## UNU-International Institute for Global Health (UNU-IIGH),

Kuala Lumpur, Malaysia

# Research and Training Programmes

Towards Achieving Sustainable Global Health

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Director



# UNU International Institute for Global Health Kuala Lumpur





# UKM Medical Centre



#### National University of Malaysia Medical Centre

- Teaching Hospital
- Medical Faculty

16 Post-graduate clinical specialist programmes (1981) /200pgs/yr MSc and PhD programmes.

Medical Ethics Committee.

- International Case-mix Centre
- UKM Institute of Molecular Medicine (UMBI)

Molecular basis of diseases.

Fred Hutchinson Cancer Research Centre, Seattle

Prof Lee Hartwell – 2001 Nobel Laureate Prof John Porter





#### **UNU-IIGH Board Of Advisors**



Prof. Walter Patrick (USA)



Prof. Abdallah Daar (Canada)



Prof. Ricardo Uauy (Chile)



Prof. Indira Chakravarty (India)



Dr. Babatunde Ahonsi (Nigeria) Prof. Ir. Raden Umar Sohard UNU-INRA Conf 5-7 Dec 2011



(Malaysia)

## Funding from Host Government

Year	Capital Contribution USD (million)	Operational Contribution USD(million)	Total USD(million)
2006	4.0	0.8	4.8
2007	4.0	0.85	4.85
2008	4.0	0.9	4.90
2009	4.0	1.1	5.1
2010	4.0	1.0	5.0
2011	4.0	0.8	4.8
2012	4.0	0.6	4.6
2013	4.0	0.4	4.4
2014	4.0	0.2	4.2
2015	4.0	0.0	4.0
	40.0	6.65	46.65



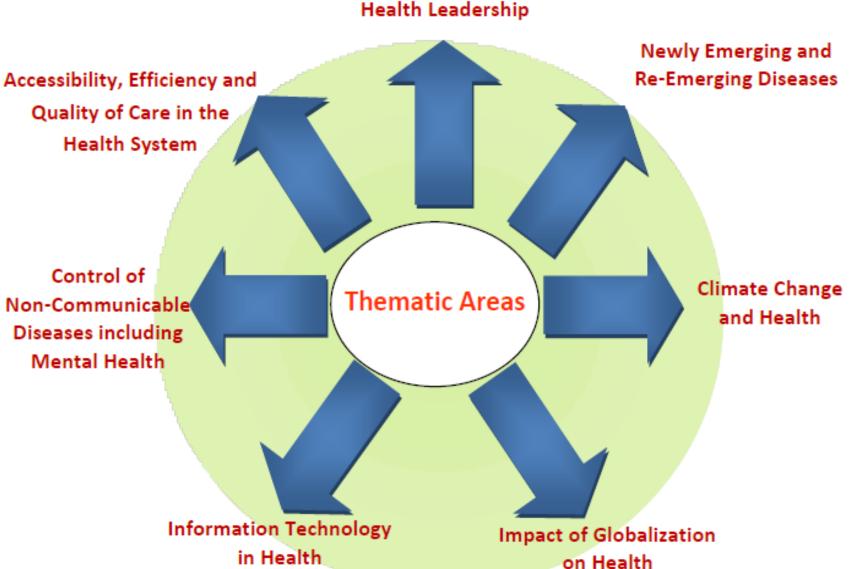
#### Mission of UNU-IIGH

To undertake research, capacity development and dissemination of knowledge related to key issues of human health.

To contribute to the development and strengthening of health services frameworks and management actions, particularly for people in developing countries.

To address these concerns through research, capacity development, knowledge transmission and providing advisory services.

