INDEPTH/ WITS Scientific and Leadership Development Initiative

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Background

INDEPTH identified the need:

• To develop the next generation of Scientific Leadership in INDEPTH sites and the Public Health Research Community in developing countries.
• To optimise the use of DSS data by local scientists.
INDEPTH proposed an implementation strategy:

- Postgraduate course in Population-based Field Epidemiology
- Partnership with a selected university
- Develop capability and infrastructure in selected INDEPTH learning sites
- Partnerships for course development, DSS site attachment and funding.
MSc in Population-based Field Epidemiology

- Offered since January 2005
- 18 months full-time programme
- 12 months for course work at Wits and Agincourt, a study DSS site
- 6 months for field attachment
- Minimum requirements – 4 years bachelor degree and relevant work experience
- Competitive selection
## Design of MSc programme

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Jan - May</th>
<th>June</th>
<th>July - Sept</th>
<th>Oct - Dec</th>
<th>Jan - June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orientation</td>
<td>•Orientation</td>
<td>Midterm exam</td>
<td>Advanced coursework</td>
<td>Final exam in October</td>
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<tr>
<td>•Basic coursework</td>
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<td>Midterm exam</td>
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<td>Advanced coursework</td>
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<td>Final exam in October</td>
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</table>

| Research protocol development       |                 |                 |                 | •Protocol development    |                 |
| •Protocol development               |                 |                 |                 | •Submit protocol to Wits assessor group and ethic committee |                 |
| •Meeting with site supervisors      |                 |                 |                 | •Protocol approval       |                 |
| Field attachment training           |                 |                 |                 |                           | •Orientation    |
| •Orientation                        |                 |                 |                 | •Conduct research         |                 |
| •Conduct research                   |                 |                 |                 | •Service learning         |                 |
| •Service learning                   |                 |                 |                 | •Submit report            |                 |
| •Submit report                      |                 |                 |                 |                           |                 |
Curriculum structure:

- Five arms:
  - Epidemiology
  - Biostatistics and Data Management
  - Demography and other Social Sciences
  - Relational data and management of DSS data
  - Leadership
• Integrated field component:
  – Course work at Agincourt DSS
  – Assignment of demography module
  – Research project at DSS learning site
  – Management and leadership internship at DSS learning site
Field trip at Agincourt
Uniqueness of course:

- Substantial field based training at DSS sites
- Mixed mode of teaching
- Develop expert skills in dbase management
- Integrate quantitative and qualitative training methods
- Nurture scientific leadership among young developing-country researchers with initial focus on Africa
Teaching room with data server at Agincourt office (Tintswalo)
Coursework evaluation

• 20 modules in total for five disciplinary arms
• Students’ evaluation: (on the structure and content of the course)
  – “The course content is relevant, useful and rich”;
  – “Focused on how to conduct good research and working in a health research institution”
  – “It is more focused and addresses what we expect in the work environment”;
  – “The mix of demography, biostatistics and epidemiology in this course gives a broad perspective and admirable exposure. Such exposure gives a wide opening in formulating informed future areas of specialization”.
  – “Too many modules for a year”;
  – “Introduction to management theory and practice is not useful to my work”;

The role of DSS learning sites:

- Three learning sites:
  - Navrongo HRC (Ghana)
  - Ifakara HRC (Tanzania)
  - African Center (KwaZulu-Natal, South Africa)
- Supervise research project
- Provide guided internship for leadership training
Requirements for DSS learning sites

• Capacity and availability of senior researcher/s for supervising student’s research and mentoring
• Availability of data for student’s research
• Facilities for student – such as accommodation, office, computer, internet, in-house library, transport
• Administrative support
## Number of applicants and enrolment for Wits Masters programme

