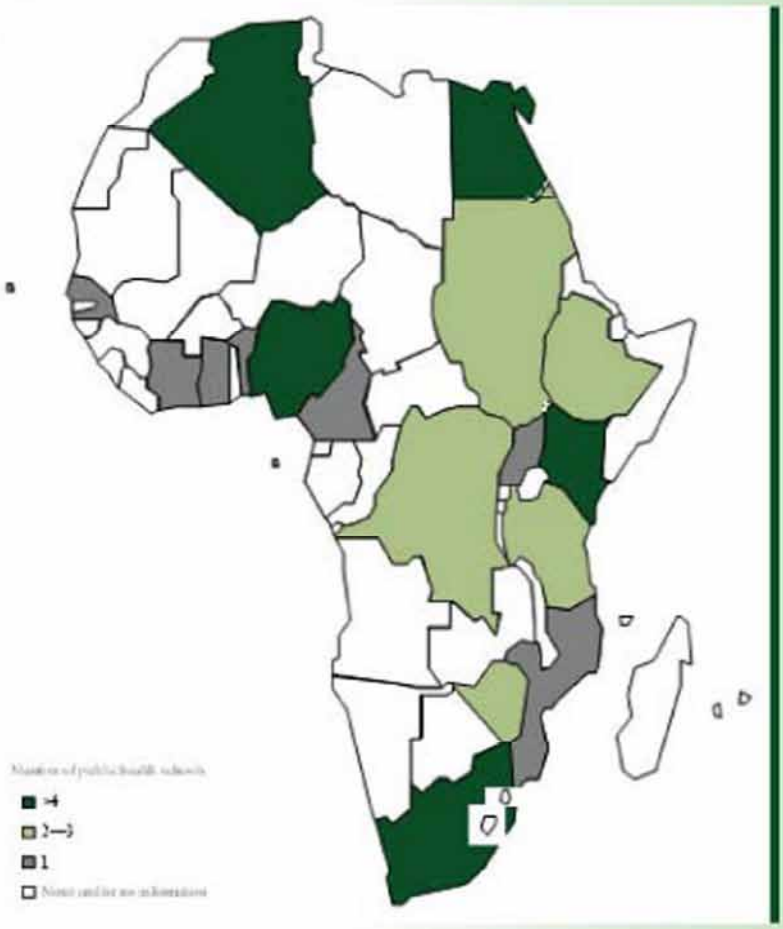
Meeting of African Schools of Public Health

Final Report of the AfriHealth Project, Phase 1



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Related publications and resources are located at http://www.cohred.org/AfricaSPH

- Principles of Good Partnerships for Strengthening Public Health Education Capacity in Africa
- Mapping Africa's advanced public health education capacity
- Database of Africa Schools of Public Health

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Contents

Executive Summary

Health, health care and health systems across Africa remain in a fragile state. Ever more interventions require the presence of strong health systems. Yet, Africa is not training its own human resources needed to manage and develop its health systems and to provide governance and leadership for population health. In this aspect, Africa remains at the mercy of international planning and global health partnerships**.**

Graduate education in governance of management of health systems and population health, as typically is provided in Schools of Public Health, is not well developed in Africa, and Schools of Public Health are not contributing adequately to building strong health systems and better population health for many reasons that are described in the AfriHealth paper at the end of this report : WHO Bulletin 2007; 85: 914-922 (see Appendix 4), the most important of which are:

- ***There are simply too few Schools of Public Health and too few qualified faculty,*** especially in Francophone and Lusophone countries;
- ***The departments and schools are mostly too small*** to allow for critical mass development in areas needed for health system and population health support;
- ***Schools and departments tend to be conceived in terms of local needs rather than public health excellence that may have impact beyond national borders***;
- ***Too many schools / departments of public health offer graduate education in health systems and public health only to health professionals***; no school or departments partner with business schools or departments of economics, for example;
- ***Graduate education in public health is inadequately linked to research, evidence generation and innovation*** in health systems and population health;
- At the same time, ***there are great schools, great programmes, and great examples on which to build*** across the continent, and in specific, there is:
  - A rapid growth in multi-disciplinary degrees: especially MPH programmes
  - A growing interest in multi-disciplinary schools *(South Africa, Uganda, Tanzania, Ghana, and Egypt already have major schools, and more are being started).*

This meeting brought together key people and initiatives struggling to make advanced public health education work for Africa. The overall findings were that:

- There is a great need for and interest in ***establishing and strengthening networking / networks / clusters of institutions or collaborative centres of excellence*** to:
  - Facilitate **standardization, accreditation of courses and building a comprehensive human resources plan and strategy**;
  - Assist in **capacity sharing**, especially between Anglophone countries on the one hand and Francophone and Lusophone countries on the other hand;
  - Such network/networking could be **national** (for large countries), **regional / multi-country** (to align with regional economic groupings) or **continental** (to share capacity across language regions and to create an 'African voice in public health');
  - There are solid examples of effective national (PHASA) and regional (LIPHEA) networking / collaboration already that can be strengthened or be used elsewhere;
- There is an **urgent need for information tools and technologies** to increase access to resources available in other institutions and countries;
- Schools of public health, in their current development, should **focus more on outcomes and impact than only on creating 'standard academic coursework'** – faculty and students from a diverse background, research, innovation, and an underlying value system based on excellence and relevance will be key to new and developing schools;
- There is a **need for 'good donorship and good partnership'** to ensure that Public Health in Africa achieves its full potential in the governance and management of health and health systems: including **substantial, continuous and long-term funding of some** (4 -7) **credible institutions / networks / centres of excellence across Africa**, given in a manner that helps put Africa in control of its own health systems.

1. Introduction

Prof Thomas Nchinda

This meeting was organized to coincide with the First Joint East Africa Public Health Association/ Tanzania Public Health Association Scientific Conference held in Arusha from 4 – 9 November 2007.

All participants were welcomed to this one day meeting that started at 9.00am on Saturday 10 November 2007. In declaring the meeting open, Prof Nchinda explained that it this meeting was the culmination of a series of activities that started in 2001 with a grant from the Rockefeller Foundation to map public health capacity in and for Africa. He explained that the meeting would be co-chaired by himself, epidemiologist and retired member of staff of the WHO/Tropical Disease Research programme, who has been involved with the AfriHealth project from the early years, and professor Carel IJsselmuiden, current director of COHRED (Council on Health Research for Development) who was also the former director of the School of Health Systems and Public Health, University of Pretoria, and the project director of AfriHealth.

Hard questions would be asked and, hopefully, answered. Public Health in Africa is rather weak with some professions dominating. How should we collaborate? What is the role of networking – given past experiences of total failure? Is there a need for a pan African Association of Schools of Public Health, or would regional associations be the route of choice? How substantial must the association be – is the American Association of Schools of Public Health a model with its implied costs and infrastructure needs?

The main purpose of this meeting was to bring together public health professionals from across Africa to discuss the findings of this final report of the AfriHealth project ("Phase 1") and to consider how the findings could be taken further to assist in the development of advanced Public Health education in Africa.

The meeting was designed as an interactive workshop with a some key presentations and ample time to discuss findings and exchange views on how to proceed. Derrick Wong was introduced as facilitator of the meeting. Mr Wong is an organisational development consultant who volunteers his expertise to COHRED and agreed to facilitate this meeting.

The draft agenda for the meeting along with timelines were presented and approved. A copy of the agenda is attached as Appendix 1. Prior to this meeting, preparatory reading materials were provided to all participants (participants and apologies are listed in Appendix 2). Pre-readings consisted of the original AfriHealth project proposal on the basis of which funding was received from the Rockefeller Foundation in 2001 (Appendix 3) and the latest AfriHealth report published in the WHO Bulletin (Appendix 4).

Prof Nchinda wished all a fruitful meeting and expressed his hopes for action in public health education in Africa as a result of this project.

2. Expectations of participants

All participants

Participants were invited to make extended personal introductions emphasizing their background in public health practice and education, their current employment and activities, and their expectations of this meeting. The list of participants is provided in Appendix 2.

Key expectations and suggestions emerging from these introductions were the following:

- The creation of one or more **networks of schools of public health** that encouraged development of partnerships (both south-south and north-south) that would provide a platform for training students and serve as an entry point through which public health experts can access research grants**;**

- Finding ways of **linking research with training in public health** and making **training multidisciplinary.** Public health is inherently multidisciplinary and this should be reflected in the faculty and training programmes. A strong research component especially operations research is essential**;**

- A **database of expertise and students in Africa** should be created and there should also be regional and continental networks. The idea of holding an **annual conference of all schools of public health in Africa** should be explored**;**

- There should **be firm commitments from donors to support short, mid and long term action on strengthening public health training and research capacity in Africa**;

- It was necessary to establish **partnerships or networks** that will provide**:**
  - A *platform for standardizing public health training;*
  - A *mechanism for accreditation of schools and programmes;*
  - A ***strategy for addressing manpower and institutional development*** in the schools of public health**.**

- Schools of Public Health should promote **research that focuses on regional public health issues**;

- The **AfriHealth database will be kept updated** by the University of Pretoria School of Health Systems and Public Health if participants send in corrections;

- Schools of public health should **strengthen links with Ministries of Health** and other national and regional health and health research bodies;

- Schools of public health should be more active in shaping public health thinking and action **in the countries in Africa**;

- **Linking education in Schools of Public Health with improvement of community health;** this needs developing of **practical methods to measuring impact** and ways to **enhance communication between Schools and communities**, and perhaps **new ways of thinking about the end-result of academic activities –** impact over outputs;

- Strengthen public health institutions so that some of them can become **centres of excellence for public health research and multidisciplinary training**;

- Develop mechanisms for assisting schools to carry out appropriate **curricula review** and to improve **staff retention and fund raising.**

3. Background and Achievements of AfriHealth

Prof Carel IJsselmuiden

The AfriHealth project was born out of the recognition that academic public health education in Africa was still in its infancy and needed strengthening to be able to contribute more substantially to health improvements in Africa. The few existing 'schools' and many more 'departments' on the continent were weak in terms of staff establishments and outputs, and the programmes and structure of public health tended to follow models reflecting colonial history. AfriHealth was initiated in 2000 with a joint effort between Carel IJsselmuiden at the School of Health Systems and Public Health, University of Pretoria, South Africa, and Florence Muli-Musiimi, then health programme officer at the Rockefeller Foundation, New York. Both recognized that a 'mapping' or 'situation analysis' of post-graduate public health educational programmes had to be the first step in beginning the long-term task of improving graduate education in public health in Africa. Subsequently, the Rockefeller Foundation awarded a project grant in 2001 to Prof IJsselmuiden to deal with three core issues:

AfriHealth

1. **To map 'advanced public health education' in and for Africa;**
2. **To assess how technology-supported learning can assist in increasing capacity for public health education in Africa; and**
3. **To facilitate a pan-African meeting of graduate public health education programmes that would lead to an 'African Association of Public Health' or similar continental effort to build capacity in academic public health in Africa.**

(see Appendix 3 for further details)

3.1. Historical notes:

The presentation on AfriHealth was made with a fair amount of detail for the benefit of those previously unfamiliar with the initiative, and the following key points were highlighted:

- The project grant was awarded by the Rockefeller Foundation in February 2001; this was followed by a first planning meeting in Geneva in May 2001;

