

UGC Teaching Award 2017 (General Faculty Member/Teams)

How to Teach Global Health and Humanitarian Medicine? Interdisciplinary Global Field Experiential Teaching and Learning 如何教授全球健康和人道醫學？ 跨學科全球實地體驗式教與學

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CCOUC災害與人道救援研究所所長

Teaching Philosophy 教學理念



We do not learn from experience... We learn from reflecting on experience.
我們不是從經驗中學習。。。我們是從對經驗的反思中學習。

--John Dewey
--約翰 杜威

Why Global Health and Disaster and Humanitarian Public Health
Medicine are important?

為什麼全球健康和災害與人道公共衛生醫學如此重要？

Possess academic competency and expertise to enlighten students

My field of Study/ Disciplinary Context

Public Health to address the Four Horsemen of the Apocalypse (啟示錄四騎士)



*Four Horsemen of the Apocalypse –
Death, Famine, War, and Conquest, an
1887 painting by Viktor Vasnetsov*

Global Health and Human Security: Addressing health risks and well-being

全球健康和人類安全：處理健康風險和安康



Disaster
災害



War
戰爭



Famine
饑荒



Disease
疾病

Context: The teaching platform 教學平台 at CUHK

Create education environment to maximize students' learning opportunity in the area of expertise

The image features a dramatic, high-contrast sky. The upper portion is filled with dark, swirling clouds, with a bright, glowing light source breaking through near the center, creating a lens flare effect. The lower portion of the image transitions into a warm, orange and yellow glow, suggesting a sunset or sunrise. In the bottom right corner, there is a dark silhouette of a person standing and looking towards the horizon. The overall mood is contemplative and evocative.

Our journeys...

Transformative Education in the 21st Century for Tertiary Institutions

- UGC recommendations: Internationalization, collaboration, teaching-research nexus
(國際化、協作、教學與研究的紐帶)
- At CUHK: Global citizenship, Social Enterprise, Innovation
(世界公民、社會企業、創新)
- For **an academic discipline** which is **less structured in its knowledge base** and **relies heavily on exposure and experience**
(一個知識基礎較為分散、極為依賴歷練和經驗的學科)

How to build a learner-centred, outcome-based experiential learning programme (以學生為中心、成果導向的體驗式學習課程) that can provide transformative education experience (轉化性的教育體驗) for the learners (or even trainers) in the tertiary education sector (高等教育界)?

Stage 1: Didactic Teaching for Undergraduate & Postgraduate Students (本科生和研究生的講課)

Since 2006,

- Global Health (全球健康)
- Disaster and Humanitarian Crisis (災害與人道危機)
- Climate Change and Health (氣候變化與健康)
- Field Action Laboratory (實地行動實驗室)
- Research Methodology (研究方法)
- Risk Communication (危機傳播)
- Human Security and Health (人類安全與健康)

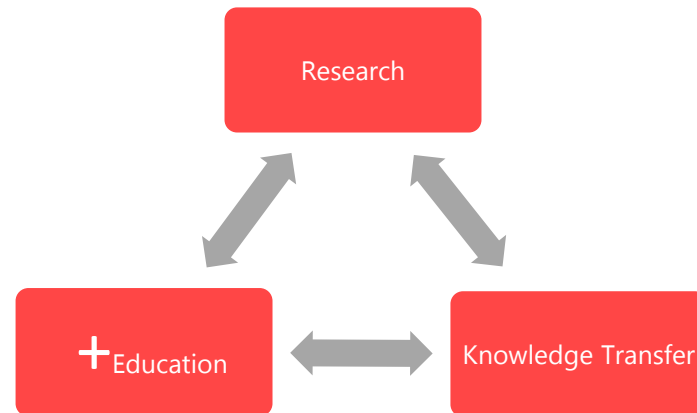


Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC)

CCOUC災害與人道救援研究所



- Established in 2011 (於2011年成立)
- At JC School of Public Health and Primary Care, Faculty of Medicine, The Chinese University of Hong Kong
- Mission: To serve as a **platform for research, education, and community knowledge transfer** in the areas of disaster and medical humanitarian crisis policy development, planning and response (為災害及醫療人道危機的政策發展、規劃及應對，提供**研究、教育及社區知識轉移**的平台)

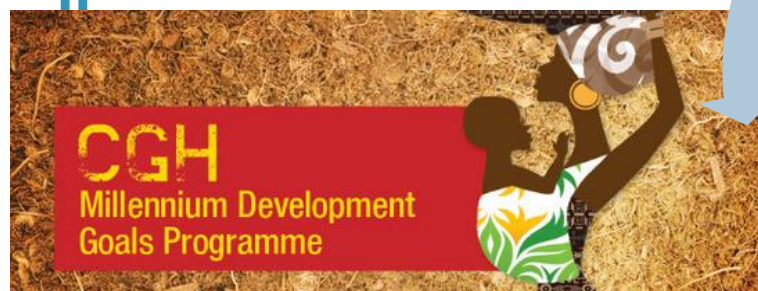




The Chinese University of Hong Kong
Centre for Global Health
 全球衛生中心
Numbers at a glance

Reporting Period:
April 2016 - February 2017

- Collaborated with
49 Organizations/
institutions



CGH Sustainable Development Goals Series



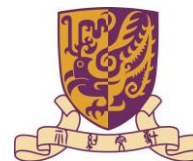
THE GLOBAL GOALS
 AND WHY **YOU** SHOULD CARE ABOUT THEM

Visit us online! <http://www.cgh.cuhk.edu.hk/>

22
initiatives

88
speakers

1150 total
participants



- CGH's SDG event series in particular have been featured on the **CUHK Sustainable Campus No. 15** as well as on the **CUHK main website**



The Refugee Run simulation was thought-provoking because it gave participants the opportunity to experience some of the challenges which refugees experience each day.

