

## REQUEST FOR PROPOSALS

### Options to Address Capacity and Skills Building Needs for Effective Data Management and Sharing in Low and Middle Income Countries

*Proposals due by 5pm on Friday February 15, 2013*

#### INTRODUCTION

There is a widely acknowledged need to develop capacity and skills, in both technical and administrative areas, to enable the effective management and sharing of public health research data including<sup>1</sup>:

1. Database design and development, particularly for longitudinal data sets
2. Proficiency using structured query language (SQL) to construct queries for data extraction
3. Familiarity with data linkage techniques and considerations
4. Understanding of commonly used statistical and analytical techniques
5. Knowledge of how to conduct data quality assurance including the ability to detect and correct data errors
6. Knowledge about metadata standards
7. Configuration and maintenance of data repositories
8. Data curation
9. Knowledge about data citation mechanisms and their application to shared datasets.

Shortages in key skillsets required for data management, analysis and preservation exist in all parts of the world, but are especially acute in resource-limited low and middle income countries (LMICs). Building and sustaining capacity in these areas is critical in ensuring that research efforts in LMICs are able to benefit equitably from the opportunities afforded by greater access to public health research data.

The **Public Health Research Data Forum** is a group of major international funders of public health research dedicated to increasing the availability of research data generated through their funding in ways that are equitable, ethical and efficient ([www.wellcome.ac.uk/publichealthdata](http://www.wellcome.ac.uk/publichealthdata)). On behalf of the Public Health Research Data Forum, the Hewlett Foundation wishes to commission an independent consultant to develop an “options paper.” This work will involve compiling an inventory of existing training and capacity building activities relevant to management and sharing of public health research data, assessing labor market dynamics for people who possess relevant expertise, and appraising current challenges and gaps. Based on this analysis, the consultant will identify a range of options through which funding agencies could build on their existing activities to develop and retain key skillsets needed to enable data management and sharing in research institutions.

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<sup>1</sup> Osman, S. & IJsselmuiden, C. (2011). Sustainable data sharing in public health research: An INDEPTH-COHRED position paper. Retrieved October 9, 2012 from [http://www.indepth-network.org/index.php?option=com\\_content&task=view&id=1262&Itemid=595](http://www.indepth-network.org/index.php?option=com_content&task=view&id=1262&Itemid=595)

## OBJECTIVES

The work has four key objectives:

1. To establish an inventory of training programs and resources currently available to build capacity and skills of dedicated data managers, and to foster the development of best practices for data management and sharing within the wider public health research community.
2. Describe the job opportunities for skilled data managers in LMIC and the extent to which training in this subject matter leads to higher returns in the labor market.
3. To identify the key gaps in existing provision of training and career development opportunities, and major barriers to developing and retaining key skillsets in research institutions.
4. To develop and appraise options for enhancing funder support to address capacity needs for effective data management and sharing in LMIC.

## DESCRIPTION OF THE WORK

The work consists of two phases:

Phase 1 - Review of current data management training and job opportunities and identification of key gaps and challenges in existing provision. This should include opportunities specifically targeted at public health research and related areas such as demography and the social sciences. The extent to which leading employers provide training as a benefit and, if so, the types of training offered, mechanism by which it is offered (e.g., in house or elsewhere), etc., should also be explored. Other considerations include: what financial and other constraints (e.g., ability to obtain student visas) may affect accessibility to training and the extent to which the training programs identified are truly useful for those who participate. The latter should entail an examination of both the quality of the trainings and whether and how knowledge and skills acquired by participants are applied to their day to day work. It is envisaged this phase of the work will involve desk research and interviews with key stakeholders including existing training providers and participants, researchers, funders, institutional representatives and other experts.

Phase 2 - Development of a series of options for funders to address the key gaps and challenges identified in Phase I. A wide range of mechanisms should be explored including:

- Development of regional training hubs – centres of excellence that could provide training (in-house or via e-learning resources) to data managers and researchers in the region.
- Dedicated funding to address key skills gaps – such as career support for data managers, developing new or existing short courses, or establishment of dedicated posts at research institutions.
- Integration of support into research grant support – including funds to support capacity building as an integral part of grant support, incorporating support for writing and data analysis workshops, and so forth.
- Establishment of professional accreditation and networks for specialist data managers.

## QUALIFICATIONS

The consultant(s) should have expertise in the management, analysis, and preservation of research data and capacity building in LMICs. Extensive experience working in public health and epidemiology research fields is highly desired.

## DELIVERABLES

The key deliverables include:

1. A short summary report, with an annexed inventory of existing training and capacity building programs. The report will be disseminated to all members of the Public Health Research Data Forum and published as a resource for the wider community via the initiative's website.
2. Presentation of findings (via Webinar or Phone) to members of the Public Health Research Data Forum.

## ANTICIPATED TIMETABLE

The consultancy will commence in March 2013 and is expected to last no more than five months.

Activity	Deadline
Agreement of final work plan between consultant(s) and Hewlett Foundation staff	March 2013
Draft report to be shared with a small expert steering group	June 2013
Final report and presentation	July 2013

## BUDGET

A maximum budget of \$100,000 (fully inclusive of relevant taxes) is available for this work.

## APPLICATION PROCESS

A written proposal, not to exceed ten pages including a budget, should be sent by email to Shayna Cunningham ([scunningham@hewlett.org](mailto:scunningham@hewlett.org)) **no later than 5pm on Friday February 15, 2013.**

Proposals should include the following information:

- A brief company overview including experience undertaking consultancies of a similar nature.
- Details of the consultant(s) who would be undertaking the work and roles on the project.
- A description of the proposed methodology, workplan and timeline that would be used to deliver the project aims.
- A detailed budget (maximum \$100K). The budget should document how the proposed number of staff hours was determined as well as other major budget items.
- A contact name, location and telephone, fax and email details.

Please submit any questions about this request for proposals via email or phone to Shayna Cunningham ([scunningham@hewlett.org](mailto:scunningham@hewlett.org); 650-234-4500, ext. 5758).