



## INDEPTH Scientific Development and Leadership Programme

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The Scientific Development and Leadership programme is the flagship of INDEPTH's capacity strengthening initiatives. This programme has the following components:

- MSc. in Population-based Field Epidemiology (PBFE) at Wits University, South Africa
- MSc. in Research Database Management (RDM) at Wits University, South Africa
- MPH at the James P. Grant School of Public Health, BRAC University, , Bangladesh
- Masters training elsewhere considered relevant to the programme may be supported
- Relevant short courses may be supported
- PhD training support at South-base institutions or sandwich programmes

The key objectives of the Scientific Development and Leadership Programme are to:

- develop a genre of scientists from INDEPTH member centres and elsewhere through practical on-the-job training in a unique Masters programme that combines epidemiology, biostatistics, demography and other social sciences with a focus on demographic and health surveillance in developing countries; and
- produce graduates from the programme capable to:
  - identify key biomedical and public health problems that may be addressed by epidemiological or demographic studies and design solutions to those problems;
  - have the appropriate analytical skills and understand, plan and execute field-based scientific research;
  - have good communication skills to make research results understandable to diverse audiences;
  - have negotiating power to engage external collaborators;
  - compete effectively for international resources, and;
  - assume leadership roles at their workplaces.

### *1. Masters Course in Population-based Field Epidemiology (PBFE)*

Established in 2005 in partnership with the Wits School of Public Health, University of the Witwatersrand (Wits), in Johannesburg, South Africa, this programme is built around an 18-month Master training in Population-based Field Epidemiology. The training covers the following key areas: epidemiology; biostatistics and data management; demography and other social sciences; information technologies for demographic and health surveillance; research ethics and leadership training with a

substantial amount of field-based training at one of three INDEPTH-Wits accredited field learning centres. The programme consists of two main components: one year of coursework and six months of practical training on the conduct of a research project in a field setting at one of the INDEPTH-Wits accredited HDSS learning centres. The students submit their research papers produced during practical training for final assessment in partial fulfillment for the MSc degree.

Since 2005 the learning centres have been HDSSs run by: Africa Centre (South Africa), Ifakara Health Institute (Tanzania), and Navrongo Health Research Centre (Ghana). Two new accredited field attachment learning centres are: Nairobi (APHRC Kenya) and Vadu (KEM Hospital India). These centres hope to start hosting MSc students in 2015 and 2016 respectively.

## *2. Masters Course in Research Database Management (RDM)*

INDEPTH identified the urgent need to increase and strengthen capacity in advanced database management for research to sufficiently support and match the ever increasing health research in low- and middle-income countries (LMICs). This new MSc programme in Research Database Management (RDM) was officially launched in 2014 at the Wits School of Public Health to develop research data management as a specialist qualification with specific reference to large longitudinal studies. The RDM training is embedded into the existing Masters programme in Epidemiology. The new training exposes data managers to statistical techniques that are typically used to analyze the longitudinal data they manage and will enable them to properly frame the data extractions and make decisions in ways that improve the analysis.

The data scientists graduating from the MSc (RDM) programme will be capable of interacting with scientists throughout the various phases of a research project; leading data management teams; as well as ensuring integrated data management activities from data collection, entry, processing to analysis and publication including the development of data structures and application of data management software. Like the MSc (PBFE) training, the MSc (RDM) training consists of two main components: one year of coursework and six months of practical training on the conduct of a research project in a field setting at one of the INDEPTH-Wits accredited HDSS learning centers. . The student then submits the research paper so produced during practical training for final assessment in partial fulfillment for the MSc degree.

### The application and selection process for Wits MSc Programme (Both PBFE and RDM)

The selection into the two MSc programmes at the University of the Witwatersrand (Wits), Johannesburg South Africa is done at two levels: at the level of Wits University (decides on admissibility to the program); and at the level of INDEPTH (for sponsorship).

First, all interested prospective students at HDSS member centers apply directly to Wits. The later decides on their suitability for admission into the programme based on the selection criteria in

accordance with Wits procedures for graduate (Masters) studies. ONLY those accepted for admission into the programmes are recommended to INDEPTH for consideration for sponsorship.

Once INDEPTH receives the list of those accepted for admission each year, we first identify the accepted applicants from member HDSSs. Thereafter we consider how many can be funded for the cycle (batch) based on available resources. For instance, assuming Wits sends us 12 accepted students to consider but we can only fund 4, we will rank the accepted applicants in order of priority based on a combination of factors and select the four to be funded.