#### Thematic Areas of UNU-IIGH



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# Capacity Building at UNU-IIGH: Through R & D for 2011/2012/2013



# Areas related to Sustainable Development in Natural Resources

- Environmental Health & Management
- Climate Change & Health
- Economic Burden of Diseases & Poverty Reduction
- Capacity Building





## Environmental Health & Management

- Economic burden of asbestosis (with UOEH, Japan)
- Health risk and health care cost assessment of arsenicosis in Cambodia and Laos (with UNU & GIST, HKBU and UKM).
- Acute respiratory illnesses related to particulate air pollution in Amman, Jordan



## Climate Change & Health

- Global vulnerability to disease (VyGIL) developing an interactive global vulnerability tool (with UNU-INWEH, UNU-EHS and others).
- An approach to identify risk of and vulnerability to dengue fever and chikungunya in Malaysia for the purpose of mitigation or management (with UNU-INWEH, MOH Malaysia and others).
- Connecting environmental changes, impacts and response in the Mekong Delta to human wellbeing and ecosystem integrity (with UNU-INWEH and UNU-EHS).



# Burden of Diseases & Poverty Reduction

- Economic burden and cost-effectiveness of diabetes mellitus management in Malaysia.
- Evaluation of Case-mix system implementation in Indonesia: Comparison of INA-DRG and fee-for-service tariff in selected hospitals in Jakarta (with MOH, Indonesia).
- Cost of treatment of diabetes in Asia; Evidence from Malaysia, India, China, Thailand: Phase II study (with Stanford).
- Impact of clinical pathway on cost and quality of care in Malaysia
- Clinical and economic burden of pneumococcal disease in Malaysia.

#### Examples of Research

# Health Risk and Health Care Cost Assessment of Arsenicosis in Cambodia

- A collaborative research effort with UNU & GIST, Hong Kong Baptist University, National University of Malaysia (UKM), Royal Agriculture University of Phnom Penh and Ministry of Health, Cambodia.
- Study on the biomarkers, health impacts, economic burden, food chain and clinical pathway of arsenicosis.
- February 2008 to present.



#### Research Activities of Health Risk and Health Care Cost Assessment

of Arsenicosis in Cambodia.











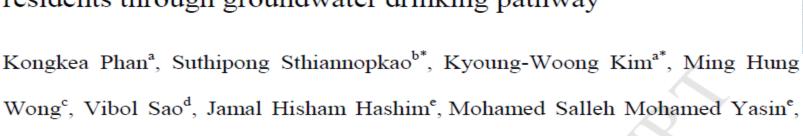
#### Victims of arsenicosis in Kandal Province, Cambodia





#### ACCEPTED MANUSCRIPT

Health risk assessment of inorganic arsenic intake of Cambodia residents through groundwater drinking pathway



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### Example of Research

# Global Vulnerability to Disease (VyGIL) - Developing an Interactive Global Vulnerability Tool

- A collaborative research project between 3 UNU institutes (UNU-IIGH, UNU-INWEH and UNU-EHS and MOH Malaysia)
- To develop an interactive GIS tool to map vulnerability indices of water-related diseases.
- A proof-of-concept study on dengue fever and chikungunya in Malaysia was initiated in 2008.
- October 2008 to present.





# Capacity Building at UNU-IIGH: through Academic Programmes 2011/2012/2013



# Academic

Level	Country	Activity
Masters and PhD	Malaysia	• In collaboration with National University of Malaysia (UKM) There are now 27 PhD students from 6 countries. All the students registered with UKM and supervised or jointly supervised by IIGH Research Fellows. 8 students have graduated with PhDs.
MPH	Yemen	• In collaboration with Univ. of Science of Technology (UST), Sanaa and National University of Malaysia (UKM).  1st cohort of 18 students graduated on 27 Nov 2010, there are 37 students for second intake. Programme offered on executive mode. Students are in middle management.
MPH	Sudan	• In collaboration with University of Medical Science and Technology (UMST) Khartoum. There are now 34 students in the 1 <sup>st</sup> batch . 2 <sup>nd</sup> intake has recently been enrolled. Programme offered on executive mode. Students are in middle management.
MPH	Nepal	• In collaboration with BP Koirala Institute of Health and Medical Sciences (BPKIHMS). There are currently 15 students enrolled. Input in Environmental Health



Dr Sharifah Izet (Malaysia), Dr Zafar (Pakistan), Prof Syed Aljunid (SRF), Dr Khalid (Yemen), Dr Hoessin (Iran)