- AfriHealth's original objective was to examine ways of mobilizing resources for public health education on the continent itself; at the start, the working concept was a 'network of networks' and AfriHealth started under the name of 'AfriNet' that held its first meeting in Pretoria in April 2000; underlying AfriNet was the idea that the mostly small institutions in Africa could derive benefit from networking with other (small) institutions to create larger 'critical mass' in the many disciplines needed in public health; many of the disciplines usually associated with public health do not have regional or continental meetings, and many professionals have better contacts outside Africa than inside; AfriNet planned to improve this;

- Between May 2001 and June 2003, the main work of AfriHealth was initiated: i) a survey of institutions providing post-graduate education in public health in Africa was undertaken, ii) an assessment of potential of technology supported learning in public health, and iii) work on understanding the amount of advanced public health training for Africans conducted outside Africa;
  - **The institutional survey** comprised questionnaires distributed to all schools of public health and departments of community medicine in Africa; these questionnaires were subsequently followed by telephone reminders, and ultimately, by personal visits in 2003, by consultant fluent in English, French, Portuguese and Arab; a nearly 100% completion rate was achieved with exception of schools in Egypt; an interim analysis was done by June 2003 and the results have been presented at several meetings and conferences (see below) to ensure that results were disseminated as soon as possible to all initiative is human resources development active at the time;

- **An assessment of potential of technology-supported learning** was added as this was assumed to be key in increasing the ability of students to choose course work while enabling disciplines and professionals located in small units to build larger critical mass; it was also clear that technological solutions and educational approaches to optimise use of technology-supported distance learning existed in Africa itself, but that no framework existed on how to make this work for public health education across the continent; also, there are universities and commercial institutions using satellite and other forms of 'telematic learning' to great success; finally, 'telematic' learning in advanced public health was being marketed by various institutions in the USA, Europe and Australia – there was therefore no reason why, given same limitations, African institutions could not use this approach to widen African public health;
- **An assessment of public health education for Africa** (i.e. conducted outside Africa for Africans) centred around personal connections in Canada, USA, Australasia and Europe aiming to obtain reliable information on number of students and graduates and on the courses involved;

- It was noted that in Latin America, a joint effort between the CDC, World Bank and PAHO resulted in the definition of 'essential public health functions' – which were used to help define the outcomes of education in public health; as such 'essential public health functions' were not defined for Africa, 'African public health' remains somewhat lacking in focus or practical outcome; in future, such a continent-wide (or regional) effort in defining 'essential public health functions' may well be key to better defining the focus of advanced public health education;

- It was also noted that AfriHealth was not the first initiative in networking African institutions of public health; the first such effort, the Network of African Public Health Institutions (NAPHI) was based at the Makerere University, Faculty of Medicine and started in the early 1990's; the Rockefeller Foundation had also provided a small financial contribution (approximately $30.000) to help the secretariat get started, and the initiative was very publicly supported by WHO-AFRO; unfortunately, the NAPHI coordinator left the initiative to take up political office (currently as vice-president of Uganda) and the initiative stalled;.

- In the period between December 2003 and February 2004, unforeseen staff changes at the School of Health Systems and Public Health (SHSPH) (the project director, the project administrator and the business manager of the SHSPH all left within a 3 months period) caused the completion of the AfriHealth work to be delayed; similar changes of the Rockefeller Foundation's health division staff in the same period aggravated the 'loss of institutional memory' of the project further;

- However, completion of the phase 1 work could recommence in 2006/2007, with another grant of the Rockefeller Foundation, via New York University, to COHRED, to complete the first phase; the Makerere University School of Public Health (Nazarius Tumwesigye and David Serwadda) became the key partners for this period;

- In spite of the disruptions, AfriHealth has continued to make the case for substantial investments in post-graduate public health academic institutions, and various presentations, publications and regional partnerships have resulted (see further);

- The connotation of 'Phase 1' of AfriHealth (the current phase) indicates that after a situation analysis a pan African meeting would be held to disseminate findings and discuss on further action; these actions steps may then become further 'phases' of AfriHealth;

- Many persons have contributed to AfriHealth; in various capacities, the following persons have contributed to the work of AfriHealth: Abdallah Bchir (Tunisia), Robert Beaglehole (New Zealand), Eric Buch (South Africa), Tim Evans (USA), Paulo Ferrinho (Portugal), Hassen Ghannem (Tunisia), Wade Hanna (USA), Marian Jacobs (South Africa), Fadel Kane (Senegal, Canada), Bob Lawrence (USA), Adetokunbo Lucas (Nigeria), Reginald Matchaba-Hove (Zimbabwe), Bronwyn Moffet (South Africa), David Mowat (Canada), Mutuma Mugambi (Kenya), Mary Mwaka (Kenya, South Africa), Vic Neufeld (Canada), Samuel Ofosu-Amaah (Ghana), Augusto Paulo Silva (Guinea-Bissau), Anne Strehler (South Africa), KR Thankappan (India), Steven Tollman (South Africa), Jeroen van Ginneken (Netherlands) and Fred Wabwire-Mangen (Uganda).

3.2. Main findings of the AfriHealth project:

- AfriHealth was meant as a project and not as an institution – it may or may not continue or evolve; its outcome should be a drive towards the regionalization of schools of public health in Africa; further actions on building advanced public health education capacity as a key contribution to strengthening human resources for health in Africa, should be the main outputs and outcomes*;*

- A first component of AfriHealth was to study **'public health education for Africa'** : at the time, it was estimated that 300 or more African students obtain post-graduate public health training in Europe, the United States or Australasia, at an potential annual cost of US$ 50,000 per student; if correct, this would mean that at least $15 million is spent annually on graduate public health training outside Africa – an amount that could, instead, be used for the support of African SPHs to develop and offer programmes of similar quality as those for whom scholarships were given; if this were to happen, this could constitute a major way to build institutional capacity in Africa rather than 'to build institutions outside Africa to train for Africa', and, what is more, funding for this mode of capacity building is already in circulation; even if only half this amount would become available to provide long-term support for African institutions, this could be used to strengthen two, three or more centres quite meaningfully.
  However, data collection on public health training for Africa ran into difficulties: many institutions in the 'north' stated not to keep figures on the geographical origins of students, while, at the same time, AfriHealth itself did not have the resources to send consultants to do record reviews in SPHs outside Africa; consequently, we did not obtain credible data – neither from Europe nor the USA nor Australasia; therefore, this part of the study was abandoned in 2002;

- The second component of AfriHealth concerned an **assessment of the potentials and limitations of 'technology supported distance learning' to improve graduate public health training in Africa**; Ann Strehler from the department of Telemedicine at the University of Pretoria conducted a survey and reported back to the Steering Group in November 2002; the overall conclusion was that technology-supported learning can greatly assist all forms of graduate education, including in public health; it is technology dependent which at this time is still costly; as more initiatives are underway, telematic learning should remain on the agenda of all efforts to build Schools or networks of Schools; as the report has been published four years ago, it is not a core discussion topic for this conference; those wishing to know more can consult the original report. (Strehler A. Mapping the capacity for technology-supported and technology-based distance learning in public health education in and for Africa; see item 3.3.1.);

- **The third component of AfriHealth** concerned the **'mapping' of advanced public health education capacity training in Africa**. The methodology and main findings are described in the WHO Bulletin Article of December 2007 (see Appendix 4); in this session, the core findings were highlighted:

- **Main findings and conclusions of the AfriHealth mapping of advanced public health education capacity in Africa**:

  - **Approximately half the countries in Africa have no public health training programmes at graduate level; in a quarter of the countries there is one programme; and in another quarter, there are more than one courses;** the shortage is especially severe in Lusophone and Francophone countries;

  - **Most graduate public health programmes in Africa are based on a medical model** and are almost exclusively provided by departments (of 'community medicine') in schools of medicine; this gives public health education in Africa a very narrow training focus that is not able to respond to key challenges in health systems, health and equity; in Anglophone countries, qualifications concern mostly 'practice' degrees in medicine ('community medicine or health', occupation health) or in public health (MPH and similar degrees). In addition, many short courses and 'diplomas' are provided dealing with the classical areas of public health. In Francophone Africa, public health institutes tend to be closely linked to the military and to (public or private) scientific research. The number of schools are small

and deal with disease control and control methods rather than management of health services. In Lusophone Africa, there was no public health training until very recently when collaboration between Brazil and Mozambique.

- **Part-time, "on job – on campus", or 'executive' courses are rare – there is little or no flexibility in obtaining degrees.** This limits learning, especially for more mature professionals, and severely limits the exchange of 'modules' or 'students' and use of existing 'distance learning materials', all of which can provide meaningful additions to courses provided by small teaching units (see below);

- There are few 'large' schools but most public health education is provided by small departments (of community medicine); **just over 60% of units offering graduate public health education has less than 10 staff**; given the multi-disciplinarity expected from modern public health training, few, if any, schools or departments providing graduate public health education are able to build 'critical mass' in any one of these areas, let alone in all fields relevant to public health; **(cfr for accreditation of schools of public health in the USA, schools need to have five staff in five key public health disciplines – there is no African School that meets this target – even now !)**;

- While it is often stated that there are few 'south-south' linkages between institutions in Africa in general, and between departments or schools of public health in particular, but many more 'south-north' linkages, this study found that, in fact, most departments of community health had no substantive linkages with northern institutions; institutions in countries such as Uganda, Ghana and South Africa have many substantive links with northern institutions, but **when all institutions in Africa are considered, few had solid partnerships with the north and even less with south-based institutions**;

- **There is little evidence of regionalisation in public health (associations) in Africa,** except perhaps in East Africa more recently – in which AfriHealth was a major factor; at the same time, the economic collaboration zones in Africa are increasing, and this does create opportunities for sub-regional collaboration;

- **Annual intake of post-graduate degree students in Africa was 600+ in June 2003 and is rapidly increasing,** especially MPH programmes which are proliferating all over the continent, but **no clear reference base against which to standardize such training**;

- **Very few institutions accept / cater for international students;** many train for their local environment and are kept well occupied without having space for training students from other countries; if a goal of public health training is to create 'leaders, innovators or problem solvers' in public health, exposure to students from different countries and cultures is a must**; the absence of 'open' programmes, therefore, is a limitation to African public health training that is amenable to relatively easy intervention**;

- **There is low research output, few research degree programmes (MSc and PhD) and, in general, public health education is not linked to research** (in spite of usual 'dissertation' requirements); even in schools that are very successful in attracting many international research grants, courses are largely separate; this is rooted in the perception that 'public health' tends to be thought of as a discipline for district managers rather than for leaders;

- **The facilities available to departments and schools are far from optimal,** in terms of teaching space and equipment; although the survey did not obtain a detailed inventory of all respondent institutions, the combination of responses and personal visits by consultants make it clear that issues as simple as buildings, equipment, libraries, internet access remain key limiting factors for departments and schools of public health in Africa.

