Department of Global Health

Conference on Interdisciplinary Aging Research for the 21st Century

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Professor, Department of Global Health
University of Washington
9 October 2008
Department of Global Health

Mission

To reduce health disparities that disproportionately affect poorer populations throughout the world, through education, research, and service programs.
GOALS OF DGH

World Class GH Program at UW – with education, research, Service – to help reduce the health disparities that affect 85% of the world’s population.

Do this by:

a) Bringing together – consolidating – interdisciplinary institutions, centers, programs, and teams to tackle complex global health problems.

b) Work with Partners in WA State to make this area an epicenter for Global Health.
Why the Interest in Global Health?

**Threat of pandemics:** AIDS, SARS, Avian Influenza, multidrug resistant bacteria (e.g., MRSA, XDR TB)

**Health as a development issue**

**New Resources and Players:** Rockefeller → PAHO → WHO →WB, UNICEF → Now PEPFAR, GFATM, BMGF, NGOs, public–private partnerships.

**Young people:** It’s the right thing to do, the smart thing to do, and we can do it!

**Political & faith-based organizations** and media interest
Causes of Death in Low / Middle Income vs. High Income Countries, 2001

<table>
<thead>
<tr>
<th>Category</th>
<th>Low/Middle (5 billion people)</th>
<th>High (1 billion people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections</td>
<td>27%</td>
<td>6%</td>
</tr>
<tr>
<td>Maternal, Perinatal, Nutrition</td>
<td>7%</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Non Communicable Diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer, cardiovascular, diabetes, neuropsychiatric,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>respiratory, GI</td>
<td>51%</td>
<td>86%</td>
</tr>
<tr>
<td>Injuries</td>
<td>9%</td>
<td>6%</td>
</tr>
</tbody>
</table>
Department of Global Health
People, resources, and links

• >85 Faculty (9 Primary, 5 Joint, 71 Clinical, Affiliate, and Adjunct), 25 Pending Faculty (3 Transfer, 7 Joint, 8 Adjunct)

• ~200 Staff in Seattle (including centers)

• 6 academic sites & 5 center sites

• $130m in State, Foundation, and Federal funding

• Work in more than 25 countries
Department of Global Health
Faculty Appointments

PRIMARY APPOINTMENTS

King Holmes, Professor, Chair
Judy Wasserheit, Professor, Vice Chair
Chris Murray, Professor, Director IHME
Stephen Gloyd, Professor, Associate Chair
Connie Celum, Professor, Director ICRC
Ann Downer, Senior Lecturer, Director I-TECH
Emmanuela Gakidou, Associate Professor
Jaisri Lingappa, Associate Professor
Stephen Lim, Assistant Professor

JOINT APPOINTMENTS

Andy Stergachis, Professor
James LoGerfo, Sr. Professor
Ann Kurth, Associate Professor
Joseph Zunt, Associate Professor
Jairam Lingappa, Asst. Professor
Elizabeth Bukusi, Res. Asst. Prof
Org Chart of Department
Interdisciplinary Program in Pathobiology

- Basic science research and global health
- Emerging infectious diseases
- Previously within the Pathobiology Department of the School of Public Health
Institute for Health Metrics & Evaluation
Director, Chris Murray

Provides useful and credible health information to enable decision-makers to craft high-benefit policies.

Research focus on five areas: Health Outcomes; Health Services; Resource Inputs; Decision Analytics; & Evaluations.

Provide an accessible global data bank

Training: Fellows and faculty

Joint effort with Gates Foundation, leverages other funding

Over 100 faculty and staff. Office on 4th Avenue
International Training & Education Center for Health (I-TECH) – 26 Countries

Botswana
Ethiopia
Haiti
Guyana
India
Kenya
Malawi
Mozambique
Namibia
So. Africa
Tanzania
Thailand
Uganda
Vietnam
Zimbabwe
Caribbean

http://www.go2itech.org
Our Mission is to support the development of policies that foster social and economic equity for all with a focus on public-sector health systems and a progressive realization of the right to health.