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th></th>
<th>2006</th>
<th></th>
<th>2007</th>
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<td>%</td>
<td>n</td>
<td>%</td>
<td>N</td>
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<tr>
<td>Total Applicants</td>
<td>21</td>
<td></td>
<td>20</td>
<td></td>
<td>20</td>
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</tr>
<tr>
<td>Met Wits entry criteria and offered a place</td>
<td>8</td>
<td>8/21 (38%)</td>
<td>9</td>
<td>9/20 (45%)</td>
<td>11</td>
<td>11/20 (55%)</td>
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<tr>
<td>Applicants from DSS</td>
<td>11</td>
<td>11/21 (52%)</td>
<td>9</td>
<td>9/20 (45%)</td>
<td>11</td>
<td>11/20 (55%)</td>
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<tr>
<td>Accepted DSS applicants</td>
<td>5</td>
<td></td>
<td>7</td>
<td></td>
<td>9</td>
<td></td>
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<tr>
<td>INDEPTH sponsored</td>
<td>5</td>
<td>5/5 (100%)</td>
<td>6</td>
<td>6/7 (86%)</td>
<td>5</td>
<td>5/9  (55%)</td>
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<tr>
<td>INDEPTH sponsored students withdraw</td>
<td>1</td>
<td></td>
<td>0</td>
<td></td>
<td>1</td>
<td></td>
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<tr>
<td>INDEPTH funded students</td>
<td>4</td>
<td></td>
<td>6</td>
<td></td>
<td>4</td>
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<tr>
<td>TDR and other sponsored students</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
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<tr>
<td>Total enrolled students</td>
<td>5</td>
<td></td>
<td>8</td>
<td></td>
<td>6</td>
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<tr>
<td>Year</td>
<td>8/5 Students</td>
<td>9/8 Students</td>
<td>11/6 Students</td>
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<td>2005</td>
<td>Navrongo DSS, (1/1) Ghana</td>
<td>Navrongo DSS, (3/2) Ghana</td>
<td>Navrongo DSS, (2/1) Ghana</td>
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<tr>
<td></td>
<td>Kintampo DSS (2/1) Ghana</td>
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<td>Kintampo DSS, (1/1) Ghana</td>
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<td></td>
<td>Kisumu DSS, (1/1) Kenya</td>
<td>Kisumu, (1/1) Kenya</td>
<td>Kisumu, (2/1) Kenya</td>
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<td></td>
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<tr>
<td></td>
<td>African Population and Health Research Centre, (1/1) Kenya</td>
<td>African Population and Health Research Centre (1/1) Kenya</td>
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<tr>
<td></td>
<td>Vadu DSS (1/1) India</td>
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<td>Papua New Guinea DSS (1/1)</td>
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<td></td>
<td>Fila Bavi DSS (1/1) Vietnam</td>
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<td>Chililab (1/0) Vietnam</td>
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<td></td>
<td>Public Health Department, Tropical Diseases Research Centre, Ndola, Zambia (1/1)</td>
<td>Biomedical research and training Institute. Harare, (1/1) Zimbabwe</td>
<td>Hanoi, School of Public Health/ Chililab (1/0) Vietnam</td>
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<td></td>
<td>Red Cross Society, Ibadan, (1/0) Nigeria</td>
<td>National Commission for Social Action, Makeni, (1/1) Sierra Leone</td>
<td>University of Calabar, (2/1) Nigeria</td>
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<td></td>
<td>Nairobi, (1/0) Kenya</td>
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Completion by year of intake

<table>
<thead>
<tr>
<th>Year</th>
<th>Intake</th>
<th>Timely completion for course work</th>
<th>Timely Completion of thesis</th>
<th>Late completion of thesis</th>
<th>Graduated</th>
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</thead>
<tbody>
<tr>
<td>2005</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2006</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>seven are waiting for examiners report on research thesis and will graduate in December 2007</td>
</tr>
<tr>
<td>2007</td>
<td>6</td>
<td>On-going</td>
<td>-</td>
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Building Alumni
Discussion

• programme has so far achieved its goals
• the curriculum of all coursework and the integrated field attachment component were fully developed and tested
• programme established a strong relationship between the WSPH and the three learning DSS sites
• South to South as well as South to North linkages for capacity building in research and scientific leadership were strengthened
South-South and South-North Links
Progress

- one student presented his research paper at the 2006 AGM conference
- two papers and four posters presented at the 2007 AGM
- site supervisors of all three learning DSS sites were appointed as honorary staff members of WSPH
- the number of co-supervisors from the learning DSS sites for student research was increased
- Dr Cornelius Debpuur from Navrongo was nominated for the exchange staff programme by the Association of African Universities/DAAD
Challenges

• have not trained as many students as anticipated
• the programme is very staff time intensive from both an academic and administrative point of view
• to make the course more cost effective, recruit a larger number of students from a bigger range of DSS sites from different countries
• will require a larger number of field placement DSS sites to be involved or that existing sites take a larger group of students
Sustainability issue

• Recruit sufficient number of students to sustain the academic programme at Wits

• We need to secure funding to sustain the programme in Africa, e.g.
  – To increase number of fellowships
  – To support the programme cost (Wits/DSS staff annual meeting etc)
  – To further invest in the digital lecture hall to offer a vehicle for an ongoing training based in DSS sites
  – Re-entry research grants for recent graduates.
Evaluation of the programme by the DSS site leaders at AGM (2007)

- 74% (25 out of 34 DSS) replied.
- 68% of the DSS said they need this training.
- The number of students need to be trained ranges from 1 to 15 per site.
- However, 80% (20 DSS) said they had problems to send students mainly because of not having suitable candidates; eligible staff are essential for running DSS and English language proficiency.
- 13 DSS (including Asia DSS and Africa Francophone DSS) said they are willing to be one of the learning sites.
Application for 2008 academic year

- Extended closing date - end of September 2007
- Visit the website [www.wits.ac.za/publichealth](http://www.wits.ac.za/publichealth)
- Motivation letter from the candidate
- Two referees
- Application form for Wits accommodation
- Send directly to Post graduate office and to
- Also send cc to khin.tint@wits.ac.za or lawrence.mpinga@wits.ac.za