3.3. AfriHealth – what has been done and what is the way forward ?

3.3.1. Until now, the AfriHealth project has generated the following outputs:

- **Presentations**
  - ***in 2002***
    - Arusha, Tanzania, 11- 15 November 2002 : Global Forum for Health Research, plenary address *(Carel IJsselmuiden)* followed by AfriHealth steering committee meeting
  - ***in 2003***
    - Cape Town, South Africa; Joint Learning Initiative – Africa Group meeting, 26-29 March 2003 *(Carel IJsselmuiden)*
    - Washington, Institute of Medicine, Forum on Emerging Infections, 12-13 June 2003 *(Sambe Duale)*
    - Washington, USAID Africa Desk; AfriHealth presentation, 29 October 2003 *(Sambe Duale, Carel IJsselmuiden)*
    - NEPAD (New Partnership for Africa's Development) African Human Resources Platform - August 2003 *(Eric Buch)*
  - ***in 2004***
    - AfriHealth database provided to WHO public health workforce assessment and preparation of Index of Schools of Public Health (WHO HRH), Dr Elena Varivakova, Geneva, Switzerland
  - ***in 2005***
    - Presentation at an Open Society (Soros) Foundation sponsored meeting of African Schools of Public Health during a meeting of ASPHER (Association of Schools of Public Health in the European Region), Yerevan, Armenia, 2005 *(Carel IJsselmuiden)*
  - ***in 2007***
    - Presentation at the Bill & Melinda Gates Foundation, June 2007 *(David Serwadda, Carel IJsselmuiden)*

- **Publications**
  - Strehler A. Mapping the capacity for technology-supported and technology-based distance learning in public health education in and for Africa. Pretoria, University of Pretoria, 2002.
  - IJsselmuiden CB, Duale S, Nchinda T. Principles of good partnerships for strengthening public health education capacity in Africa. COHRED / Academy for Educational Development, 2004. (ISBN 92-9226-001-4). Available from: http://www.cohred.org/main/CommonCategories/content/783.pdf
  - CB IJsselmuiden, TC Nchinda, S Duale, NM Tumwesigye, D Serwadda. Mapping Africa's advanced public health education capacity: the AfriHealth project. WHO Bulletin 2007:85: 914-922.

- **Follow up action**:
  - A meeting was hosted at the University of Pretoria on behalf of USAID in April 2004 to discuss how best to support public health leadership building in Africa; one outcome was the report on 'good partnership in public health education (see above); this meeting ultimately resulted in the successful LIPHEA regional public health leadership programme.

- Final meeting on Phase 1, Arusha Tanzania, November 2007 (this report):

The anticipated outcome of this meeting was (and still is) the establishment of one (continental) or more (regional) public health associations or associations of schools of public health – with the intent of focusing on increasing critical mass, encouraging standardization, and becoming a voice for public health in Africa.

3.3.2. AfriHealth – where to from here ?

1. **Africa does not have a strategic plan for the development of human resources for public health;** it needs one rather urgently; current global health workforce initiatives tend to omit schools of public health and the leadership they can provide in solving Africa's health problems; Africa needs to put this on the agenda;

2. **Africa needs major investments in institutional public health capacity;** it requires donor harmonization and alignment, reliable and long-term funding far more substantially than has been given so far ***("good donorship")*,** matched with good partnerships and local resources; long-term, substantial funding may be easier achieved if we think about **'clustering'** or **'regionalization'** of advanced public health education and research; this can address several issues such as language and critical mass at the same time, and it may be easier to provide high level information and communication technology to a few centres rather than to many; there are many other advantages (including that it will make public health capacity building less dependence on political and economic instability in individual countries; and that it may attract Africans working outside Africa back to Africa, and even prevent people from leaving in the first place; and, large groupings may assist in building critical mass in specialisations in public health) – but also one potential serious draw-back – the risk of increasing inequity between countries; regionalization might also serve to link small countries that are not able to start their own school of public health;

3. During the Arusha meeting of 2003, the steering committee of AfriHealth was given a presentation on the European Credit Transfer System (ECTS) which institutionalises course credit transfer between academic institutions within Europe; the major advantages of credit transfer are that there is a greatly increased course availability within existing resources, allowing different 'small' units to specialise more, and, secondly, it introduces more student input into course-build-up – perhaps more 'future' or 'market' oriented than classical curricula established by educators; however, defining and implementing a credit transfer system is a slow and tortuous process, so, **an African Credit Transfer System** should be considered but only for the medium-term; an ally can be found in UNESCO which has been trying to generate a credit transfer system for all higher education as well;

4. **Increasing multi-disciplinarity in student and staff in schools of public health**: there is an urgent need to open up and have other disciplines becoming part of public health;

5. If schools of public health want to develop beyond what is possible with government grants, student fees and donations**, they have to embrace entrepreneurship and become more like business units;** many universities will not allow this at this moment; as a medium term objective, it is important to develop proper business plans for financial growth and sustainability;

6. **Clustering or regionalisation –** creating of **'centres of excellence in public health education and research' –** is a key to public health capacity development, possibly through twinning south-south and south-north.

4. Case studies on enhancing public health education capacity through networking

A number of associations in public health or of public health institutions are active in Africa - mostly in eastern and southern Africa. Many are not known beyond their immediate membership. To inform the deliberations of this (Arusha) meetings, representatives of these associations were invited to share their insights on history, potentials or limitations of their associations in terms of promoting advanced public health education.

4.1. Public Health Association of South Africa (PHASA)

Presentation by Prof Shan Naidoo, South Africa: director of PHASA

http://www.phasa.za.org/

PHASA is a prominent role player in the public health discourse in South Africa. It was established in February 2000 as an extension and expansion of the Epidemiological Society of Southern Africa (ESSA), with the following **aims**:

1) To comment on and campaign for public health issues in South Africa;
2) To present an independent view on special issues in public health without favour of special interest groups;
3) To focus on health problems in Africa in general – on the basis that health is indivisible and that most solutions are multidisciplinary and multinational.

PHASA's mission is to build an association of all those involved in health and health related activities to promote greater equity in health in South Africa. PHASA advocates equitable access to the basic conditions necessary for health of all South Africans as well as equitable access to effective health care. PHASA will also work with other public health associations and related organizations and advocate national and international issues that impact on the conditions for a healthy society. Its office bearers are voluntary and posts are non-remunerative.

A key instrument in achieving its objectives are the **organisation of national public health conferences.** To date, PHASA has held three successful national conferences.
The last conference was held on 16 – 17 May 2006. The theme of the conference was "Making Health Systems Work" and aimed to focus attention on one of the greatest health challenges facing Africa. The conference was co-hosted by the University of the Witwatersrand School of Public Health, the Gauteng Provincial Department of Health, the Health Systems Trust, the Medical Research Council of South Africa, the International Epidemiology Association (IEA), and the International Clinical Epidemiology Network (INCLEN). There were 386 delegates from 22 countries attending the conference which offered 120 oral and 119 poster presentations. The post conference report is available on the PHASA website (www.phasa.za.org).

Another important tool are PHASA's **newsletters and website.** During the 2005-2006 period, PHASA published four newsletters containing items on the Conferences, Schools of Public Health in South Africa, local Public Health initiatives and the PHASA's National Hand Washing Campaign. The newsletter is published thrice a year and is also available from the PHASA website www.phasa.org.za.

Establishing a **Public Health Journal** has been a long-term ambition of the organisation to have its own journal. It currently uses the Southern African Journal of Epidemiology and Infectious Diseases (SAJEI) for its publications. PHASA has representation on the SAJEI Editorial Board and PHASA members publish regularly in this journal. From next year, there will be an electronic edition.

To increase PHASA's influence in specific areas of public health, PHASA encourages the formation of **Special Interest Groups (SIGs).** SIGs include Environmental Health, Occupational Health and some provincial 'chapters' of PHASA also have SIG's. Recently, a public health medicine registrar

SIG was recently formed to promote the discipline and a there is interest in forming a new SIG on Public Health education.

PHASA follows the WFPHA (World Federation of Public Health Associations) and APHA (American Public Health Association) model of **accrediting / endorsing** public health initiatives to ensure that good standards are maintained. Incidentally, this provided another avenue to obtain income through accreditation fees. A specific logo was developed for accreditation and endorsement.

PHASA is developing **international linkages**. It became a member of the WFPHA in 2003 and sent a first delegate to the WHA (World Health Assembly) and the WFPHA Conference during 2007. PHASA was selected by the WFPHA – as one of three countries – for implementing a national 'hand washing campaign'. A relationship was started with the Colgate-Palmolive company to endorse and launch the successfully-run National Hand washing Campaign. PHASA members also attended the APHA annual meeting in Philadelphia in December 2005.

There is need to **consolidate and grow** PHASA. It requires a funded secretariat which is almost possible with current funding. A big challenge now is to recruit and retain members. PHASA is also strenuously striving to strengthen links with the government, and was invited to the first National Health Consultative Forum in May 2006.

Lastly, PHASA is planning its fourth Conference for May/June 2008 in Cape Town with the theme: "Realizing Alma Ata's Vision in the 21st Century – What will it take?"

4.2. East African Public Health Association (EAPHA)

Presentation by Prof Duncan Ngare; vice-president of EAPHA, Kenya

Historical notes: before EAPHA was formed, certain common issues brought the public health professionals of the three universities (Makerere University in Uganda, Moi University in Kenya, and Muhimbili University in Tanzania) together. Neither of the Schools of Public Health in the three universities had sufficient staff and they had started exchanging staff in order to fill in teaching gaps and have all courses properly taught.

During these exchanges, problems faced by individual universities were discussed. The exchange of teaching staff evolved into exchanging external examiners. Further meetings began to be opportunities to discuss public health issues facing the three countries and to discuss strategies to address these jointly instead of attempting to tackle them as individual countries.

The Rockefeller Foundation provided the opportunity that was able to bring the three Schools together. The Schools acknowledged that they had common problems and they needed to find a way to address the problems as a team in order to be more effective. The Schools brought on board more members such as staff from Ministries of Health, national medical research institutions and others.

Following meetings held in Entebbe, Makerere, Nairobi and Dar es Salaam, the idea of working as partners was consolidated. In September 2002, the EAPHA was established, and was registered in July 2003. It was agreed that the association would be housed in Tanzania. The founder members are:

- School of Public Health, Makerere University**,** Uganda
- School of Public Health and Social Welfare, Muhimbili University, Tanzania
- School of Public Health, Moi University, Kenya
- Department of Community Health, University of Nairobi, Kenya
- Kenyatta University, Nairobi, Kenya
- National Institute of Medical Research, Tanzania
- Ministries of Health of Uganda, Kenya and Tanzania.

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The **goal of the EAPHA** was phrased as follows:

To contribute to the improvement of the health status of the East African population through the formation, strengthening and collaboration with national public health associations that shall be chapters of the Association.

The **objectives and activities of the EAPHA** are:

- Awareness creation;
- Stimulate and assist in the formation of local chapters where they do not exist;
- Strengthen national public health associations;
- Influence public health policy in East Africa;
- Promote collaboration among public health training institutions in East Africa;
- Ensure excellence in public health training in the region;
- Facilitate and encourage complementarily in public health training;
- Develop a public health research agenda for the region;
- Collaboration in multidisciplinary research on common priority public health problems;
- Linkages with research institutions;
- Linkages with international Public Health associations and agencies.

