Medical Education Partnership Initiative (MEPI)

Addis Ababa University
College of Health Sciences
Ethiopia

MEPI Annual Symposium
Johannesburg, South Africa
March 7 – 11, 2011
Ethiopia  Popn  = 80 m
84 % live in Rural areas
Per capita GDP is 325 USD
MEPI-E Consortium
- Addis Ababa University, College of Health Sciences
- Defense College of Health Sciences
- Hawassa University, College of Health Sciences
- Haramaya University, School of Medicine

US University Partners
- Emory University, School of Medicine
- Johns Hopkins University, School of Medicine and Public Health
- University of California San Diego, School of Medicine
- University of Wisconsin, School of Medicine, Global Health Program
MEPI Partners

- MEPI meeting to refine work plans - Hawassa Jan 30-Feb 2, 2011
## Health Professionals

### 7.4 Health Professional to Population Ratio by Region, 1999

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Physicians</th>
<th>Physicians &amp; Health officer</th>
<th>Senior Nurse</th>
<th>Senior and Junior Nurse</th>
<th>Environmental Health worker</th>
<th>Health extension worker</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>ratio</td>
<td>No</td>
<td>ratio</td>
<td>No</td>
<td>ratio</td>
<td>No</td>
</tr>
<tr>
<td>Tigray</td>
<td>4,449,000</td>
<td>59</td>
<td>75,407</td>
<td>222</td>
<td>20,041</td>
<td>1,005</td>
<td>4,427</td>
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<tr>
<td>Afar</td>
<td>1,418,000</td>
<td>10</td>
<td>141,800</td>
<td>26</td>
<td>54,538</td>
<td>115</td>
<td>12,330</td>
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<tr>
<td>Amhara</td>
<td>19,624,000</td>
<td>133</td>
<td>147,549</td>
<td>406</td>
<td>48,335</td>
<td>1,253</td>
<td>15,662</td>
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<tr>
<td>Oromia</td>
<td>27,304,000</td>
<td>149</td>
<td>183,248</td>
<td>671</td>
<td>40,692</td>
<td>2,150</td>
<td>12,700</td>
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<tr>
<td>Somali</td>
<td>4,444,000</td>
<td>53</td>
<td>83,849</td>
<td>76</td>
<td>58,474</td>
<td>182</td>
<td>24,418</td>
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<tr>
<td>Ben-Gumuz</td>
<td>640,000</td>
<td>6</td>
<td>106,667</td>
<td>24</td>
<td>26,667</td>
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<td>6,275</td>
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<tr>
<td>SNNPR</td>
<td>15,321,000</td>
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<td>305</td>
<td>50,233</td>
<td>958</td>
<td>15,993</td>
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<tr>
<td>Gambella</td>
<td>253,000</td>
<td>4</td>
<td>63,250</td>
<td>14</td>
<td>18,071</td>
<td>47</td>
<td>5,383</td>
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<tr>
<td>Harari</td>
<td>203,000</td>
<td>41</td>
<td>4,951</td>
<td>52</td>
<td>3,904</td>
<td>217</td>
<td>935</td>
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<tr>
<td>Addis Ababa</td>
<td>3,059,000</td>
<td>118</td>
<td>25,924</td>
<td>131</td>
<td>23,351</td>
<td>396</td>
<td>7,725</td>
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<tr>
<td>Dire Dawa</td>
<td>412,000</td>
<td>31</td>
<td>13,290</td>
<td>39</td>
<td>10,564</td>
<td>12</td>
<td>34,333</td>
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<tr>
<td>Cent, priv, NGO, OGA</td>
<td>1047</td>
<td>1,118</td>
<td>4,822</td>
<td>57</td>
<td>5,715</td>
<td>25</td>
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<tr>
<td>National</td>
<td>77,127,000</td>
<td>1,806</td>
<td>42,706</td>
<td>3,048</td>
<td>25,009</td>
<td>11,252</td>
<td>6,850</td>
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<tr>
<td>WHO standard</td>
<td>1:10,000</td>
<td>1:5,000</td>
<td></td>
<td></td>
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</table>
Total number of doctors in the public sector in Ethiopia in 1985-2006
## Aggregate loss of Ethiopian doctors from public sector between 1987 and 2006