Independent non-profit agency. Annual budget of ~$30m

Presence in Mozambique, East Timor, Cote d’Ivoire, Sudan

Strong communications & advocacy regarding global health policy

Focus on strengthening government primary health care

Funding for HIV/AIDS, malaria, mother-child health,

All projects have been led by UW grads
International Clinical Research Center

Connie Celum
MD, MPH

Nairobi: James Kiarie, Carey Farquhar, Grace John-Stewart

Thika: Nelly Mugo

Kisumu: Videlis Nduba, Elizabeth Bukusi, Craig Cohen

Eldoret: Edwin Were, Ken Fife

Moshi: Rachel Manongi, Paul Magao, Saidi Kapiga

Kampala: Edith Nakku-Joloba, Linda Kavuma, Allan Ronald, Elly Katabira

Kigali: Brigitte Bekan, Etienne Karita, Susan Allen

Soweto/PHRU: Glenda Gray, Guy DeBruyn, Ntombi Bandezi, James McIntyre

Orange Farm/RHRU: Sinead Delany & Helen Rees

Cape Town: Alana DeKock, Mercy Kamupira, David Coetzee

Gaborone: [Patrick Ndase], Anchilla Owor, Ibou Thior, Max Essex

Lusaka, Ndola & Kitwe: Bellington Vwalika, Mubbiana Inambao, William Kanweka, Susan Allen

Jared Baeten
MD, PhD

Jai Lingappa
MD, PhD
Our mission is to foster collaborative and interdisciplinary research, support HIV research career development of young investigators, and serve HIV investigators at our affiliated institutions.

The UW/FHCRC CFAR is one of 20 CFARs that comprise a national consortium of NIH-funded AIDS research centers. Our members are HIV/AIDS investigators from the University of Washington, Fred Hutchinson Cancer Research Center, Seattle Biomedical Research Institute, Children's Hospital and Regional Medical Center, and others.

**CFAR Core Programs:** Biometrics, sociobehavioral research, clinical, international core, clinical epidemiology and health services research, computational biology, clinical retrovirology, immunology

**CFAR Scientific Programs:** Health systems and strategies research, mathematical modeling, AIDS-associated infections and malignancies
Washington Global Health Alliance

Working Groups

- Advocacy & Communication (PATH & SBRI)
- Research & Technology (SBRI/FHCRC/UW)
- Public-Private Partnerships (Alliance Partners)
- Education, Training & Mentoring (UW & PATH)

Secretariat (PATH)
Education and Curriculum Office
Current DGH educational programs

MPH in global health
- General track (4-6 qtrs w thesis)
- Peace Corps Masters International (3 qtrs, then 2 yrs PC, then 1-3 qtrs)
- Concurrent MPH degrees
  - MD, nursing, social work, public affairs, law, international studies, Anthro PhD

Certificate in Global Health (15 credits with other graduate degree)

PhD in Pathobiology (4-6 years)

School of Medicine Global Health Pathway & GH residency programs
## Students in current programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Current enrolment</th>
<th>Applications 2008</th>
<th>Entering 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPH – Standard DGH/epi</td>
<td>36 (28/8)</td>
<td>65</td>
<td>21</td>
</tr>
<tr>
<td>MPH – Peace Corps</td>
<td>11</td>
<td>43</td>
<td>5</td>
</tr>
<tr>
<td>MD-MPH</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Global Health Certificate</td>
<td>50</td>
<td>40</td>
<td>As qualified</td>
</tr>
<tr>
<td>Post-Bach Fellows</td>
<td>12</td>
<td>NEW</td>
<td>9</td>
</tr>
<tr>
<td>PhD Pathobiology</td>
<td>41</td>
<td>60</td>
<td>6</td>
</tr>
</tbody>
</table>
New programs being developed (previous objectives)