In spite of its short existence, the **EAPHA** has already had some **achievements**:

- The formation of the ***East Africa Integrated Disease Surveillance Network (EAIDSnet)*** to facilitate disease surveillance within the region. All partner countries are represented in the network;
- Have the ***East Africa Journal of Public Health*** now in its fourth edition;
- Were able to persuade the ***East Africa Community to establish a health desk*** as avenue of bringing all matters to EAC including standardization and accreditation of training;
- Have just concluded the ***first scientific conference*** which was a great success with 250 public health professionals attending;
- The contacts made in the EAPHA made it easier to collaborate as part of the formal leadership network (LIPHEA) on which a report will be presented later (see below);

4.3. East, Central and Southern Africa Public Health Association (ECSAPHA)

Presentation by Dr Deogratius Sekimpi; vice-president of EAPHA, Uganda
http://www.sopha.cpha.ca/english/other_part_e.html

Overview: the founding countries whose representatives signed the constitution were Botswana, Kenya, Malawi, Mauritius, Swaziland, Tanzania, Zambia and Zimbabwe. The following countries were eligible for membership in ECSAPHA: Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Somalia, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

ECSAPHA has its own constitution which addresses objectives, membership, council, executive committee, elections, voting, meetings, finances, publications, legal matters, amendment to the constitution, and dissolution of the association.

ECSAPHA had intentions of liaising with other international organizations such as WHO, UNICEF, and the United Nations Industrial Development Organization (UNIDO) in matters relating to public health and had intended to apply for membership with the World Federation of Public Health Associations (WFPHA).

The major objectives of the association are to stimulate and assist the formation and strengthening of National Public Health Associations, to promote cooperation and collaboration between member associations and to assist them in fulfilling their objectives.

ECSAPHA's specific objectives are:

- Create awareness for the need and benefits of National Public Health Associations in countries in the region;
- Act as a catalyst for the formation of National Public Health Associations where they do not exist;
- Strengthen and sustain National Public Health Associations in the region;
- Promote the practice of public health in member states;
- Promote, establish, and sustain communication between member Associations, through meetings, workshops, newsletters and journals;
- Coordinate common activities undertaken by member associations;
- Provide consultation in collaboration with National Public Health Associations, national governments, regional organizations, teaching and research institutions, relevant international bodies, non- governmental organizations and similar bodies on matters of public health concern;
- Encourage training in Public Health in the region;
- Promote and actively encourage excellence in training in public health;
- Facilitate and encourage complementary public health training courses and reciprocal recognition of the courses in the region;
- Encourage collaboration in carrying out research on common public health problems;
- Identify expertise among its members and facilitate exchange of experts in the region;
- Identify linkages between National Public Health Associations within the region and other international Public Health Associations and agencies.

ECSAPHA has not taken off yet, but current attempts are to get it re-started. The specific **steps that have been undertaken in the past year include**:

- 'Revitalisation' of the ECSAPHA network: a meeting held in April 2007 convened participants came from countries: Botswana, Malawi, Ethiopia, Kenya, South Africa and Uganda; the meeting prioritized the following issues for the sub-region:
  1. Advocacy;
  2. Creating an enabling environment;
  3. Identifying best services and prioritizing these;
  4. Getting participants to commit;
  5. Community engagement;
  6. Ethics in community health research;
  7. Health promotion and injury prevention.

  The meeting identified two mechanisms for implementing these within the sub- region were identified: i) knowledge sharing, and ii) communication and information; with the help of the Canadian Public Health Association, ECSAPHA is trying to form a virtual network and harmonize the training;
- Seek to establish new national PHAs in member states that do not have such associations;
- Seek to strengthen existing national PHAs (mentoring);
- Present Workshop Report to the World Federation of Public Health Associations Annual Meeting in Geneva (May 2007);
- Re-establish working relationship with the Commonwealth Regional Health Community (ECSA) and the East and Central, Southern African Health Community;
- Seek to establish relationship with East African Community and South African Development Community (and other organizations);
- It is hoped that the many stakeholders in the Eastern, Central, and Southern region of Africa will recognize and appreciate the capacity of the ECSAPHA network and collaborate with ECSAPHA to achieve common public health goals. At a time of globalization, there is a need for effective regional approaches to common public health issues in the ECSA region. Thus there is an important role for ECSAPHA to play;
  - Encouraging collaboration in research;
  - Encourage linkages between international public health association within the regional and internationally;

ECSAPHA's **immediate future plans** are to:

1. Contribute towards starting an 'Excelsior distance learning college' for East and South Africa in public health;
2. Exploring the possibility of establishing a journal for the sub region;
3. Have regular meetings for the Excelsior college and organise other conferences taking place in the different member countries;
4. A business meeting that was scheduled to take place during September 2007 was not held and may be held in 2008;
5. And there were individual commitments to be followed up, for example, Kenya promised to revitalize its public health association.

4.4. Leadership Initiative for Public Health in East Africa (LIPHEA)

Presentation by Dr Geoffrey Kabagambe, coordinator LIPHEA, Uganda
www.liphea.org

Background: there is a growing recognition that the current health workforce in the developing world is grossly inadequate for meeting the overwhelming health challenges. LIPHEA summarizes these health challenges facing Africa as follows:

- A heavy disease burden;
- Rampant infectious diseases such as TB, HIV/AIDS, malaria, childhood diseases and others;
- Increasing chronic diseases such as cardiovascular diseases and diabetes;
- Increasing maternal and infant mortality;
- A disaster-prone environment;
- New and re-emerging infections that are appear frequently.

In this context, USAID had decided to invest substantially in a centre of excellence in public health in Africa, and had approached AfriHealth to arrange a meeting with Schools of Public Health in Pretoria in April 2004. Following this, a long process of call for applications in Africa and in the USA resulted finally in the formation of the LIPHEA partnership.

What is LIPHEA : the Leadership Initiative for Public Health in East Africa started in 2005 as a long-term partnership between two Schools of Public Health in East Africa and three institutions of higher learning in USA; it is supported by a substantial grant from USAID disbursed through 'Higher Education for Development' (HED) in Washington; the LIPHEA partners are:

- Makerere University, School of Public Health, Uganda;
- Muhimbili University of Health Sciences, School of Public Health and Social Sciences, Tanzania;
- Johns Hopkins Bloomberg School of Public Health, USA, as the lead institution;
- Tulane University, USA;
- George Washington University, USA.

The **aims of LIPHEA** are to:

- Establish a long term partnership between academic institutions in USA and East Africa;
- Provide technical assistance to East African Schools of Public Health to review curricula and develop in-service short courses for improving leadership skills;
- Help reduce the "brain drain" by improving professional development opportunities for public health leaders.

The original two East African Schools of Public Health in LIPHEA have now grown to seven, the **HEALTH Alliance**; the other Schools of Public Health are those of Moi and Nairobi Universities in Kenya, the University of Rwanda, the University of Kinshasa (DRC) and Jimma University in Ethiopia.

The **aim of the HEALTH alliance** is to improve the health of the population of Africa by developing strong public health leadership skills; to achieve this, the HEALTH alliance is carrying out the following activities:

- Assessment of leadership skills and taking appropriate steps to strengthen these within the university and health sector;
- Review and update undergraduate curricula in public health;
- Develop and run short courses on leadership;
- Improve the teaching of public health;
- Building linkages through:
  - Holding annual networking meetings of Deans and Directors of Public Health Schools;
  - Supporting EAPHA to create a scientific forum of public health practitioners and holding appropriate conferences;
  - Supporting the EAJPH to publish papers on leadership issues as well as public health research findings;
  - Supporting the health ALLIANCE (HEALTH) to grow through various mechanisms including fund raising;
  - Establish an internet-based academic network.

LIPHEA also **intends increasing academic leadership** through:

- Training of undergraduates and post-graduates in leadership skills;
- Training of young faculty to Masters and PhD levels;
- Support faculty to attend tailor-made short courses on leadership;
- Increase interaction with sector-wide management;
- Build capacity to advocate for investment in health through training (attending short courses and training workshops);
- Teaming up with public sector management in running short courses;
- Communicating health messages to the public through the media and via organized seminars.

LIPHEA has made rapid progress made so far:

Rapid assessment of leadership skills

- Assessment of skills of public health teachers through questionnaires directed to academic staff and other service personnel;
- Results of the assessments were used to identify gaps in their knowledge and skills and short courses in leadership were developed to upgrade their knowledge and skills;

Leadership in academics

- **Developed the following programmes**:
  1. MSc in Health Systems Research
  2. MSc in Human Nutrition and Masters of monitoring and evaluation
  3. Post-graduate course in Disaster Management

- **Review of curricula for Master of Public Health and other Masters programmes is on-going in Muhimbili; the curricula reviewed include**:
  1. MSc Health Services Research
  2. MSc Human Nutrition
  3. MSc Environmental Health
  4. MSc Epidemiology
  5. MSc Biostatistics
  6. MSc Health Promotion

- Internet capacity has significantly improved within and between the two institutions;
- A regional disaster management training programme is to start soon;
- The regional alliance of seven Schools of Public Health has been formed and activities are moving ahead with the two supported institutions playing leadership roles; the deans and directors of the Schools attended a symposium on Leadership in Health held by the Ministry of Health in Uganda and McGill University (Canada);
  - A number of public lectures were given in Uganda and Tanzania by leadership experts from abroad:
  - "Leadership Principles" by Prof James Kee from George Washington University.
  - "Leadership Implementation Science: the Role of Leadership in Changing Institutions" by Prof Eamon Kelly from Tulane University;
  - "Public Health Leadership and Management" by Henry Minzberg from McGill University.

Other achievements and improvements

- The following institutional capacity strengthening activities were initiated:
- Creation of leadership forums of Deans and Directors of Schools of Public Health; three forums where held thus far;
- Academic networking and organizing an International Scientific Conference;
- strengthening of the East African Journal of Public Health with production of 2nd, 3rd and 4th volumes;
- The East African Journal of Public Health (EAJPH) is a peer reviewed journal that publishes articles on leadership issues in health and other public health related topics; it is indexed in MEDLINE and available free and full-text at http://indexmedicus.afro.who.int (African Index Medicus) and is also indexed at http://www.ajol.info (African Journals Online); the Journal is also available online at Bioline International and PUBMED;
- A leadership books and website/knowledge centre now exists;
- Faculty has been trained in specialized areas of leadership;
- A data management centre is now fully equipped;
- Faculty is now equipped with computers
- A new UPS gives standby time for up to 72 hours;
- New courses have been initiated at graduate level and a number of short courses have also been planned;
- Leadership training carried out so far:
  - Management Sciences for Health Online Course: 6 participants;
  - Leadership and Change Management, Germany: 2 participants;
  - MSH - Training Of Trainers course: 18 participants;
  - Strategic Leadership in Health: 60 participants;
  - Learning to Learn, Tulane University: 4 participants;
  - A short course on Quality Assurance was organized in Kigali, Rwanda: 30 participants.

LIPHEA's proposed regional activities:

- There are three proposed regional activities:
  - a) A proposal to start an IT and knowledge centre in the region to strengthen IT capacity in the Schools of Public Health;
  - b) A proposal to strengthen disaster response and management capacity in the region to be financed through HED;
  - c) A proposal to improve the website www.liphea.org in collaboration with Tulane University.

We see the following challenges:

- How to effectively establish coordination and communication mechanisms among the respective partners;
- How to adapt to the respective regulations of the various Institutions so as to harmonize procedures and practice.

5. Short presentations and panel discussion on enhancing public health education

5.1. Short panel presentations

5.1.1. World Health Organization*: Scaling-up Public Health Education and Training with a focus on Africa*

Presentation by Dr Alena Petrakova, Health Workforce Education and Production – Human Resources for Health (HRH), Health Systems and Services division, World Health Organization, Geneva, Switzerland.
http://www.who.int/hrh/en/

The World Health Report of 2006 confirmed that information is available about the distribution of physicians, nurses, midwifes and dentists but that little is known about public and environmental health workers, community health workers and health managers.