Level	Country	Activity
Masters and PhD	Malaysia	<ul> <li>Postgraduate at UNU-IIGH</li> <li>1. Master in Community Health Science as a joint degree in collaboration with National University of Malaysia (UKM) for 2012.</li> <li>MOU between UKM &amp; UNU-IIGH signed in 2009 to facilitate this.</li> <li>2. MSc in Health Informatics as a joint degree with UNU-IIST for 2012</li> <li>3. PhD internship programme for 2012</li> </ul>
Post Doctoral	Malaysia	<ul> <li>Post Doctoral Programme at UNU-IIGH</li> <li>3 Post-Docs from Uganda, Cote-de Voir and Iran</li> </ul>







# Yemen











## Nepal







September 2011



# Capacity Building at UNU-IIGH: through training activities for 2011/2012/2013



# Training

Area	Country	Remarks
Case-Mix	Philippines	• Hosted by the Philippines Health Insurance Corporation and funded by WHO/EU/ Deutsche Gesellschaft fur Zusammenarbeit (GTZ). (SPC- USD90,000).
Case-mix	Uruguay	• Engaged by Sanatorio Americano, Montevideo, Uruguay to run a 10 module training programme in the implementation of the Case-Mix and this will be completed by the end of this year. (SPC- USD 130,000).
Case-mix Grouper	Indonesia	•The institute is currently involved in implementing the UNU-IIGH Case-Mix Grouper (developed in-house) in collaboration with the Ministry of Health, Indonesia (KEMENKES) funded by AUSAID. (SPC USD 750,000)

Area	Country	Activity
Case-Mix	Mongolia	Implementation of Case-Mix Training in Mongolia funded by ADB.
Case-mix	HUS Malaysia, Vietnam, China, Chile, Yemen, Ghana, Kenya	<ul> <li>MOU signed in Nov 2011</li> <li>Have shown interest in the implementation of Case-mix in their health care delivery systems</li> </ul>
On-line Case-mix and Open Source for HIS	World-wide	<ul> <li>The institute provide 2 online training programmes:</li> <li>1. Open Source Software Training for Health Information System (MOU signed with GNU Solidario (Nov 2011)</li> <li>2. Case-Mix Online Training.</li> </ul>
Training of Coders	Malaysia	• Training for MOH Coders





# Mongolia









Case-mix in Philippines









Case-mix Uruguay









# Indonesia





# UNU-IIGH's Roadmap in Africa

- Burden of diseases and SHI Programme
- Environment related diseases
- HIS on Open Source
- Mental Health
- Capacity Building





# Research & Capacity Building in Mental Health 2012

- Appointment of RF in Mental Health
- Establishing a network for Mental Health
- Bidding to become a 'hub' for mental health in research and capacity building for the Asia Pacific region
- Plan to collaborate with the African 'hub'
- Funding from NIMH





SOCIO-ECONOMIC AND MENTAL
HEALTH BURDENS OF HIV/AIDS
IN DEVELOPING COUNTRIES



#### Networking



Mongolia



Yemen



Nepal

- UN Agencies WHO, ILO, UNAIDS, IAEA, UNDP, ECOSOC, UNFPA, UNICEF
- UNU RTCPs-unu-inweh, unu-ehs, unu-ias, unu-iist, unu-isp, unu&gist
  - Other Institutions/Agencies- Rockefeller Foundation, 3M, ADB, MOH (Malaysia, Indonesia, Yemen, Mongolia, Philippines, Cambodia, Vietnam), Malaysian Universities (UKM, USM, UMS, UDM), UGM &UI (Indonesia), UP (Philippines), NUS (Singapore), NU (Thailand), Can Tho (Vietnam), HKBU (Hong Kong), GIST (Korea), BP Koirala (Nepal), Apollo Hospital Group (India), UST(Yemen), UMST (Sudan), SU (Oman), HFA (Dubai), BC (Saudi Arabia), WCU(South Africa), BOTA (Botswana), UL(Nigeria), UQ (Australia), UU (Sweden), APRU, MRC (Toronto), DU(UK) Sanatoria Americano (Uruguay), OSCHA, APACPH and others.