The True Cost documentary screening was particularly holistic. Apart from raising awareness about the social and environmental cost of the global fashion industry, we had an exhibition of the fair trade goods available on the Hong Kong market, and a post-screening discussion on avenues to take action to promote sustainable consumption and production (SDG #12) at an individual, university and organizational level.



4. The Centre's Sustainable Development Goals Series held a diverse range of events to promote the SDGs in 2016. Which were your proudest moments?

Our proudest moments are: the CUHK Human Library, the Refugee Run simulation, and the True Cost documentary screening.

The CUHK Human Library was a great event because it enabled students to meet with people they wouldn't ordinarily have the chance to meet—people who challenge gender and sexual stereotypes, including a transgender activist, an intersex therapist, a house husband, a female body builder and a female pastor. This provided spaces for students to learn from their stories, engage in raw conversations and hopefully foster a respect for differences.

Staff: Multi-disciplinary Team (多學科團隊)



- Medicine
- Public health
- Environment epidemiology
- Nutrition
- Public policy
- Communication
- Geography and resource management
- International relations
- Political and social sciences
- Finance

Key Education Focus (1): Research-Enhanced Curriculum 關鍵教育焦點（1）：由研究支持的課程



Disaster Preparedness & Response Planning in Urban and Rural Areas

城市和農村地區的災害準備與救援

Climate Change & Health

氣候變化與健康



Socio-demographic Predictors for Urban Community Disaster Health Risk Perception and Household Based Preparedness in a Chinese Urban City

June 27, 2016 · Research Article

Citation

Chan EY, Yue J, Lee P, Wang SS. Socio-demographic Predictors for Urban Community Disaster Health Risk Perception and Household Based Preparedness in a Chinese Urban City. PLOS Currents Disasters. 2016 Jun 27. Edition 1. doi: 10.1371/journal.pdis.2877b7ee094521a441a236c2d519.

Revisions

This article is either a revised version or has previous revisions
Edition 1 - June 27, 2016

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Abstract

Objectives: There is limited evidence on urban Asian communities' disaster risk perceptions and household level preparedness. Hong Kong is characterized by high population density, and is susceptible to large-scale natural disasters and health crises such as typhoons, fires and infectious disease outbreaks. This research paper investigates the rates and predictors of urban community disaster risk perception, awareness and preparedness, at individual and household levels.

Methods: A randomized cross-sectional, population-based telephone survey study was conducted among the Cantonese-speaking population aged over 15 years in Hong Kong. Descriptive statistics were reported. A

Int J Disaster Risk Sci (2017) 8:134–144
DOI 10.1007/s13753-017-0127-8



www.ijdrsc.com
www.springer.com/13753

ARTICLE

Weather Information Acquisition and Health Significance during Extreme Cold Weather in a Subtropical City: A Cross- sectional Survey in Hong Kong

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Chunlan Guo¹

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Abstract Health and disaster risk reduction are important and necessary components in building a smart city, especially when climate change may increase the frequency of extreme temperatures and the health risks of urban dwellers. However, limited knowledge is available about the best way to disseminate weather warnings and health protection information. This study explores the weather information acquisition patterns of the Hong Kong public and examines the sociodemographic predictors of these patterns to establish the potential public health implications of smart city development. A population-based, stratified cross-sectional, random digit dialing telephone survey was conducted among the Cantonese-speaking population aged over 15 years in Hong Kong in early 2016. Analyses were conducted based on 1017 valid samples, with a response rate of 63.6%. Cold Weather Warnings were well disseminated in Hong Kong, with 95.7% of the respondents reporting awareness of the public warnings. Television and smartphone apps were the two most important channels for weather information acquisition. Age and education level are the main social-demographic variables associated with the current utilization and future preference of smartphone technology. Among those who were not using a preferred

channel to acquire weather information, 61.3% considered switching to a smartphone app. Moreover, the patterns of individual health protection measures and self-reported health impacts were significantly different between smartphone app users and non-users. Weather information dissemination should be tailored to the sociodemographic characteristics of the users.

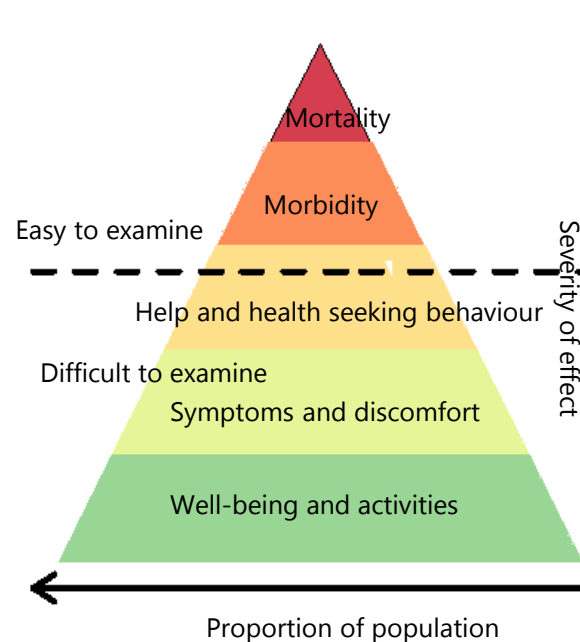
Keywords Cold weather warnings · Public health emergencies · Smart cities · Subtropical city · Weather information dissemination systems

1 Introduction

In the twenty-first century, climate change has increased the frequency and intensity of extreme temperature events (CRED and UNISDR 2015). Impacts of extreme temperature events could be far-reaching if societies fail to cope with them effectively. Abundant epidemiological evidence has established a causal relationship between mortality and cold weather (Carder et al. 2005; Anderson and Bell 2009; Goggins et al. 2013a). Myocardial infarction, ischemic heart disease, cerebrovascular disease, acute respiratory distress, and hypothermia have been found to worsen during cold surges (Hass 2005; Leung et al. 2008; Sena et al. 2014). The temperature-mortality/morbidity relationship varies greatly by latitude and climatic zone (Keatinge et al. 2000; Currier et al. 2002; McMichael et al. 2006; Falagas et al. 2009;

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¹ Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), The



EY Chan, WB Goggins, JJ Kim, SM Griffiths (2012) **A study of intracity variation of temperature related mortality and socioeconomic status among the Chinese population of Hong Kong.** Journal of Epidemiology and Community Health 2012;66(4):322–7.