Undergraduate minor

Expanded masters options (MPH)
- Leadership-management track
- Metrics/evaluation track

- New graduate-level and undergraduate courses
Undergraduate Minor

Minimum 30 credits, plus foreign language proficiency through the second-year level

**Required courses:**
- GEOG 280 “Intro to the Geography of Health & Health Care”
  OR GH 4XX “Challenges in Global Health”
- UCONJ 501/503 “Intl Health Across Disciplines”
- PABIO 201 “Newly Emerging Infectious Diseases”

**Elective coursework from the following content areas:**
- Understanding Human Disease: Micro to Macro
- The Environment & Global Health
- Comparative Health Systems
- Sociocultural Ecology of Health
- Regional and Area Studies
Different modalities of instruction

- One year MPH curriculum (& possible MSPH)
- Distance learning
- Overseas courses (e.g., Peru, Uganda, Kenya)
- Short, modular (esp summer) courses using visiting faculty
- Applied/integrated courses (e.g., Biostat/epi)
- Credit for applied work (e.g., FETP)
Jointly-listed or co-sponsored courses

- Global Health Pharmacy: Medicines, Practice, and Policy (Garrison)
- IHME faculty courses proposed
  - Challenges in Global Health (Murray)
  - International health systems (Jamison –in 2009)
  - Survey analysis (Gakidou)
  - Cost-effectiveness analysis (Lim)
- War and public health/mental health
- Intensive writing skills for public health

Plus, potential overseas courses with partner institutions
New courses planned & implemented

- Global environmental health
- Leadership/management for global health
- Implementation science
- Clinical approaches to global health
- Summer short-courses
Strategic planning evolution

- SPHCM Global Health Strategic Plan (2001-03)
- Dept Global Health Advisory Committee Report (2005)
- Continuing assessments of curricular needs by IHP, now DGH faculty
- 2008 strategic planning process
New Programs - Strategic approach

1. **Assess workforce & curricular needs** (surveys and literature review)

2. **Identify educational institutions (USA & abroad) that provide training**

3. **Strengthen partnerships** (e.g., Nairobi, Lima, Maputo)

4. **Identify and strengthen the UW niche – create ‘signature programs’**

5. **DGH strategic plan (JW lead)**
Approach to academic program & course development

- **Jobs**
  - NGOs, academia, donors
  - (plan survey of grads and employers)

- **Competencies required**
  - Management, policy, epidemiology, research methods, training, clinical skills

- **Programs**
  - MPH, MS, PhD, DrPH, Certificates, MD, MSW, MBA, etc

- **Courses**
  - Epi, biostat, management, health systems, social & behavioral sciences, environmental health, tropical med
Jobs of 225 past UW MPH graduates
1989-2007

The bar chart shows the number of graduates in different roles and locations. The categories include:
- MOH, UN, donors
- NGOs LDC
- BINGOs LDC
- Univ LDC
- Univ USA
- BINGOs USA
- Gen USA
- Clinician USA
- Unknown

The chart indicates the number of graduates with information on their role and location, with a distinction between USA and Foreign (represented by the color scheme).
General categories of work & potential competencies needed

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGOs</td>
<td>68</td>
<td>33</td>
</tr>
<tr>
<td>MOHs/big agencies</td>
<td>36</td>
<td>35</td>
</tr>
<tr>
<td>Academia</td>
<td>48</td>
<td>35</td>
</tr>
<tr>
<td>Clinical work</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Non-GH work or unknown</td>
<td>73</td>
<td>15</td>
</tr>
</tbody>
</table>
## Job-compentency matrix (in progress)