<table>
<thead>
<tr>
<th></th>
<th>Total Number of Doctors graduated</th>
<th>Status as of 2006</th>
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<tbody>
<tr>
<td></td>
<td>Ethiopia</td>
<td>Abroad</td>
</tr>
<tr>
<td>Specialist</td>
<td>929</td>
<td>224</td>
</tr>
<tr>
<td>General</td>
<td>2944</td>
<td>532</td>
</tr>
<tr>
<td>Total</td>
<td>3873</td>
<td>756</td>
</tr>
<tr>
<td>HRH Category</td>
<td>2009</td>
<td>2015</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td>General Practitioner</td>
<td>1,017</td>
<td>10,846</td>
</tr>
<tr>
<td>IESO (New)</td>
<td>(New)</td>
<td>996</td>
</tr>
<tr>
<td>Nurses</td>
<td>20,109</td>
<td>41,009</td>
</tr>
<tr>
<td>Midwives</td>
<td>1,379</td>
<td>8,635</td>
</tr>
<tr>
<td>Anesthesia Professional</td>
<td>188</td>
<td>2,810</td>
</tr>
<tr>
<td>Pharmacy Professional</td>
<td>2661</td>
<td>9,420</td>
</tr>
<tr>
<td>Laboratory professionals</td>
<td>2823</td>
<td>15,330</td>
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Ethiopia University Expansion

11 have SOMs
Medical School in Ethiopia

- **The Former Medical Schools**
  - Addis Ababa University Medical Faculty, 1964
  - Gondar University, Health sciences college: 1954, 1978
  - Jimma University, Collage of health sciences, 1984

- **New Medical Schools**
  - Hawasa University, College of Health Sciences, 2003
  - Mekele University Medical School, 2003
  - Haramaya University Medical School, 2007
  - Millennium Medical School, 2007
  - Bahirdar University Medical College, 2009
  - Dilla University Medical School, 2009
  - Arbaminch University, 2007
  - Defense College of Health Sciences, 2007
Addis Ababa University
College of Health Sciences (AAU, CHS)

1. The School of Medicine
2. The School of Pharmacy
3. The School of Veterinary Medicine
4. The School of Public Health
5. Aklilu Lemma Institute of Patho-biology
6. Tikur Anbessa Specialized Hospital

Vision of AAU-CHS

The AAU College of Health Sciences envisions to be a regional center of excellence in health sciences teaching, research and services that would contribute to a healthy and productive human and animal population.
AAU CHS - HISTORICAL BACKGROUND

- **1964**: Establishment of Schools of Medicine & Pharmacy
  - Pre clinical training at the AAU Main Campus
  - Clinical courses at Princess Tsehay Hospital
- **1979**: Graduate programs in medicine launched
- **2008**: New curriculum approved
- **2010**: Formation of CHS
- Oldest and the largest among the health training institutions in the country
- Staffed with the most senior faculty in all specialties
- Runs the largest tertiary level referral hospital (800 beds) and the largest vet health services in the country
AAU SOM Students M:F

- PPC
- Year I
- Year II
- Year III
- Year IV
- Interns

- Male
- Female
# Medical School enrollment

<table>
<thead>
<tr>
<th>No</th>
<th>Universities</th>
<th>2009/10</th>
<th>2008/9</th>
<th>2008/7</th>
<th>2007/6</th>
<th>2005/6</th>
<th>2004/5</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Addis Ababa</td>
<td>250</td>
<td>380</td>
<td>209</td>
<td>111</td>
<td>101</td>
<td>86</td>
<td>1137</td>
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<tr>
<td>2</td>
<td>Haromaya</td>
<td>188</td>
<td>108</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
<td>362</td>
</tr>
<tr>
<td>3</td>
<td>Hawassa</td>
<td>125</td>
<td>258</td>
<td>110</td>
<td>80</td>
<td>55</td>
<td>37</td>
<td>665</td>
</tr>
<tr>
<td>4</td>
<td>Defense</td>
<td>35</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>Gonder</td>
<td>156</td>
<td>221</td>
<td>177</td>
<td>122</td>
<td>82</td>
<td>65</td>
<td>823</td>
</tr>
<tr>
<td>6</td>
<td>Adama</td>
<td>150</td>
<td>110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>260</td>
</tr>
<tr>
<td>7</td>
<td>Jimma</td>
<td>207</td>
<td>218</td>
<td>147</td>
<td>118</td>
<td>151</td>
<td>83</td>
<td>924</td>
</tr>
<tr>
<td>8</td>
<td>Mekele</td>
<td>146</td>
<td>252</td>
<td>150</td>
<td>27</td>
<td>81</td>
<td>65</td>
<td>721</td>
</tr>
<tr>
<td>9</td>
<td>Bahir Dar</td>
<td>106</td>
<td>108</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td>286</td>
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<tr>
<td>10</td>
<td>St Paul M/M school</td>
<td>127</td>
<td>42</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td>202</td>
</tr>
<tr>
<td>11</td>
<td>Arbaminch</td>
<td>62</td>
<td>51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>113</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1552</strong></td>
<td><strong>1783</strong></td>
<td><strong>964</strong></td>
<td><strong>458</strong></td>
<td><strong>470</strong></td>
<td><strong>336</strong></td>
<td><strong>5563</strong></td>
</tr>
</tbody>
</table>
## Faculty : student ratios