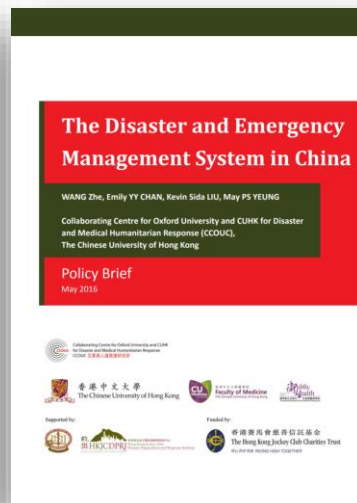
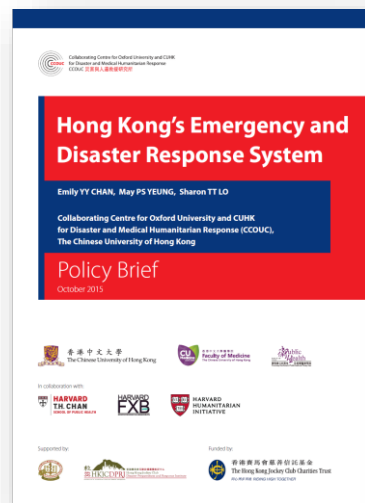
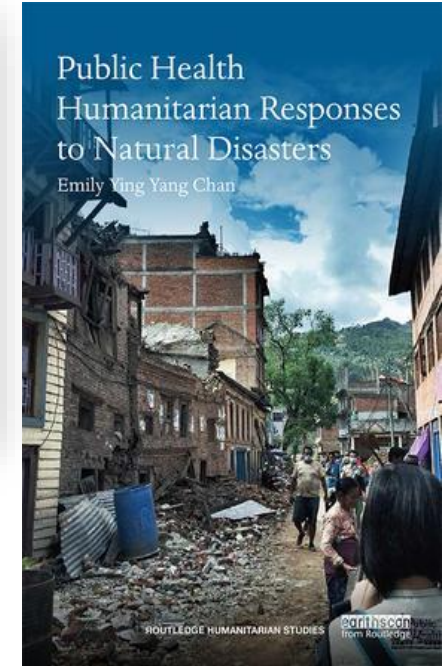
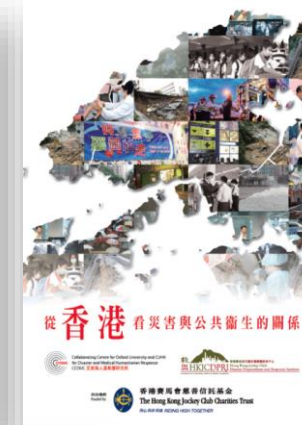
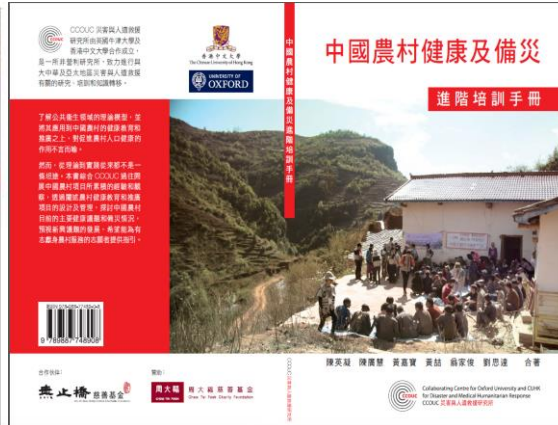
EY Chan, WB Goggins, JSK Yue, P Lee. (2013) **Hospital admissions as a function of temperature, weather phenomena and pollution levels in an urban setting in China.** Bulletin of the World Health Organization. August 2013

EY Chan, WB Goggins, JJ Kim, S Griffiths, TK Mak, **Help-seeking behavior during elevated temperature in Chinese populations.** Journal of Urban Health 2011; 88(4): 637–50.

Teaching-Research Nexus (教學與研究紐帶)

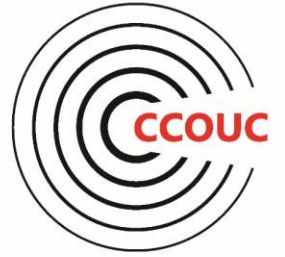
Curriculum: Teaching Materials

課程：教材



Curriculum: Technology-Supported Teaching Materials

課程：科技輔助教材



Mobile App (移動應用程式)

