigator
- Expectation - At least 2 peer-reviewed journal articles
Funded Research Projects

The Study of Association Between Alcohol and Agricultural Injury in Rural Residents of Daur Nationality Habitation (2007-2008) *PI: Dr. Limin Wang*, Department of Epidemiology and Health Statistics, School of Public Health, Qiqihar Medical University, Heilongjiang Province

The Cross-Sectional Survey of Agricultural Injury of Farmers in Shouguang’s Vegetable Base, Shandong Province, China (2007-2008) *PI: Dr. Cuizhen Wu*, Department of Preventive Medicine, Shandong University of Traditional Chinese Medicine, Shandong Province

Agricultural Machinery Injuries Among the Machinery Operators in Northern Rural Areas of China (2008-2009) *PI: Dr. Zengzhen Wang*, Department of Epidemiology and Health Statistics, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Hubei Province

Cross-Sectional Study on Rural Resident Pesticide Poisoning in Jiangsu (2008-2009) *PI: Dr. Xujun Zhang*, Department of Epidemiology, School of Public Health, Southeast University, Jiangsu Province

Agricultural Injuries Among Adolescents in Hubei, China (2008-2009) *PI: Dr. Min Shen*, Department of Maternal and Child Health, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Hubei Province
Funded Research Projects

Non-Fatal Injury Among Dairy Farm Workers in Tangshan Area (2009-2010) *PI: Dr. Ling Xue*, Department of Health Science, North China Coal Medical University, Hebei Province

Agricultural Injuries Among Middle School Students in a Rural Area of Northern China (2009-2010) *PI: Dr. Junxin Shi*, Department of Maternal and Child Health, School of Public Health, Tongji Medical College, Huazhong University of Science and Technology, Hubei Province

Review and Analysis on Data Resource of Agricultural Injury in China (2009-2010) *PI: Dr. Hongyan Yao*, Office of Epidemiology, Chinese Center for Disease Control and Prevention, Beijing

Fishing Work-Related Injuries Among Fishers in Shensi Island County, Zhoushan City, Zhejiang Province (2009-2010) *PI: Dr. Weiwei Gong*, Zhejiang Provincial Center for Disease Control and Prevention, Zhejiang Province
Publications

From 2007~2013, our trainees published in Chinese and English peer-reviewed journals:

Chinese Journals: 10 articles

English Journals: 19 articles
International Conferences Attended by Trainees
9th World Conference, Merida, Mexico, 2008
2009 APHA Annual Conference, Philadelphia, 2009
2012 World Conference: New Zealand
Other Achievements

1. Provided help to Tongji Medical College School of Public Health to establish an IRB committee and to register the IRB at the Office for Human Research Protections (OHRP)

2. One of our trainees created the Southeast University Injury Prevention Research Institute

3. Established pediatric trauma care research network in China via Wuhan Children’s Hospital

4. Two trainees became editorial board members of Inj Prevention
Knowledge Transfer in Different Stages of Collaborative Research

Stage 1: Exploring the research ideas

Stage 2: Study design/grant application

Stage 3: Negotiate with funding agency/IRB clearance

Stage 4: Implementation of the study

Stage 5: Dissemination of study results (Publications/conferences)
Knowledge Transfer in Different Stages of Collaborative Research

Stage 1: Exploring the research ideas

- What are the issues you face in your professional work?
- What kind of data do you already have or can be collected?
- What are the policies regarding data sharing?
- What’s feasible given the available resources?
- What’s the final goal of the project (publication, grant application, or other)?
- What’s the project plan and responsibility of each side? Who else needs to be involved?
- How the credit will be shared if the project is successfully implemented?
- …..
Knowledge Transfer in Different Stages of Collaborative Research

Stage 3: Negotiate with funding agency/IRB clearance

- Who is the authority who can sign the contract?
- How the project fund will be distributed?
- How project expenditures will be controlled and monitored?
- What expenditures are allowed or not allowed?
- How to obtain an IRB approval which will be accepted by both sides of the collaboration?
- Issues or problems in obtaining IRB approval for the study?
- ……
Knowledge Transfer in Different Stages of Collaborative Research

Stage 5: Dissemination of study results (Publications/conferences)

- How to write manuscripts for peer-reviewed journals?
- How to communicate with editors?
- How to address reviewers' comments and resubmit?
- Is there a fee involved in publication and who will pay?
- ......
Lessons Learned

1. Be patient!

2. Trust is key to success of a collaborative research and knowledge transfer

3. A two-way knowledge transfer: we learn from each other and grow together professionally
Lessons Learned (continued)

4. Consider the interest of collaborators more important than yours and aim for win-win in collaboration

5. Open discussion about authorship and determine the order of authors of publications early
Lessons Learned (continued)

6. Be aware of differences in culture, regulations/policies, but maintain the bottom line of universal principles (e.g. human subject protection) and an undivided integrity in conducting science

7. Be positive!