One of the main challenges is to scale up the training of public health professionals with adequate skills and competencies. In addition, the skills and competencies of public health graduates have to be better matched to the task of addressing population's health needs, including the areas such as health policy, health management and leadership as well as health protection and research.
The WHO is trying to send out policy messages concentrating on the public health profession and she is working on a special theme issue of the WHO Bulletin on Schools of Public Health: the AfriHealth Project and its report are an important contribution to this special issue expected to appear in December 2007.
In trying to engage deans and directors of Schools of Public Health in East and Southern Africa directly, Dr Petrakova encouraged them, for example, to provide a provocative paper that WHO could use to initiate debate on innovating public health training in Africa. She also encouraged Schools of Public Health to work with the WHO through their respective WHO country offices; this might facilitate increased collaboration between Schools of Public Health and ministries of health, of education and ministries in other sectors.
Concrete suggestions made by Dr Petrokova were:

i) Schools of Public Health should become members of national and regional public health associations; the WHO – HRH is trying to stimulate this systematically as associations will not only deal with education but may cover activities of NGOs and government sectors at the same time; and
ii) Networks or associations will assist in the development and use of new approaches and tools for communication and promote knowledge sharing; a new 'knowledge management for public health' discussion group has recently been started; this 'community of practice' strives to demonstrate to participants how to use information communication technology for improving communication and knowledge sharing at different levels in the public health environment, for example, it includes accessing Internet or develop offline digital libraries; meeting participants were invited to join the network (see URL below);
iii) Another level of networking and partnership is needed at the government level; government is responsible for health policy and Schools of Public Health have to ensure that students match the knowledge they receive with practice in the field and understanding of the health policy process; therefore, Schools of public health need partnerships with academia, professional associations, NGOs, civil society and private-public partnerships.

Referring to the various meetings of African Schools of Public Health since 2000, Dr Petrakova suggested that there was a wide agreement on the need to collaborate to improve public health education, that new connectivity would greatly assist in achieving this and referred to meetings of African Schools of Public Health in the past, but that challenges remain; networks will remain a key area for development, and they should focus on:

a) Partnership formation;
b) Sharing information, experience and knowledge;
c) Sharing training programmes;
d) Sharing faculty;
e) Creating networks and communities of practice;
f) Using information and communication technology (ICT).
She recommended that meeting participants joint the new knowledge for public health networks at: www.who.int/km4ph

5.1.2. Aga Khan Development Network*: what can we bring to (and take from) the table?*

Presentation by Prof Laetitia King (Head Nursing Sciences and Chief Academic Officer, Aga Khan University, Nairobi, Kenya) and **Dr Amyn Lakhani** (Director, Community Health Department, Aga Khan Health Service, Kenya).
http://www.aku.edu/AKUHN/

Dr Lakhani: there are several institutions that work within the Aga Khan Development Network (AKDN); the part of the Aga Khan Health Services (AKHS) dealing with community health services is located in Mombassa and has been in operation for 25 years; the AKHS, Kenya started in Kisumu with PHC initiatives in 1983.; although it was concerned with service delivery in the beginning, this has changed focus to system development and strengthening in the field; a main focus of the AKHS in Kenya is developing its health management information system.

There was a stage at which Aga Khan University (AKU) thought of establishing a School of Public Health, but feared that establishing one could isolate them from the surrounding medical schools; however, the AKU were convinced of the need to involve the population served more closely in care provision through multi-sectoral approach, and this became the community development function.

Prof King continued, noting that the AKU is not yet sure if it should establish a School of Public Health or a department of community health. However, AKU is becoming more interested in a multidisciplinary approach to solving public health problems as the link between community health and community development is increasingly being recognised.
The AKU operates not only in Kenya but works in several continents; therefore, in considering public health education in East Africa, it is also necessary to take a global perspective of the impact of AKU; in this regard, the expansion of the Faculty of Health Sciences at AKU (EA) may help increase global effectiveness of the AKU; AKU is, in the context of existing Initiatives, contemplating on how it can work with Moi and Nairobi universities in Kenya, and with other universities in the region. There is a clear intent to focus work and impact of public health education on the entire East African community, not just on Kenya.

A key challenge is the mutual recognition and accreditation of qualifications between Schools is one that needs to be discussed; a start was recently made when the Commission of Higher Education in Kampala, Uganda, called a meeting to discuss this issue of reciprocal recognition of qualifications across countries and regions; while this may take time, it is a move in the right direction for a strong East African public health education capacity.

5.1.3. Tulane University

Presentation by Dr Laura J Haas, New Orleans, USA.

One of our early experiences in working with Schools of Public Health in Africa dates back to the early 1990s when an attempt was made to establish a network of public health institutions (NAPHI). This did not take root and further attempts over the years have not been successful nor sustained. But, it is easy to see how the environment has changed over the years in ways that will facilitate success of networks. A prime example is the ease of communication via e-mail, something that was largely unavailable in Africa not so long ago. Our past the experiences in developing networks in the past have now proven useful in starting up an initiative such as LIPHEA that is promising to be a flagship Initiative.

Salient issues
In terms of Schools of Public Health, Tulane University is trying to develop and work on long term relationships and collaborative partnerships with African partners. Tulane needs such long term relationships in order to get long term funding; the early successes in the partnership with LIPHEA is a strong motivator for stimulating other organizations to join and to find and add more resources. Already in August this year, the LIPHEA model was presented at a conference raising much interest. A basic characteristic of this partnership is the emergence of a common vision which is creating an identity in which all partners can find themselves and that is of benefit to all parties;
Tulane University's support over the years has been beyond enhancing teaching, research and community service; it often focuses on strengthening leadership; Tulane University feels strongly about leadership and leadership training as this constitutes a very important skill for interacting with the many other stakeholders in the field of public health.
Support provided by Tulane University comprises:
a) Course development;
b) Using information and communication technology;
c) Research, and particularly operational research, that enhances evidence based decision-making;
d) Administrative and financial management;
e) Teaching, writing and communication skills.

5.1.4. Higher Education Development (HED)

Presentation by Dr Christine Morfit, director HED, Washington, USA.
http://hedprogram.org/

The Higher Education for Development (HED) is an agency that works on behalf of public associations of higher education in the USA and covers different sectors of higher education. HED's members are:
- American Association of Community Colleges
- American Association of State Colleges and Universities
- American Council on Education
- Association of American Universities
- National Association of Independent Colleges and Universities
- National Association of State Universities and Land-Grant Colleges

For most part, the support for the development projects in the member colleges and universities comes from USAID. HED itself started as a grant-giving organization receiving funding from USAID. Competitive grant mechanisms are then used to disburse such funding. As part of this work, HED has identified institutions in developing countries and in the USA that have been partners for several years, and received funding from USAID to maintain and strengthen these relationships.

In the past several years, this mode of operation has been redefined. Instead of reaching out to US institutions, African academic institutions such as Schools of Public Health were approached. This is how the LIPHEA project began, following the meeting organised by AfriHealth in Pretoria in 2004. African institutions were asked to identify priorities for strengthening their own institutions and, subsequently, to identify US partners who could best support these priority developments. To allow this process to happen and to increase the

influence of African institutions in the process of identifying key US partner institutions, the following steps were followed:

- A general call for proposals aimed at African institutions was issued first; and advisory and review panel short listed the top 4 institutions;
- The short listed African institutions were asked to define development priorities for their own institutions, and these were incorporated in the request for proposals that was aimed at the US university community;
- The US institutional selection was then done jointly between the final two African institutions (the two East African institutions in LIPHEA) and the HED advisory panel;

Thus, two innovations were achieved: firstly, the 'winner' was not one institution, but a consortium of two institutions, and, secondly, the African institutions had a substantial say in defining the call for proposals as well as identifying the partner institutions in the USA; this was a major shift away from 'Washington led selection processes' often used, and these changes are considered to be important determinants of the (early) success of LIPHEA; attempts are being made by USAID to use this model in other sectors as well.

Further innovations in the project implementation were:

i) The length of project funding; instead of the usual two to three years, LIPHEA funding was initially provided for five years, but an 'in-principle' agreement reached with USAID was to extend it to 10 or 15 years if project goals are achieved; but this will depend on availability of continued funding within USAID;

ii) Secondly, a mechanism was sought to enhance the joint ownership in view of requirements that funding be provided to the US-based lead institution; this was done in response to initial comments from the African partners that in the traditional manner of funding, control and overhead costs were only available to the US-based institution which could charge for work done by African institutions. It was resolved that a joint management structure, located in the African institution, would be managing the funding for the African partners and work (after it had been channelled through the US-based institution); this has been implemented with good results that satisfies all.

USAID is also taking this type of approach at it is no longer the largest source of its own funding: different US organizations, including private foundations, are now contributing substantial amounts to USAID projects; this allows USAID also to present a new concept for global development: it is shifting support to clusters of organizations that have shown to be able to work together – such as LIPHEA – rather than funding individual institutions.

5.1.5. Rockefeller Foundation

Presentation by Dr. Charlanne Burke, Senior Research Associate, Rockefeller Foundation, New York, USA.
http://www.rockfound.org/

The Rockefeller Foundation has a long history of working in the field of public health and developing public health as a profession; the Foundation has worked with different organizations since 1913 helping to establish Schools of Public Health in the USA, Europe, Africa, Latin America, and Asia.
Some of the more recent well-known health programmes of the Rockefeller Foundation have included INCLEN (International Clinical Epidemiology Network), PHSWOW (Public Health Schools Without Walls), and the Joint Learning Initiative (JLI) which focused on development of human resources for health – the health workforce.

Some key issues of interest to this meeting that were mentioned were:

i) The Foundation at the time was in the process of rethinking its work and reviewing its strategy; it has embraced **a way of working that will be more flexible, multi-sectoral and cross-disciplinary, and that will seek to have impact on emerging challenges and opportunities**. Previous Foundation programmes such as 'Working Communities', 'Food Security', or 'Health Equity' no longer function as discrete entities; instead, the Foundation now works through initiatives that address many of the areas formerly covered under these programmes as well as new and important issues. For example, the Rockefeller Foundation has initiatives involving efforts in

New Orleans to mitigate the impact of hurricane Katrina, and other initiatives on climate change, innovation, and pandemic preparedness and disease surveillance.
This latter initiative on pandemic preparedness has three components: i) emerging zoonotic threats and disease surveillance in different regions, ii) ICT for health in the south, and iii) the connection between animal and human health and emerging disease around the world;

ii) **Health systems** are considered as an important organising principle by the Foundation; with this in mind, the Foundation is currently exploring the role of the private sector in public health, e- health, and new **public health competencies**. In terms of the new public health competencies, there are lots of opportunities in the health world, new models of training health professionals, new schools of public health, emerging regional networks; and within LIPHEA, the increasing number of partners. There are several aspects to the new exploration of public health in the Foundation. We are working with partners to develop an integrated global database on schools and institutes of public health. The Foundation hopes that this directory will be a global public good accessed freely and constantly updated by members, and we have commissioned background papers that will define the 'public health professional' (where do they work? - what do they do? – what are their career trajectories?) and explore society's needs around public health professionals.

iii) Finally, we are supporting work to review public health curricula around the world. At this point, these efforts represent an exploration into public health competencies and education. In 2008, we will synthesize the results of the background papers and other work, convene and participate in a variety of meetings, continue our consultations with experts and other participants in this work, and prepare internal documentation for presentation to our senior management, which we hope may result in a new initiative for Rockefeller Foundation engagement with public health.