"Global Health 1001" was released in 2014

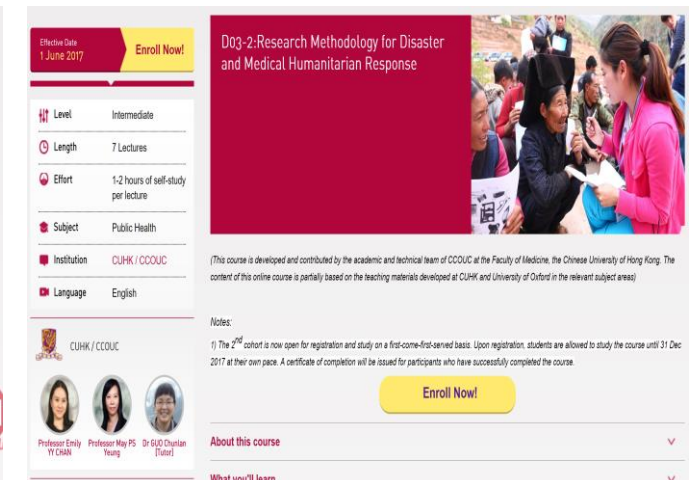
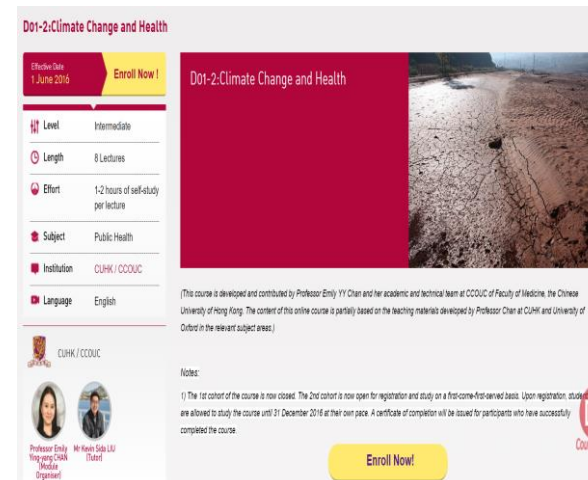
- Free download for iPhone/iPad
- 800+ terms and phrases
- Self supervision on learning progress



Online Course (網上課程)

Since 2014, Global Online access programmes

- Public Health Principles in Disaster and Medical Humanitarian Response (>5000)
- Climate Change and Health (>800)
- Research Methodology for Disaster and Medical Humanitarian Response (>400)
- And 7 more courses coming



Curriculum: MOCC in Public Health Principles in Disaster and Medical Humanitarian Response

課程：災害與人道救援中的公共衛生原理大規模開放網上課程



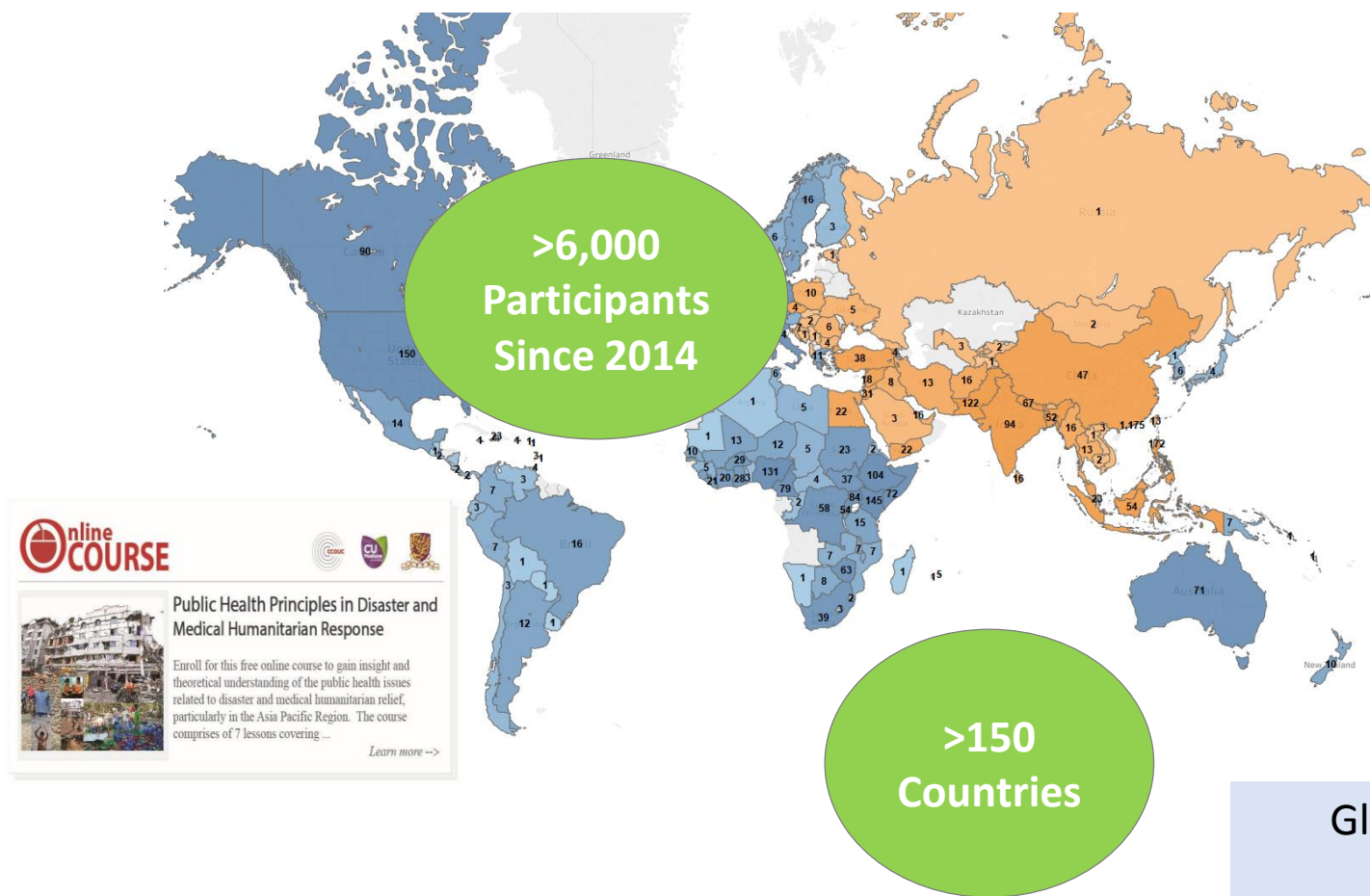
- A joint initiative (合作項目) between CUHK and Oxford University

- Over **6,000** participants from over **150 countries** since 2014

自2014年，共有來自150多個國家超過6,000名學生

- Over 2,500 of these participants from **51 Belt and Road countries** (一帶一路國家) (highlighted in orange).