<table>
<thead>
<tr>
<th>Job Competency domains</th>
<th>MOH, UN, CDC</th>
<th>LDC NGOs</th>
<th>USA BINGOs</th>
<th>Donors &amp; Fndtns</th>
<th>Univs</th>
<th>Clinical practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population health</td>
<td>++++</td>
<td>++++</td>
<td>++++</td>
<td>++++</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td>Preventive medicine</td>
<td>++++</td>
<td>++++</td>
<td>++++</td>
<td>+++</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Education &amp; training</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>++++</td>
<td>++++</td>
<td>+</td>
</tr>
<tr>
<td>Leadership</td>
<td>++++</td>
<td>++++</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Policy devt &amp; analysis</td>
<td>++++</td>
<td>+++</td>
<td>+++</td>
<td>++++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Management</td>
<td>++++</td>
<td>++++</td>
<td>++++</td>
<td>++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>Research</td>
<td>+</td>
<td>+</td>
<td>++</td>
<td>++</td>
<td>++++</td>
<td>+</td>
</tr>
<tr>
<td>Clinical medical skills</td>
<td>+</td>
<td>+</td>
<td></td>
<td>++</td>
<td>++++</td>
<td>+++++</td>
</tr>
</tbody>
</table>
Global Health Dept core courses
-to support campus-wide global programs
Potential Further Areas for Development:
41 responses to May 2008 RFP for Centers and Initiatives

...Initial examples

- International Indigenous Health
- Chronic Disease: Diabetes, Mental Health, Cardiovascular Disease, Cancer
- Reproductive Health
- Child & Adolescent Health
- Mental Health
- Regenerative Medicine
- Injury Prevention and Trauma Care
- Global Equity, Justice, and Health
- Globalization, trade, and health
- Occupational & Environmental Health
- Health Systems and Strategies Res.
- Implementation science
- Volunteers for Global Health
- Vaccine and Immunization
- Mathematical Modeling
- Nutrition
Aging and global health

- Epidemiologic transition [ID to Chronic dis]
- Respect & dignity vs marginalization
- Chronic diseases, malnutrition, poverty
- Urbanization changing role of elderly
- Worsening social security systems, public support
- Health care systems, health workers not geared for chronic diseases, elderly
- Big problem, little research has been done
**DALYs (Disability Adjusted Life Years)**