5.2. Panel discussion

- Within a few weeks, **a call will be launched for applications to public health institutions in collaboration with other partners for the development of courses like Masters in Public Health, Masters of Science and maybe a Masters in Business Administration**; the Bill & Melinda Gates Foundation will be funding this venture; it will be an excellent opportunity for the Schools of Public Health planning to increase their research output to apply for support;

- There are problems for **Public Health Institutions in West Africa: regional associations and networks appear to be entirely absent**; there are no initiatives of the kind existing in East and Southern Africa; participants from public health institutions in West Africa asked questions on how to develop partnerships with public health institutions in other countries either at national (for a large country like Nigeria with over 8 Public Health institutions) or at regional level;
  One of the suggestions made was that countries could start with their home USAID missions; it is these missions that forward interesting proposals including those of institutions of higher learning to USAID Washington; although there are no guarantees of success this is a key road to get started;

- Some participants asked **if AfriHealth data would be available in French and Portuguese**; they expressed concern that the data in AfriHealth covers essentially English speaking countries only where most of the Public Health Schools were located; in response, it was pointed out that this is not a deliberate omission but a result of the fact that Schools of Public Health and Regional Associations tend to be concentrated in Eastern and Southern African; at the same time, it was noted that Zaire and Rwanda were part of the HEALTH Alliance, probably as a result of their proximity to East Africa;

- Some participants wanted to know **where calls for proposals were posted** as many did not know about them; it was clarified that calls were generally posted on the web pages of organisations, and that it was the responsibility of individual universities, ministries of education,

vice chancellors or chief academic officers to consult these web pages; another option was the WHO pages on public health: the AfriHealth data will be published on public domain starting with the WHO website, which may also publish other resources such as activities highlighting interesting upcoming events, call for proposals or new knowledge networks for public health schools; however, an integrated database that lists all calls of interest to institutions does not exist; in the context of research, COHRED is establishing '**Health Research Web**' (www.cohred.org/healthresearchweb) which will attempt to summarize funding information by country for which it is available rather than by donor as is currently the case; perhaps a similar system could be developed for public health;

- An additional problem is that many universities do not know how to prepare for these call for proposals; if one hears about future calls, interested persons should begin to look up and read the websites of the commissioning organisation already now; some participants suggested that the AfriHealth website should be used to post some of these calls for proposals; 'Health Link' has been putting up funding proposals on its website for several years, but few if any universities represented in this meeting seem to know about this, let alone obtain grants; **a suggestion was that universities in the region or in the partnership could team up to scan for calls and to prepare joint submissions**;

- A representative of the CDC, Atlanta, explained that it is a technical organization of the US Government and not a donor organisation; it works closely with Schools of Public Health; it does develop partnerships with other institutions in different countries in Africa and currently has one in West Africa with headquarters in Burkina Faso; the **CDC also has partnerships in Nigeria, Ethiopia, Egypt, Southern Sudan, Kenya, South Africa, Zimbabwe, Uganda and several other countries; CDC will be happy to link with some of Schools of Public Health in this meeting.**

6. Working groups and general discussion

The meeting divided into three groups dealing with three specific questions of importance to public health education in Africa. The main question for each group and key points raised in the small group discussions are presented below.

6.1. Group A : Networking as a means to increase capacity in public health education

- **Forming Associations of Public Health** : it is necessary for each country to have its own national public health association in order to bring together all public health professionals; the national associations can then coalesce to form a regional public association;

- **Training and research** : although AfriHealth has mapped Schools of Public Health, the detailed contents of training being offered and the variations in the programmes still needed closer definition as was done in LIPHEA; it was agreed that the research output remains low in most of the schools and needs concerted action;

- **Networking**: there is need to network Schools of Public Health; some countries, like Nigeria, have several Schools of Public Health; as a first step, these Schools should form a network or an association so that, nationally, they can be focused in terms of training, capacity development and research; moving from a national to a regional organisation can follow later; however, countries with only one School of Public Health will benefit from being networked with other Schools in the region;
  to be able function properly, networking should start regionally rather than continentally; an example was given of NAPHI (which was hosted by Makerere University, and that attempted to bring all Schools of Public Health in Africa into one association – although the idea was good, it was very ambitious, probably too ambitious at the time. On the other hand, the HEALTH Alliance as a regional association or network may be a good example: in this case, LIPHEA and 5 other Schools in the region teamed up to form a 7-member Association (HEALTH) which has a common vision and mission; funding was available to LIPHEA only but the Alliance as a network has become formalised in spite of this limitation; a network formed in this way can have one voice in advocating for and focus on training of public health manpower;
  networks needs to develop clear goals and objectives; there are different tools to support developing networks available from WHO;

- **Shared vision, objectives and terminology**: Schools of Public Health in Africa do not have to have the same goals and objectives – only regional networks should have the same objectives in order to function;
  Confusion may arise as a result of different understanding of terms used: some public health training institutions, for example the University of Nairobi, has an MPH offered by a Community Health Department in a Faculty of Medicine; they train public health workers but it is not an actual School of Public Health; one problem noted by the group was that all providers of public health education are included, even though some organisations provide public health training but not necessarily offer postgraduate degrees; therefore, a decision was made to discuss the training of public health professionals only within the context of post graduate training [Masters of Science, Master of Public Health or doctoral programmes];

- The group noted that there was considerable overlap in the activities of the different associations that presented their activities (LIPHEA, EAPHA, PASHA, ECSAPH) even though they were all technically completely separate;

- It was strongly recommended that Schools of Public Health utilize the opportunities offered by political and economic cooperation at regional level, for example, within initiatives such as the EAC (East African Community), SADEC (Southern African Development Community) and ECOWAS (Economic Community of West African States); networks can be adjusted according to these political and economic communities but they must ensure to remain linked to the health needs of our communities.

6.2. Group B : Linking research to public health education

AfriHealth has been concentrating on education capacity in the Schools of Public Health; however, the AfriHealth database can possibly also be used for strengthening public health research that – in turn – may cement long term relationships among the members of the network;
Additionally, research is indispensable in providing evidence for use by policy-makers especially in public health; therefore, research training for implementation can help build new competences in areas such as advocacy, monitoring and evaluation.

Actions that should be taken to strengthen research include:

- Mapping human resources for health research and health research systems – both nationally and regionally using AfriHealth database;
- A basis for research system and human resources for health research development could be found by adopting COHRED's Essential National Health Research (ENHR) strategy to determine research needs and priorities;
- Links with health research institutions, medical research organizations, national research institutions and universities could be piloted over the next year, and different consortia formed to respond to the coming Wellcome Trust proposal on institutional capacity strengthening;
- How can the research be translated into action? – this topic resulted in a long discussion which concluded that public health research could help bridge the gap between policy and research and this aspect should be emphasized in public health education
- COHRED to distribute the information on large calls for proposals – like the Wellcome Trust call – possibly through its Health Research Web service.

6.3. Group C : Multi-disciplinary training

This group started their discussions by reminding themselves of the definition of public health stressing its dynamic and multidisciplinary nature. It involves partnerships to ensure real success.

Approach to public health education

Good training needs resources, appropriate faculties and good trainers; there should be adequate expertise and detailed, well developed curricula and course work; a database to identify all such educational resources in the region would be very helpful for sharing and standardisation of courses;

Association of Schools of Public Health

There is need for an Association to link all Schools of Public Health, and encourage participating Schools to facilitate the exchange of expertise and course modules, and to stimulate and improve training in and between the different regions in Africa;

Accreditation

Accreditation will be key to the development of high quality public health education in Africa, and should be developed for both short- and long-term courses;

In the short term, a **pilot study** should be conducted to help create proposals for mechanisms of accreditation because, at this time, there are substantial differences between countries in terms of courses, training and accreditation; the accreditation system then needs to become accepted by Schools of Public Health after which it can be used to start the accreditation process; in developing a systematic approach, it needs to be kept in mind that there are two levels of accreditation: i) a first level concerns how countries accredit universities, and ii) the second level refers to how universities accredit courses;

It might be useful for Schools of Public Health in Africa to become more familiar with models or policies of accreditation used elsewhere. One such accreditation system specifically

addressing public health higher education programmes is located in the USA and is used by the Council on Education for Public Health (CEPH) which was established in 1974 as an independent body by the American Public Health Association (APHA) and the Association of Schools of Public Health (ASPH); CEPH accredits Schools of Public Health and public health programmes outside Schools of Public Health and is a not-for-profit corporation; outside the USA, the only accreditation agency in Europe to be more specialized in accreditation in public health is the Accreditation Agency for Study Programmes in Special Education, Care, Health Sciences and Social Work (AHPGS) in Germany; its website is www.ahpgs.de;
African Schools of Public Health can then agree to have their courses accredited and thus open to students from other countries in Africa; those mechanisms need to published so that Schools of Public Health (and their students) know that accreditation criteria are available and can be used; afterwards, an 'accreditation council' can be formed to which every School should belong;

Definition of public health and public health practitioners

It is important to define public health and public health practitioners in terms of scope and depth of functions and competencies; Africa may consider an 'essential public health functions' exercise, similar to the one held in Latin America, to define the minimum core of public health; once defined, degree programmes should be designed to meet these minimum requirements; it is expected that public health professionals will hold at least a Master of Public Health, Master of Science (in a public health field) or similar postgraduate degree obtained from an accredited University; short courses are not sufficient to make someone a 'public health professional' and should be used to disburse knowledge and competencies to people who are employed and require a limited set of public health skills, or to professionals needing professional updates.

'High definition' AfriHealth map

While the original AfriHealth map was a great start to a situation analysis of public health education in Africa, it now needs to become more detailed – providing more information on topics such as:

- This 'higher definition' map should provide information on institutions, their courses, and on the members of the faculty of public health and their areas of expertise, their disciplines and research outputs; an inventory of public health experts in the different Schools of Public Health can be drawn up and stored in the database; such a list should the be open for use by anyone working in the field to identify matching expertise, research and course work;

- Similarly, this 'high definition' map can serve to carry out a situation analysis on accreditation of Schools of Public Health and their courses, and prepare the proposal for actual accreditation process and criteria; it was noted that the process of accreditation will need adequate and stable funds in order to ensure good follow-up and not to have it done as a 'once-off' exercise;

- A third use of the 'high definition' map is that it will allow bigger countries (or between smaller countries who collaborate in education) to better balance the range of professions in public health programmes in each country;

- And, lastly, the group suggested that it would be helpful to conduct a study to understand better how Schools of Public Health can become better motivated to cooperate in the region or continentally.