Global Teaching and Learning Corridor
(全球教與學走廊)



Iterative global support: New case studies and teaching network exchanges

Key Education Focus (2): Partnership and Leadership (合作伙伴與領導地位)



- Academic partner of:



- Co-Chair, **WHO** Thematic Platform for Health Emergency & Disaster Risk Management (H-EDRM) Research Group (世界衛生組織災害健康風險管理專題研究組聯席主席)
- Member, **UNISDR** Asia Science Technology and Academia Advisory Group (ASTAAG) (聯合國減災署亞洲科學技術及學術諮詢小組成員)
- Director, Integrated Research on Disaster Risk (**IRDR**)* International Centre of Excellence (ICoE) (國際災害風險綜合研究計劃國際卓越中心總監)
- China Focal Point of The **Sphere** Project (環球計劃中國聯絡點) since June 2014



**IRDR is an international research platform co-sponsored by the International Council for Science, the International Social Science Council, and the United Nations Office for Disaster Risk Reduction. CCOUC is one of the 13 IRDR ICoEs across the world.*



Process: Transforming Theory into Action: Global Field Experiential Teaching and Learning 理論轉化為行動：全球實地體驗式教與學

Engage and accompany students in the experiential learning and knowledge construction process

The Traditional Experiential Learning Cycle

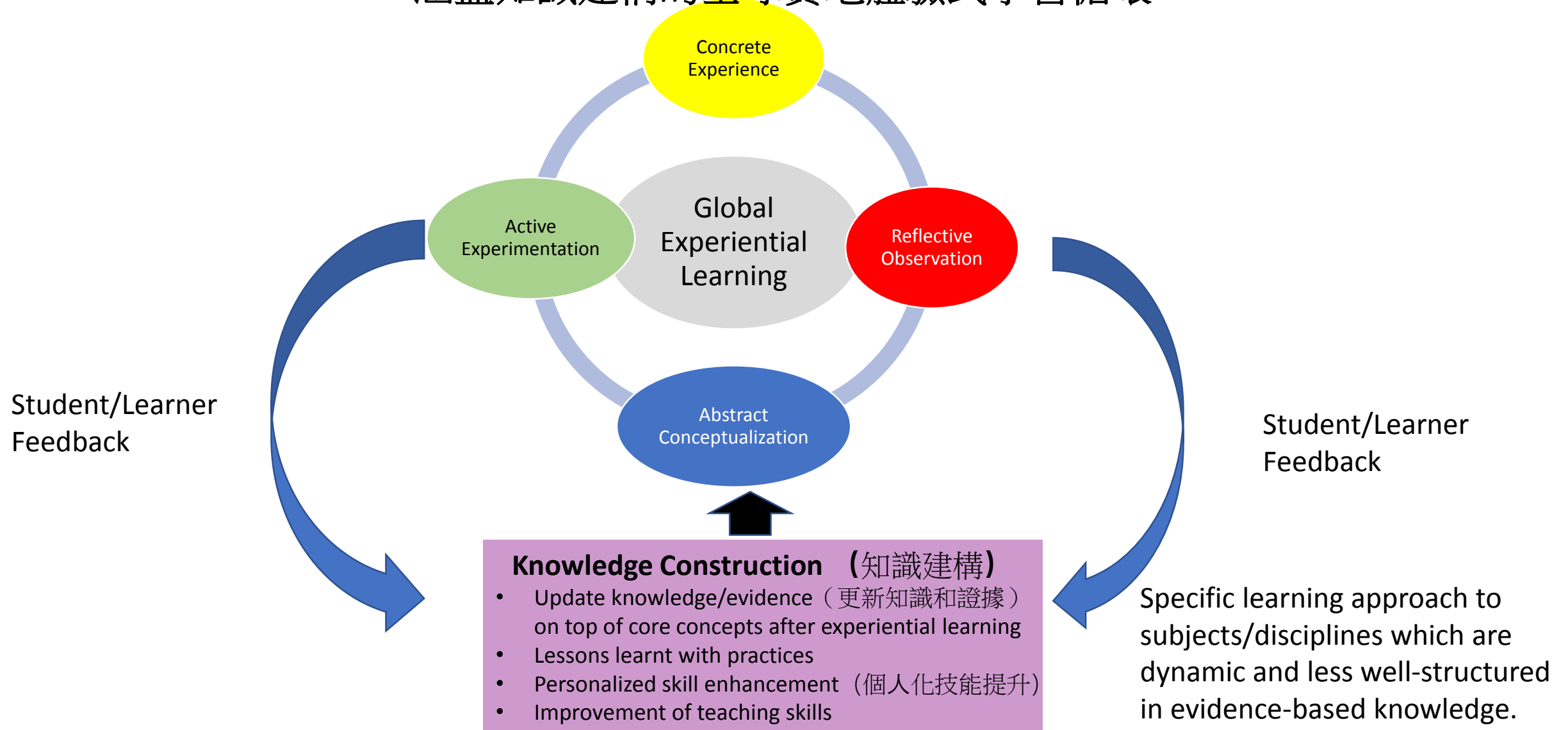
傳統的體驗式學習



Kolb's (1984) classic 4-stage "Experiential Learning Cycle"