Lost in adults, 15-44 y/o

<table>
<thead>
<tr>
<th>Both sexes, 15–44-year-olds</th>
<th>% total</th>
<th>Males, 15–44-year-olds</th>
<th>% total</th>
<th>Females, 15–44-year-olds</th>
<th>% total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HIV/AIDS</td>
<td>13.0</td>
<td>1 HIV/AIDS</td>
<td>12.1</td>
<td>1 HIV/AIDS</td>
<td>13.9</td>
</tr>
<tr>
<td>2 Unipolar depressive disorders</td>
<td>8.6</td>
<td>2 Road traffic accidents</td>
<td>7.7</td>
<td>2 Unipolar depressive disorders</td>
<td>10.6</td>
</tr>
<tr>
<td>3 Road traffic accidents</td>
<td>4.9</td>
<td>3 Unipolar depressive disorders</td>
<td>6.7</td>
<td>3 Tuberculosis</td>
<td>3.2</td>
</tr>
<tr>
<td>4 Tuberculosis</td>
<td>3.9</td>
<td>4 Alcohol use disorders</td>
<td>5.1</td>
<td>4 Iron-deficiency anaemia</td>
<td>3.2</td>
</tr>
<tr>
<td>5 Alcohol use disorders</td>
<td>3.0</td>
<td>5 Tuberculosis</td>
<td>4.5</td>
<td>5 Schizophrenia</td>
<td>2.8</td>
</tr>
<tr>
<td>6 Self-inflicted injuries</td>
<td>2.7</td>
<td>6 Violence</td>
<td>3.7</td>
<td>6 Obstructed labour</td>
<td>2.7</td>
</tr>
<tr>
<td>7 Iron-deficiency anaemia</td>
<td>2.6</td>
<td>7 Self-inflicted injuries</td>
<td>3.0</td>
<td>7 Bipolar affective disorder</td>
<td>2.5</td>
</tr>
<tr>
<td>8 Schizophrenia</td>
<td>2.6</td>
<td>8 Schizophrenia</td>
<td>2.5</td>
<td>8 Abortion</td>
<td>2.5</td>
</tr>
<tr>
<td>9 Bipolar affective disorder</td>
<td>2.5</td>
<td>9 Bipolar affective disorder</td>
<td>2.4</td>
<td>9 Self-inflicted injuries</td>
<td>2.4</td>
</tr>
<tr>
<td>10 Violence</td>
<td>2.3</td>
<td>10 Iron-deficiency anaemia</td>
<td>2.1</td>
<td>10 Maternal sepsis</td>
<td>2.1</td>
</tr>
<tr>
<td>11 Hearing loss, adult onset</td>
<td>2.0</td>
<td>11 Hearing loss, adult onset</td>
<td>2.0</td>
<td>11 Road traffic accidents</td>
<td>2.0</td>
</tr>
<tr>
<td>12 Chronic obstructive pulmonary disease</td>
<td>1.5</td>
<td>12 Ischaemic heart disease</td>
<td>1.9</td>
<td>12 Hearing loss, adult onset</td>
<td>2.0</td>
</tr>
<tr>
<td>13 Ischaemic heart disease</td>
<td>1.5</td>
<td>13 War</td>
<td>1.7</td>
<td>13 Chlamydia</td>
<td>1.9</td>
</tr>
<tr>
<td>14 Cerebrovascular disease</td>
<td>1.4</td>
<td>14 Falls</td>
<td>1.7</td>
<td>14 Panic disorder</td>
<td>1.6</td>
</tr>
<tr>
<td>15 Falls</td>
<td>1.3</td>
<td>15 Cirrhosis of the liver</td>
<td>1.6</td>
<td>15 Chronic obstructive pulmonary disease</td>
<td>1.5</td>
</tr>
<tr>
<td>16 Obstructed labour</td>
<td>1.3</td>
<td>16 Drug use disorders</td>
<td>1.6</td>
<td>16 Maternal haemorrhage</td>
<td>1.5</td>
</tr>
<tr>
<td>17 Abortion</td>
<td>1.2</td>
<td>17 Cerebrovascular disease</td>
<td>1.5</td>
<td>17 Osteoarthritis</td>
<td>1.4</td>
</tr>
<tr>
<td>18 Osteoarthritis</td>
<td>1.2</td>
<td>18 Chronic obstructive pulmonary disease</td>
<td>1.5</td>
<td>18 Cerebrovascular disease</td>
<td>1.3</td>
</tr>
<tr>
<td>19 War</td>
<td>1.2</td>
<td>19 Asthma</td>
<td>1.4</td>
<td>19 Migraine</td>
<td>1.2</td>
</tr>
<tr>
<td>20 Panic disorder</td>
<td>1.2</td>
<td>20 Drownings</td>
<td>1.1</td>
<td>20 Ischaemic heart disease</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*Neuropsychiatric conditions and self-inflicted injuries (see Annex Table 3) are highlighted.*
Africa and Aging

800 million people and the highest rate of growth of the older adult population in the world.

Urbanization and the HIV/AIDS epidemic are changing the traditional role of older adults.

The epidemiological transition from acute infections to chronic diseases is occurring more slowly in Africa than in other continents but it is occurring.

Many older persons are malnourished and live in poverty.

Hypertension, stroke, osteoarthritis, chronic respiratory and mood disorders are expected to increase in incidence and are increasingly being identified in a continent without the resources or infrastructure as yet to mount preventive campaigns and to treat chronic health conditions.

What is known about many older Africans is that they have the capacity to age well through daily exercise and healthy diets low in processed sugar and saturated fats.

Aging Africans are generally regarded with respect and dignity.

There is much that needs to be done to prevent deleterious aging outcomes for older adults in that continent and there is much we can learn about healthy aging and lifestyle prevention.
Thank you