7. Conclusions and next steps

7.1. Conclusions and next steps

Increasing the link between research and public health education

The Wellcome Trust is one of the organizations traditionally interested in individual capacity building particularly in tropical diseases research capacity; however, it had just has announced a call for proposals aimed at increasing capacity at African institutions – in networks or clusters – to conduct research in tropical diseases; two meetings have been organised (in 2007): in Kisumu, Kenya, in April and another is scheduled for November in Cape Town, South Africa; most of the participants at these meeting are biomedical practitioners; this is clearly one of the areas where public health is still seriously under-developed; meeting participants were encouraged to look at this and future calls for 'institutional capacity building' and become part of groups submitting proposals;

An African agenda for public health capacity building

The right process for public health capacity building in Africa is that institutions in Africa convene and develop the agenda for public health strengthening in Africa – and only then start looking for funding; funding should not determine what should be done; This can be started in individual countries who should determine their public health needs, attempt to secure funding for addressing these, even if funding available does not address all public health issues; in this manner, countries are still able to develop expertise in areas that are their priority areas;

Institutional capacity building in public health

Public health practitioners must ensure to clarify what goals and impact they want to achieve, and need to take responsibility to communicate this clearly to policy makers, donors, research funders and the public; one strong way of communication is through national or regional associations of public health;

The topic of 'institutional capacity building in public health' could not be brought to full conclusion because of time constraints; however, the discussion was very helpful to start the discussion on this under-developed issue and bring out information that can be applied; it was noted that it is not necessarily individual practitioners that make public health of high quality : in the US, for instance, it is total of the activities and cumulative function of the institution that determines this. Africa has not been able to develop the mechanism for such impact at individual institutional level or at regional and continental level such institutions; the establishment of Association(s) of Schools of Public Health will be a key institutional capacity needed to improve the impact of public health in Africa in future..

Regionalisation

A lot can be learnt from the LIPHEA model in the short term by other regions – what was done, what went really well, and what did not materialize; it will then be an example of regionalisation in public health and may be able to assist others; at the same time, LIPHEA has a responsibility to succeed on its own and to communicate their successes and failures to others in Africa interested in regionalisation.

Leadership issues

To enhance the development of leadership in public health in Africa, those involved in public health need to be able to meet – much of what is called 'leadership' is not born in isolation, but developed in close relationship with the issues being addressed; for that reason, it was suggested that there need to be at Pan African level – opportunities for exchange, growth, building an African community of practice in public health by **enabling Schools of Public Health in Africa to meet once or twice a year** around specific themes; while the outcome of this may not be immediately measurable it will bring together people who are directly and indirectly involved in public health training and who do not meet now;

Increased collaboration

Obtaining support and resources for developments within (individual) Schools of Public Health along the lines of curriculum development and refinement, research, communication and leadership development along the lines of the flagship initiative LIPHEA is needed as internal resources are generally low; if African institutions can show greater cooperation across the continent, this could probably attract more funding support; however, such cooperation should be defined in terms of what good the additional investment do for improving the lives of people in the region in a quantifiable manner. Other aspects of increased collaboration that were mentioned are:

- Examine existing partnerships : how did they develop; which worked and which did not; why are Schools of Public Health networking? What are the objectives of the networking? It is clear that networking proposals without clear objectives will not be able to attract funding;
- The organisers (of this meeting) need to identify the Schools of Public Health from countries who were not represented at this meeting to ensure that they will also benefit from the learning of this meeting;
- Donors should be called upon to invest 'seed' funding into initiatives or innovations in collaboration that seem to move public health capacity development forward; from there learning and broader diffusion can be done;

Practical suggestions that participants should consider on return to their home institutions:

1. Some of the Schools of Public Health present should go back to their countries and attempt to initiate or revive the **national associations**; perhaps in a year from now we should return to see if there is a possibility of establishing a **Pan African Network of Schools of Public Health**? All felt this needed to happen, and, moreover, needed substantial funding guaranteed for an extended period to build the capacity needed;

2. **Those representing Francophone countries emphasized that a Pan African network is essentia**l because many countries in Francophone Africa have no public health school or association and many smaller countries have no access to external Schools at this time; these countries will have no benefit from strong programmes in East Africa, for example, no matter how good these are for their region; if AfriHealth want to help Africa, we need to go beyond regional initiatives and 'think bigger';

3. Because of the need for external support that is needed to establish a Pan African Association, several participants felt that a focus on **regional public health associations** will have better chances of succeeding, and should perhaps be the first priority (over a pan African association) – especially given existing resource limitations;

4. At the same time, it was clear that this Arusha meeting took place as a first to many because networking in **Africa is so difficult**; one suggestion is to ensure that at least each country will have a contact person whose responsibility it is to initiate local networking and involving countries which do not have public health associations; it was noted that even a regional organisation cannot push for activity in a country where nothing exists without support from inside the country;

5. **Networks should only be set up with clear objectives**; a feasibility study could be conducted, for example, on standardizing curriculum – drawing appropriate lessons from LIPHEA and also on improving public health training at certain levels. The networking goals should be measurable;

6. **COHRED has started a new service : 'Health Research Web'** ; this project is a platform for 'country-based information on all aspects of health research' for low and middle income countries; the way its information is structured can make it a useful tool in building the Pan African or regional networks; if public health research is linked to public health training, HRWeb can become a way in which to integrate collaboration in public health research regionally or continentally (or, of course, within countries in the larger countries); (http://www.cohred.org/healthresearchweb)

7. As the meeting drew to an end, a few quick suggestions were made:
   - **Circulate an email within three months** to which all participants, about follow up steps that have already been undertaken?
   - Should a **virtual group** be formed that will take this forward given the fact that this particular group may not be able to meet again soon;
   - Creative ways have to be figured out on **how to continue communication** even if informally. An anchoring date for a next meeting (in person or virtually) could be set to move the process forward.

7.2. Reactions and Feedback

Participants expressed confusion about the apparent overlap of purpose and vision of the ongoing or existing networks that had presented earlier in the morning. The question was asked whether some of the organisations and their activities could not be merged or streamlined for higher impact. Unfortunately the working groups did not have enough time to discuss many of these issues to the depth they would have wished, but felt this should be addressed in future.

The meeting was really appreciated by all – it was a 'first of its kind' – and clearly led to a realisation that there still is a lot of development to be done in advanced public health education; it was felt necessary to set a time frame so that Schools of Public Health in Africa can plan to meet again and discuss the major outcomes of this meeting and of the recommendations emerging from the final report of AfriHealth Phase 1 project; it is important to set a meeting in a reasonable time to avoid losing – the momentum that has been generated by this meeting; it is also important to establish a way of communicating with each other even if this can only be done in an informal way.

7.3. Concluding remarks

Carel IJsselmuiden thanked all participants for a good workshop; within limitations of the organisation, COHRED will help with the continuation of what was started today. A first output will be a report to both participants and donors, and, specifically to the Rockefeller Foundation whose funding were core to AfriHealth; we will strongly motivate for substantial investments in public health education as a result of this meeting.

Although it was an excellent meeting, he expressed disappointment about the lack of donor commitment to public health. One of the less visible reasons for the success of the AfriHealth meeting in Pretoria in April 2004 and the subsequent development of LIPHEA was precisely because there was a priori donor commitment: there was one donor (in this case USAID) which had decided to invest a substantial amount of funding over a long period of time and they came to Pretoria to ask African Schools of Public Health how this funding could best be spent to develop public health centres of excellence. The Arusha meeting organisers had tried their best to achieve the same commitment from donors coming to this Arusha meeting, but without success. Consequently, there is a serious resource constraint in following up from this meeting – which does not mean that we should despair: there is much in this report that can be undertaken without outside funding, and this report will be distributed widely to achieve the donor commitment needed.

This conference did show, however, the need for as well as the potentials of leaders in Schools in Public Health in Africa. Given that internationally, the support for health systems development is increasing again, and that research as part of health, social and economical innovation is again being seen as key to development of low and middle income countries, Schools of Public Health can help themselves and their continental associations by ensuring that their programmes impact on health services, health status and research for health. Finally, there is a new wave of 'institutional capacity building' funding drives coming, and preparing for

these by establishing active networks with key research institutions and with Schools of Public Health in neighbouring countries is a good way of being prepared to take advantage of these.

Thomas Nchinda thanked everybody for attending this important one-day, intensive meeting. He said participants started out with expectations most of which reflect the challenges facing the African continent in the important area of public health work force and its development.

The small groups discussed different areas pertinent to public health in Africa, including networking, research and accreditation and whether or not to form regional as opposed to an Africa wide association. Highlighting the desire for strong research links, this meeting decried the rather low research outputs from African public health institutions, especially in operations research, which is needed by ministries of health. This way, public health professionals fail in their responsibilities to the public. However, the reasons for not doing this are probably varied and include lack of funds, inadequate training, absence of peer support in research and the absence of a tradition of research in public health.
Multidisciplinary training has been strongly emphasized. Public health is not a domain for one group of professions – doctors, nurses and hygienists – to the contrary, Public Health now includes many disciplines.

The session by donors and partners gave participants a sample of the perspectives of our partners, their vision and future thrust of the activities of their organizations. Some, for example, have diversified their funding base and taken on other partners so as to have joint funding. USAID now obtains funds elsewhere apart from government. This provides more flexibility in funding projects. It is important for Schools to know what they need and how to apply for funds. Laura, for example, stressed on the true meaning of initiatives particularly as this was a strong basis for raising funds. These are difficult times, but we should not get too concentrated on the issue of funding. It is important to remember that if we do not have capacity to develop good and strong public health institutions then we cannot achieve much and cannot obtain appropriate funding.

Thomas finally stressed that we have to think Pan African even if we have to start by acting regionally but, in thinking that way, we have to operate realistically. It is worth reminding ourselves that acting regionally means moving in tandem with the political will of the people via the regional health organizations (EAC, SADEC and ECOWAS). The political agenda cannot be bypassed. Efforts have to start in small steps taken probably at the national level and moving on to the regional level. Government relationships have to be cultivated because skipping them would mean that public health will be ignored and accessing funds into the institutions will hampered. In his view, a strong pan-African Association will thrive best if backed up by strong national and regional Associations.
Schools of Public Health should, wherever possible, be linked to some of the known large-scale national research projects, programmes and institutions in the individual countries. In this way training programmes will be linked to good on-going research activities. Such links will have trainees, teachers and the institutions working together and doing focused and relevant research. This may well generate additional funds.

Finally, Thomas thanked Derrick Wong for his facilitation which really made for a good meeting where all contributed and times were kept, and he wished all participants bon voyage.

Appendix 1 AfriHealth Meeting
10 November 2007, Arusha, Tanzania

Agenda

08:00		Welcome and opening of workshop Introduction of co-chairs and of the facilitator	Thomas Nchinda
08:45		Review of workshop agenda and process	Derrick Wong
09:00		Introduction and expectations of participants	all
10:00		**Core findings of the AfriHealth study**	Carel IJsselmuiden
10:45		Questions and comments	all
11:00		Coffee/Tea Break	
11:15		**Existing regional associations**	
	11:15	LIPHEA	Geoffrey Kabagambe
	11:50	Other regional public associations	
		PHASA	Shan Naidoo
		ECSAPHA	Deo Sekimpi
		EAPHA	Duncan Ngare
	12:05	Discussion	all
12:20		**Panel presentations by partners**	
		Higher Education for Development (HED)	Christine Morfit
		Rockefeller Foundation	Charlanne Burke
		Aga Khan University, East Africa	Laetitia King
		World Health Organization	Alena Petrakova
		Tulane University	Laura Haas
	12:45	Discussion	all
	12:55	Preview of small group work	Derrick
13:00		Lunch	
14:00		Review of afternoon agenda	Derrick
14:15		**Small group work** : for each group the following Cross-cutting issues needed answering: • How do define, analyze and approach the issue? • How can we work with potential partners? • How do we move forward?	all
15:15		Coffee/Tea Break	
	15:30	Group A : Networking/Networks/Associations	
	15:55	Group B : Linking Education and Research in Public Health	
	16:20	Group C : Multi-disciplinary education and training	
17:00		Next steps	all
17:45		Any other issues	all
18:00		Reactions and Feedback	Derrick
18:30		Closing remarks Thomas Nchinda	Thomas Nchinda
20:00		Dinner in Hotel Impala	

Appendix 2

AfriHealth Meeting
10 November 2007, Arusha, Tanzania
Participants

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Networking for Public Health Capacity:

Mapping Current Institutional Capacity for Africa

Proposal to the Rockefeller Foundation

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Background

This proposal is a follow-up of a meeting of 38 public health professionals from across Africa, as well as a number of representatives from Asia, who met on April, 5th and 6th, 2001, in Pretoria, South Africa, to discuss the potentials and limitations of *"Networking to enhance public health capacity in Africa"*.