Global Field Experiential Learning Cycle with Knowledge Construction

涵蓋知識建構的全球實地體驗式學習循環



If the programme follows a typical Field Experiential Learning Cycle (常規的實地體驗式學習循環)

抽象概括

Abstract
Conceptualization

抽象概念化

Abstract
Conceptualization

主動試驗

Active
Experimentation

具體經驗

Concrete
Experience

反思觀察

Reflective
Observation

Knowledge Transfer (知識轉移)

Technical Training

- Traditional Classroom (傳統課室)
- Online
- Simulation Exercise



Field Action Laboratory

- Flipped Classroom (翻轉課堂)
- Experiential Learning (體驗式學習)
- Teacher-facilitated
- Student-led
- New Knowledge Generation



Training Materials



Online Courses



Briefing/Preparation



Simulation Training



Critical Reflection



Field Lectures



Master Classes



Field Drills



Field Practices



Feedback



Public Sharing



Debriefing

If the programme follows a Field Experiential Learning Cycle with knowledge construction (有知識建構的實地體驗式學習循環)

Knowledge Transfer Technical Training

- Traditional classroom
- Online
- Simulation exercise



Field action Laboratory

- Flipped Classroom
- Experiential Learning
- Teacher-facilitated
- Student-led
- New Knowledge Generation



Knowledge Construction (知識建構)

- Research/Documentation (研究)
- Lessons Learning and Insight Sharing (經驗總結和分享)
- Feedback to the Community and Global Network (向社區和全球網絡反饋意見)

Abstract Conceptualization



Training Materials

Abstract Conceptualization



Online courses

Active Experimentation



Briefing/Preparation

Concrete Experience



Simulation Training

Reflective Observation



Critical Reflection



Field Lectures



Master Classes



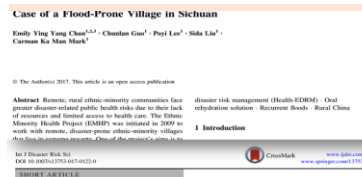
Field Drills



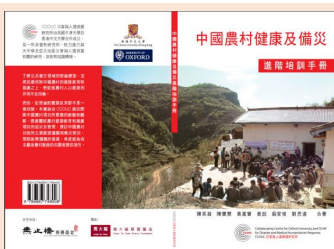
Field Practices



Feedback



Research Publications



New Training Materials



Field Context Re-evaluation



Field Results Dissemination

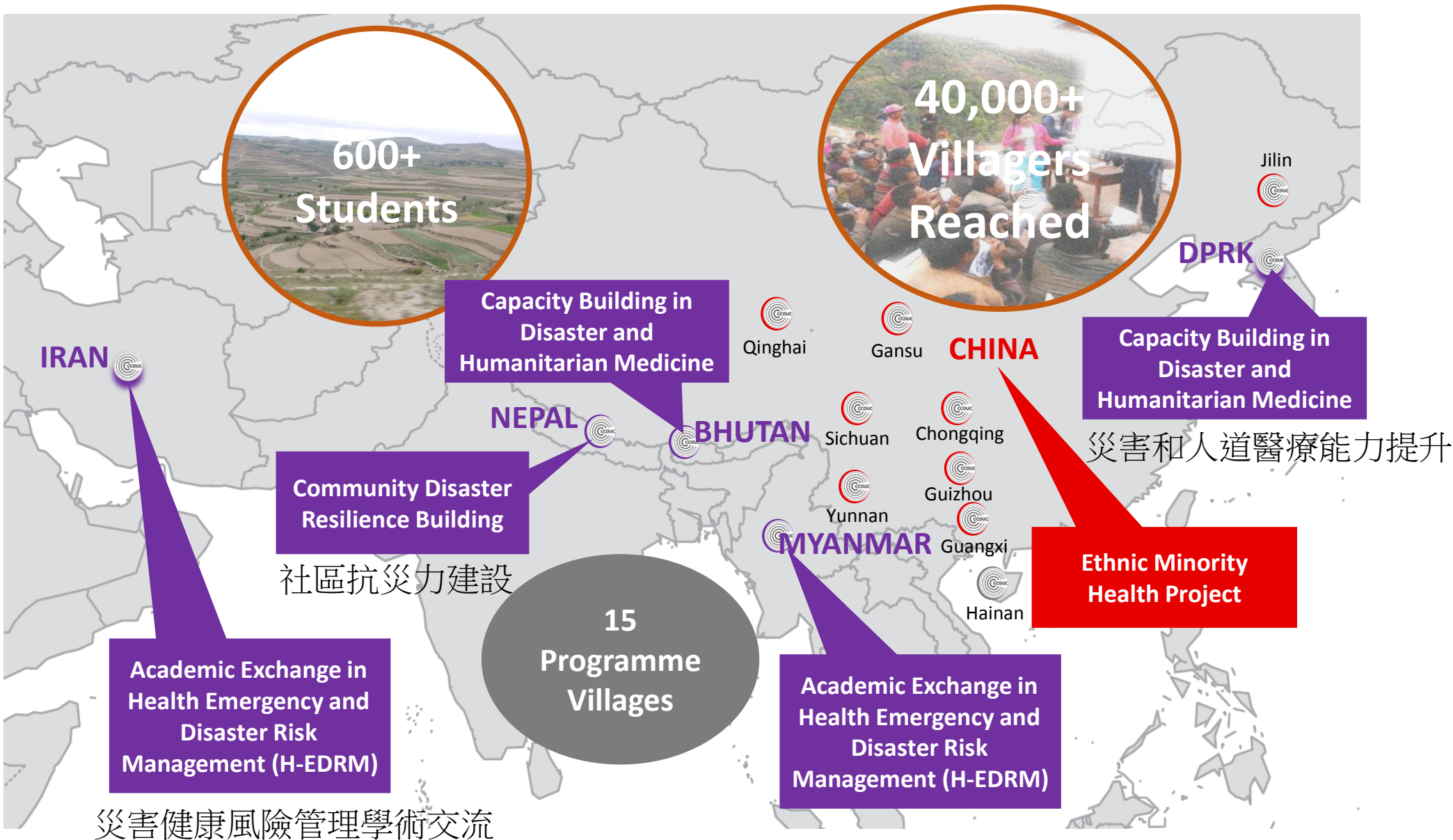


Public Sharing



Debriefing

Global Field Classroom (全球實地課室)