<table>
<thead>
<tr>
<th>Faculty</th>
<th>AAU</th>
<th>Defense</th>
<th>Hawassa</th>
<th>Haramaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Associate Prof</td>
<td>51</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Assist Prof</td>
<td>154</td>
<td>36</td>
<td>34</td>
<td>10</td>
</tr>
<tr>
<td>Lecturer</td>
<td>38</td>
<td>50</td>
<td>50</td>
<td>21</td>
</tr>
<tr>
<td>Assistant Lecturer</td>
<td>-</td>
<td>50</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Grad Assist II</td>
<td>7</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Grad Assist 1</td>
<td>12</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Faculty</strong></td>
<td>267</td>
<td>137</td>
<td>89</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total Students</strong></td>
<td>2626</td>
<td>413</td>
<td>703</td>
<td>509</td>
</tr>
<tr>
<td><strong>Ratio</strong></td>
<td>1:10</td>
<td>1:3</td>
<td>1:8</td>
<td>1:16</td>
</tr>
</tbody>
</table>
Mission Statement

- AAU MEPI program will work to dramatically transform medical education by increasing the number of qualified health care providers available and by developing scientific expertise needed for research and innovation through partnership with three regional and four international universities.

- The program strives to improve medical education and retention of the health workforce consistent with the mission of the Federal Ministry of Health and Education which overall will significantly impact the health status of Ethiopians.
1. Improvement of the medical education system

- Increase number of physicians & quality of medical education via:
  - Support the MOH’s rapid expansion of medical schools and graduates
  - Develop Medical Ed Units (MEUs) at all sites
  - Implement a modified approach to teaching using IT-supported, skills-based & simulation training
1: Improvement of the medical education system

- Early clinical contact thru **longitudinal continuity clinics in community** - training in chronic care, HIV, TB & malaria
- Strengthen rural training sites
- Train in **Multidisciplinary clinical practice teams** that embody task-sharing & shifting
- Education evaluation (360 degree)
2. Human capacity building and retention

- AAU partners share faculty and curriculum with new SOMs
- Pedagogical, mentorship, and research training for medical faculty
- Develop a *clinical educator track* and mentorship in career development
- Advanced training in specialties relevant to PEPFAR such as ID, Pulm
- HIV specialist certificate for GPs, HOs
- New residency – Fam Med & EM
3: Enhancement of research and bio-ethics capacity

- Develop capacity & opportunities to conduct clinical, public health, and operations research via:
  - Modular and computer-based courses in research methodology
  - Clinical epidemiology and bio-ethics units (CEUs)
  - Training clinical and basic sciences core faculty in research mentorship
  - Strengthening and training of local IRBs
MEPI Partners / Stakeholders Meeting – Jan-Feb 2011
US Partners Roles

Johns Hopkins Univ.

- Support: e-learning &
- Longitudinal continuity clinic
- Clinical Skills Labs & standardized patients
- ID fellowship
- Evaluation support
- IRB strengthening

UCSD

- Enhancement of clinical research capacity
  - 2 year computer supported research training
- Support Defense College of Health Sciences
US Partners Roles

Emory University
- MEPI Scholars Research program
- OB/GYN and MCH training
- Support to new sub-specialty fellowships

University of Wisconsin
- Support multidisciplinary clinical practice teams
- Operating room management
- Female faculty leadership & promotion
- Promotion of specialties
  - Emergency Medicine
  - Family Medicine
Collaboration Between MOH, MOE and Other Agencies

- Very similar goals as National HRH plan from MOH and MOE
- Working in higher education institutions; AAU mandated to supply trained faculty to new medical schools
- Opportunities to share approaches, methods, training curricula, e-learning materials
- Advocacy for reform of National Ministries & academic administrative structures to support research
AAU – JHU joint training of Med Students in MNCH – Feb 2011
MEPI-Ethiopia Projected Outcome

• Year One
  ▶ Establish MEPI offices and Medical Education Units (MEUs)
  ▶ Train 48 medical faculty on curriculum methodologies
  ▶ Establish clinical epidemiological units and bio-ethics units (CEU’s) at all four universities
  ▶ Organize IRB office at AAU and establish IRB offices at Defense, Hawassa and Haramaya Universities

• Year Three
  ▶ > 300 students entering medical schools each year at AAU and consortia universities
  ▶ Medical educators trained pedagogical skills and research
  ▶ Female medical faculty increased 10%
  ▶ Relevant research projects underway
MEPI-Ethiopia Projected Outcome

- Year Five
  - Increase number of medical graduates by 50%
  - Reduce students attrition from 12 -15 % $\rightarrow < 5$
  - 75% of faculty at all four medical schools implementing new programs, curricula and teaching methodologies
  - Expansion of peripheral field training sites at all four universities
  - Enhanced publications record by faculty at all universities
  - Tracking of graduates in field
Thank You!!