The factors often considered include (**but not limited to**) the following:

- Applicant's HDSS of Affiliation: In particular the number of past students (times) we have funded or not funded a candidate from the member HDSS with priority given to those from HDSSs that have not been funded before, or have the least number of past funded students.
- For a given cycle (batch/year), we only **fully fund one** accepted candidate per member center
- Gender (preference to accepted female candidates where they exist and meet other criteria)
- Country/sub region of origin and member HDSS with priority given to countries/HDSSs that have not benefited from the programme
- Qualification and current position as well as years/length of service at respective HDSS
- Age (with preference to young adults/scientists; i.e. the person should be aged **below 40 years old**<sup>1</sup> at time of completion of training)
- Commitment by the student to return to his/her HDSS to serve for at least 3 years

### Letter of support from centre leader

The last and crucial consideration for selection of each candidate is a letter of support from their respective centre leader guaranteeing that the candidate will be accepted to return to his/her position upon completing the training.

### Deadline for application for sponsorship

Accepted students must submit applications for sponsorship accompanied by the following:

- Copy of offer letter from Wits
- Recent CV (including information on age, years at HDSS, last qualification/current position)
- Commitment to return to home HDSS to serve for at least a couple of years

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<sup>1</sup> However, under some exceptional circumstances and granted there is some justification from the student and/or strong recommendation from the respective center leader, we can make a special concession to those aged 40, by providing partial support for their training. In such a case, the center or candidate must demonstrate that s/he has been able to secure some level of partial funding for the training. Basically, in such cases:

- For those aged up to 40 years but less than 41 years, we can contribute up to 50% for their training
- For those aged 41-44 years, we may contribute up to 25% for their training

Even in such cases, we will give preference to applicants from centers that have not benefitted from any support, especially in the current cycle and/or to female applicants.

- Support letter from center leader

Complete applications must be received at INDEPTH Secretariat by **October 15**, each year

*Review of applications and decision:* November 15,

*Award letters and travel arrangements:* November 30

**NB:** It must be noted that submission of an application for funding does not automatically qualify any applicant for INDEPTH funding.

### *3. Support for MPH at James P. Grant SPH and other relevant Masters' Training Elsewhere*

In addition to the training programmes developed in partnership with the Wits School of Public Health, INDEPTH is constantly exploring other competitive avenues for expanding the training options for the staff of member centers, especially at select South-base Universities. Some of the options that have been tried recently include the MPH program (international) at James P. Grant School of Public Health, BRAC University, Dhaka Bangladesh; Masters training in Health Economics and Health Care Management in Bangkok Chulalongkorn University Thailand; Masters' training at School of Public Health at the University of Ghana, Legon, etc. Meanwhile other avenues are still being identified.

The James P. Grant School of Public Health in particular offers tuition waiver to candidates from developing countries who are required to pay subsidized fees. Besides, scholarships are available based on need, merit and other selection criteria. For INDEPTH researchers (particularly young scientists) admitted and offered the fee waiver, the Secretariat considers the possibility of supporting one or two (paying airfare and difference after waiver) to join the Program.

### Application and selection procedures

As is the case with the Wits programme, all interested prospective students at HDSS member centres apply directly to the respective programme and/or school which decide on their suitability for admission into the programme based on their respective admission criteria. ONLY those accepted for admission can then apply to INDEPTH to be considered for sponsorship.

Accepted students must submit personal applications for sponsorship accompanied by the following:

- Letter of motivation that clearly explains the usefulness of the training to candidate and centre
- Copy of offer letter from the University/school and evidence of partial sponsorship or scholarship as well as outstanding fees or support requested
- Recent CV (including information on age, years at HDSS, last qualification/current position)
- Commitment to return to home HDSS to serve for at least a couple of years
- Support letter from center leader that clearly underscores the relevance of the training to centre

#### *4. Relevant Short Courses*

The Secretariat from time to time supports HDSS scientists to attend relevant short courses at IPSR at Mahidol University in Bangkok Thailand and at other partner universities and/or in collaboration with partner training and research institutions. Most of such short courses (of one or two week's duration) are usually organized in response to the needs of member HDSS centers.

#### *5. Support for PhD Studies*

The Secretariat also tries to facilitate movement from MSc to PhD level training. Indeed, we are fully committed to assisting staff from INDEPTH member centres that are registered for PhD Programmes (either in their home country or for Sandwich programmes) by providing partial support to facilitate the completion of their training in record time. However, due to limited resources we often give preference to those who are almost close to completing their training or are just in need of partial support to carry out their field research.

#### Application for PhD Support

As implied above, applications for partial support are welcomed from those who have registered for PhD training in their home country and/or for sandwich PhD programmes, especially those well advanced into the training programme.

Interested candidates must submit personal applications for partial sponsorship accompanied by (but not limited to the following):

- Letter of admission from school specifying conditions of admissions, etc.
- Letter of support and/or recommendation from PhD advisor
- A Recent Curriculum Vitae
- Succinct description of the proposed PhD study or research topic
- Support letters from center leader with commitment to retain student after the training.
- Commitment to return to home HDSS to serve for a couple of years