Ethnic Minority Health Project (China)

中國少數民族健康項目 14 sites in 8 provinces



KEY		: Flood	: Snowstorm	: Rockfall	: Drought
	: Project sites visited	: Fire disaster	: Earthquake	: Mudslide	
①	Gamai Village - Ethnicity: Tibetan				
②	Heihe Village - Ethnicity: Jingpo, Lisu				
③	Manbangtang Village - Ethnicity: Kunge, Bulang				
④	Guai Village - Ethnicity: Zhuang				
⑤	Hongyan Village - Ethnicity: Yi				
⑥	Ma'anqiao Village - Ethnicity: Dai, Yi				
⑦	Xingguang Village - Ethnicity: Miao				
⑧	Bapa Village - Ethnicity: Dong				
⑨	Nanjiang Village - Ethnicity: Dong				
⑩	Gaoyou Village and Nongtuan Village - Ethnicity: Dong				
⑪	Macha Village - Ethnicity: Han				
⑫	Datan Village - Ethnicity: Hui				
⑬	Dangzheng Village - Ethnicity: Han				
⑭	Dacao Village - Ethnicity: Manchu				



Example: Datan Village Project (2010-2017)

Location: Datan village (大滩村), Tianshui
Gansu Province

Ethnic minority group: Hui (回族)



Datan (大灘村) is a remote, poverty-stricken and disaster-prone village located in the South-eastern area of Gansu Province in China. About 90% of the village is resided by the “Hui” ethnic minority group. Because this village carries characteristics that expose villagers to major public health issues, it was selected as one of the 10 sites in The Ten Village Project, the predecessor of Ethnic Minority Health Project, which aims at empowering poor communities to prepare for and mitigate the adverse impact of natural disasters as well as increasing global awareness of the health issues related to these vulnerable populations in China.

Datan Village Project (2010-2017)

Background

- ◆ Chosen as it fulfills the criteria of being
 - i) remote
 - ii) ethnic minority group-based [90% “Hui” (回), 10% “Han” (漢)]
 - iii) disaster-prone (multiple disasters in the past, e.g. earthquake, fire, drought)
 - iv) economically deprived (average annual income per person: RMB1,140)
- ◆ households: 215, total population: 1,139
- ◆ 2 trips had been made in 2010 & 2011, respectively
- ◆ collaborator: Wu Zhi Qiao Charitable Foundation (WZQ)

1st Visit to Datan Village in August, 2010

Activities performed on site

- 1) **household survey**
(randomly selected available households to participate)
- 2) **focus group** (1 male group, 1 female group)
- 3) several informal **medical consultation**
(eye trauma, retina detachment, potential anemia, etc.)

- ◆ perceived quite a number of physical problems
- ◆ poor access to health care
- ◆ health information are limited, especially women's health
- ◆ major concerns:
 - occurrence of disaster, drought
 - safety of the household
 - warning system and preparedness of disaster

Needs identified



1st Visit to Datan Village in August, 2010



2010 Need Assessments Results

- Health status: 51.9% didn't go to see the doctor during the past three months because they couldn't afford.
- Disaster: 47.7% of them thought they were living in a high risk disaster area.
- Climate change: For climate change, 84.5% thought the weather had been abnormal these years.
- 81% thought there was more rain, 47.6% thought it's hotter than usual in summer, 57.9% thought it's colder than usual in winter.
- Hand-washing: 92.2% would wash hands before eating, 88.8% after touching animals, and 94.6% after using toilet.
- Smoking was not a big issue as 73.6% of the villagers had never smoked.

2nd Visit to Datan Village in January, 2011

Activities performed on site

- ◆ health interventions
 - 1) life style modification
 - 2) disaster preparedness
 - 3) environment and waste management
 - 4) women's health (only to female audience)
- ◆ household survey concerning disaster preparedness



2nd Visit Health Intervention in 2011 – Lifestyle



2nd Visit Health Intervention in 2011 – Environment and Waste Management



3rd Visit Health Intervention in 2011 – Disaster Preparedness



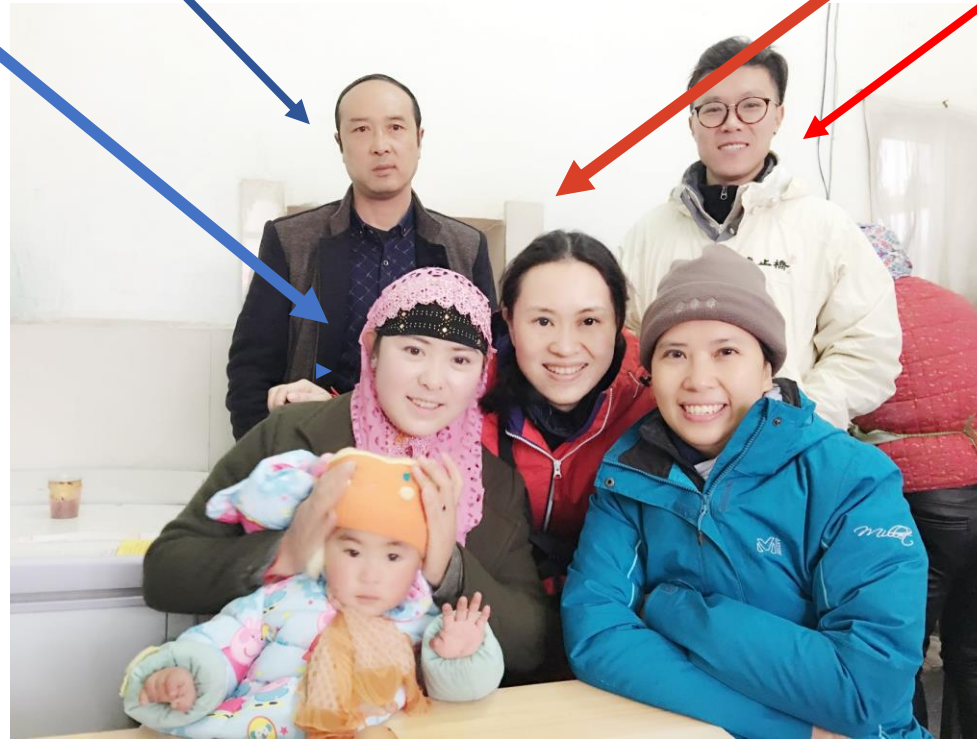
2017



4th Visit: 2017 Evaluation of Health Intervention



2010 to 2017



As of December 2017, Ethnic Minority Health Project, China



14 Ethnic Minority Groups

10 Provinces

24 Villages Visited

14 Project Villages

~700 students, staff,
practitioners trained



Since 2013, Regional Trainings in Asia

- CCOUC – [Sphere Country Focal Point](#) for China since 2014 to promote internationally recognized minimum standards in humanitarian response for the Geneva-based [Sphere Project](#)
- Provide trainings on Sendai Framework / SDGs / Sphere Project etc. to government departments, academia & civil society organizations in:
 - Hong Kong (Department of Health / NGOs / secondary school teachers)
 - China (CDCs / NGOs)
 - Nepal (NGOs / academic institutions)
 - DPRK (State Commission on Disaster and Emergency Management / various government departments)
 - Bhutan (academic institutions, government departments)



Milestones and Global Leadership in Education

里程碑和全球教育領導地位

Tertiary Education (高等教育)

1. Established 21 long-term training and research sites (>40,000 villagers) (建立21個長期培訓和科研站點(超過40,000名村民))
2. 600 Field-based students (帶領600名學生實地考察)
3. >80 Post-graduate research theses (超過80篇研究生科研論文)
4. >6,000 global online students (150 countries) (超過6,000名來自150個國家的全球網上課程學生)
5. >32 countries (academic links) and 17 global active partners (超過32個國家學術機構網絡和17個全球合作伙伴)
6. 16 teachers/trainers (within the tertiary education sectors) (高等教育界16名教師／培訓人員)
7. 6 books and 212 research and academic papers (6本著作和212篇學術論文)
8. 11 NGO formations (成立11個非政府組織)

Secondary and other education initiatives (中學和其它教育項目)

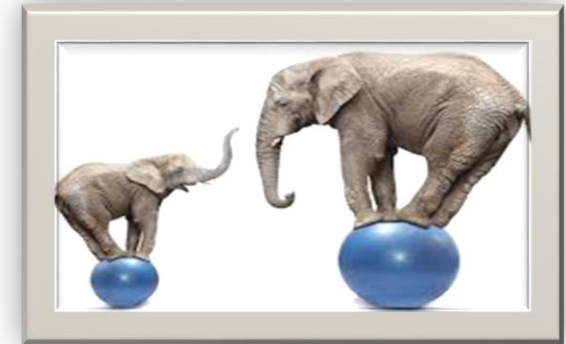
1. Curriculum for secondary school students: 727 (Teachers), 94,367 (Students) (中學生課程：727名教師和94,367名學生)
2. Adapted as staff training model for 21 NGOs (9 local and 12 global) (21個非政府組織(9個本地和12個全球)採用作職員培訓)

Awards (獎項)

1. Best Interdisciplinary Award in the Awards of Excellence in Social Engagement 2013, CUHK (香港中文大學傑出社會參與獎2013最佳跨學科獎)
2. Leader of the Year 2015 Award (Community Service/Public Affairs/Environment and Conservation), Sing Tao News Corporation (星島報業集團2015年傑出領袖獎)
3. National Geographic Chinese Explorer Award, *National Geographic* (國家地理中國探險家獎):
Bridging and breaking the frontiers among academic, frontline and practices in the field of science, medicine, humanities and education

Key Lessons Learnt

1. At the **frontier** of knowledge generation (research, active engagement and contribution to the community network) (在知識創造的**最前沿**)
2. Foster global expert networks and field action support. Not only knowledge transfer but “knowledge construction”. **Interactive and Iterative Learning Process** (建立全球專家網絡和實地教學活動支援。不單要知識轉移，更要知識建構。**互動和周而復始的學習過程**)
3. Build in values and incentives (prestige, credit-bearing, internship opportunity, networking opportunities) (加入價值和誘因)
4. Multi-disciplinary students (來自不同學科的學生)
5. Stress on accountability (強調問責)
6. Believe in the next generation. Walk with them.
(相信下一代。與他們同行。)
7. Love your subject area (愛你的學科)



Be the positive **disruption**



More Information:



<http://ccouc.org>

Collaborating Centre for Oxford University and CUHK
for Disaster and Medical Humanitarian Response
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Health Emergency and Disaster Risk Management (Health-EDRM): developing the research field within the Sendai Framework paradigm. Int J Disaster Risk Sci. 2017. doi:10.1007/s13753-017-0122-0
Resilience analysis of countries under disasters based on multisource data. Risk Analysis. 2017 Apr 6; Advance online publication. doi:

THANK YOU