During this meeting, **public health capacity** was defined as the ***'ability of the health sector to identify and effectively address ongoing and emerging health problems'.*** Recognizing the critical need for urgent and comprehensive health action in Africa, and in the developing world in general, and recognizing the contribution that well-resourced networks can make in this area, several crucial issues emerged from the Pretoria meeting. These issues form the basis for this proposal, and are outlined below.

Context, Rationale and Objectives

In most African countries, as in many other developing countries, **health is in crisis**. On a global scale, many countries had recorded significant health gains by the end of the 20th century, but these gains did not occur uniformly. In addition, at this point in time, the health gains made in Africa are at risk of being reversed: mostly due to the devastating epidemic of HIV/AIDS, the recrudescence of tuberculosis, the continued scourge of malaria, other preventable diseases, and health risks often associated with increasing poverty. At the same time, the steady growth of chronic diseases, injuries, and consequences of environmental stresses, both locally and globally, are posing new challenges to the health of people in Africa, and threaten to overwhelm its under-funded and chronically fragile health systems.

Furthermore, in many countries, especially in Africa, health development has been constrained by poor economic performance, a massive debt burden, and by a variety of natural disasters varying from droughts to floods. Political turbulence in many countries has disrupted development including developments in the health sector. There has been an overall increase in poverty and health inequalities within and between countries in Africa, and between Africa and other countries, especially those in the 'north'.

At the same time, there is a new optimism growing in spite of these problems. Across the developing world, globalisation in communication and learning has contributed to an ever increasing democratisation and accountability of politics. Combined with attitudinal changes in donor countries and institutions, there is a much stronger awareness of the need to phrase answers to problems in terms of local ability rather than of foreign assistance interests. In the African context, this new optimism finds its most visible expressions in the current concepts of the "African Renaissance", the "Millennium Africa Recovery Program" (MAP), the "New Africa

Initiative" (NAI), and the conversion of the Organisation of African Unity (OAU) towards a more effective organisation with the name of the "African Union" (AU).
The core of these changes is a drive by Africa to take responsibility for its own governance, democratisation, respect for human rights, and development agenda setting. While it is too early to judge the success of these new political realities, they are so eminently appropriate that the meeting of G8 countries in Genoa, Italy, this year endorsed these developments as the basis for development collaboration for the future. Within the health sector, these changes portend new opportunities for intervention and capacity building to support both health and development in Africa in the decades to come.

This proposal focuses on increasing public health capacity in Africa through generating an evidence-based network with sufficient scientific and political credibility to enable it to contribute substantially to the improvement of public health capacity in a sustainable manner, and to continental health action in which priorities for Africa will, in the first instance, be determined by Africa itself.
In this process, we will seek to engage both the 'South' and the 'North' as key partners, and will take advantage of opportunities provided by globalisation, in particular by the rapidly improving communication technology.

SUMMARY of Objectives

The key elements of this proposal include i) developing a continental approach to improving public health in line with new socio-political realities, ii) strengthening public health capacity by networking, and iii) promotion of technology-supported (distance) learning. The specific objectives are:

1. **Mapping of Public Health Capacity IN and FOR Africa**
   a) Map existing public health training and education institutions and programs (university or equivalent) in Africa;
   b) Map and prepare an inventory of existing research networks focussing on the improvement of public health capacity (policy, programs, etc)
   c) Assess and prepare a list of public health training programs in the 'north' (north America, Europe, Australia and New Zealand) that have a major focus on public health education for or in Africa;

2. **Assess 'technology-supported distance learning' capacity IN and FOR Africa**

3. **Explore opportunities for Network Development and Dissemination of the information acquired by the project**
   to facilitate the mapping activities and to prepare a Pan African Public Health conference at the end of 2002 or early in 2003.

Expected Outcome: It is anticipated that this short-term initiative will lead to the formation of a well-resourced African network that extends well beyond the current PHSWOW.

1. **Mapping Public Health Capacity:** Understanding the capacity (or lack of it) of African institutions and individuals to impact on health in the continent

At this time, we do not know the extent and deficiencies of continental resources that can influence public health, and we are therefore unable to plan optimal use and expansion of this capacity. Africa is not alone in this: the recent Canadian, Latin American, and American efforts to "measure public health practice capacity" are examples that hold important lessons for developing countries, including Africa, in terms of possible methodologies to address this issue.

However, these latter initiatives are large, long-term (3 years and more) efforts of relatively well-endowed countries. Given the scarce financial resources in Africa, and the urgency for public health action in many areas, we propose to start small and build a group / network that can potentially undertake the larger "public health capacity assessment" efforts in the near future.

The relevance of a continental approach to public health is one of the cornerstones of the new developments in the pan-African economic and political action agenda: this proposal is intended to be synchronous with the 'New Africa Initiative'.

For the larger public health capacity assessment and enhancement to happen, it is important that a smaller and more rapid assessment be undertaken in 2002, which will focus on only a few key aspects of public health capacity, namely to:

i) Create and maintain an inventory of public health training institutions across the continent of Africa;

ii) Generate and maintain a provisional listing of 'northern' (USA, Western Europe, Australia, New Zealand) institutions that devote an important part of their public health capacity building efforts to Africa; and

iii) Establish and maintain a listing of existing networks whose activities are directly or indirectly linked to health protection or promotion in Africa (e.g. INDEPTH, AfriCLEN), and their ability to respond to ongoing and emerging health needs.

learning environment. This group ("Telematic Learning and Education Innovation" or TLEI) is able and willing to assist in the capacity assessment. There are also other institutions engaged in 'telematic' education on the continent, and all will be included in a capacity assessment.

As distance learning and technology supported education will be a key component of future public health capacity strengthening on the continent, it is urgent that a rapid assessment be undertaken in 2002 that will focus on this aspect:

iv) To conduct a region-wide assessment of capacity in this field, and to determine what is needed to make technology and learning work for public health training in Africa;

3. Re-thinking Network Development

Stating that well-resourced networks can make an impact on public health practice and training in Africa is stating the obvious. What is critical for future networks, however, is the understanding of opportunities, potentials and limitations of linkages and networks between 'southern' institutions in general, and between institutions and networks in Africa in particular.

In Africa, public health practitioners, academics, researchers, and advocates across the continent are often very familiar with their counterparts in 'northern' institutions but not with those within Africa. In order to enhance information sharing, it is crucial that a mechanism be established that can bring continental expertise together regularly and productively.

Secondly, in order to increase the voice of the 'South' in international health debates, and to create opportunities for public health institutions in the 'South' to access development resources for education and research on a collaborative basis, it is essential that the 'South' develops a coherent view through a body or network in public health that can act on its behalf.

Thirdly, over many years, technical training has been provided to many professionals in the developing world in an effort to enhance the capacity of health systems. Chronologically, *"subject specific / technical training"* was followed by emphasis on *"health management training"* , and, more recently, *by "monitoring and evaluation training"*, in an attempt to cover key components of the health system. In terms of 'public health capacity', however, the specific nurturing of African leaders in the health field has been neglected. The paucity in **public health leadership** is further exacerbated by the increasing brain drain that is prevalent in most Africa countries due to socio-economic and political factors, which limit resources for meaningful public health engagement. It is anticipated that the development of a well-resourced public health network will lead to the formulation of a regional approach to **increasing capacity for public health leadership**.

For this purpose, the Pretoria meeting set a up an interim group (the "Pretoria Committee*", for lack of a better term*) to develop opportunities for strengthening current networking activities and prepare a proposal for the creation of a structured network of committed people and institutions in Africa aiming to enhance public health practice and research (with links to selected 'Northern' institutions and other 'Southern' networks and institutions), based on the findings of the first parts of this proposal.

The committee will also prepare an agenda for a regional meeting of public health networks and training institutions in Africa, the purpose of which will be to further the aim of enhancing public health through 'South-South 'collaboration and collaboration with selected 'Northern' partners.

In order to enhance the overall outcome of the institution/network mapping, the Pretoria Committee needs to disseminate information and initiate action on important findings. Ultimately, the actions need to ensure that 'South-to-South' and African continental networking will become a reality, with resultant public health action:

v) Plan for a Pan African public health conference in 2002 or early 2003

vi) Explore opportunities and propose a plan for offering sustainable leadership training for public health in Africa, for implementation in 2003 at the latest

Methodology & Activities

1. Operationalizing the Pretoria Committee

The group that will execute this work is key to the success of this initiative. At this time, three sub-groups have been identified as follows:

- The Pretoria Committee

Members of the group that met in Pretoria in April 2001, which includes individuals involved with / representing the PHSWOW, AfriCLEN, and INDEPTH. The Committee chair is Carel IJsselmuiden. This committee will be responsible for managing the entire process towards completion.

- Reference Group
  Specific individuals in Africa who are key leaders in public health. Some attended the Pretoria meeting: in particular Prof Ade Lucas and Prof Mugambi, both of whom have agreed in principle to be the consultants for west and eastern Africa respectively. Others, representing north and central Africa, will still be identified.

- Consultant Group
  Africa mapping consultants, North-America assessment consultants, Western Europe and Australasian assessment consultants *(**Note:** most of the potential consultants have been identified and are willing to participate) and* consultants for technology assisted learning ***(Note:** The Africa-based consultant has already been identified.)*

2. Mapping public health training and research networks in Africa

This activity will be undertaken through consultancies, surveys and visits. The main activities will be as follows:

- Planning of the time-table and activities
- Identification and contracting of consultants
- Preparation of terms of reference and measurement tool(s), using a modification of existing tools for public health capacity assessments done in Latin America, Canada and the USA, and in India (Kerala). This will be done through e-mail, and possibly a meeting to finalise the assessment methods and tools.
- Executing the survey(s), with site visits where necessary, of academic institutions offering education and training in public health, which will include staffing, programs offered, graduates produced, language capabilities, technology-supported learning capabilities, (where possible)sources of funding, index of current south-south, and south-north linkages, participation in networks, internal institutional communication.
- Assessment and listing of active networks, indicating main areas of operation, access, years of existence, links with southern networks as well as northern based networks, and other matters of relevance to public health capacity. This includes contact with and exploration of other Rockefeller-funded tertiary education strengthening endeavours.
- Conduct literature and internet survey .
- Prepare report: (to be completed 6 months after start of the project).

3. Mapping public health education capacity in developed countries FOR Africa

- Preparation and agreement of terms of reference with consultants.
- Submission of consultant's report: within 4 months of initiation with recommendations for north-south linkages.

4. Assessing continental ability to use 'technology-supported distance learning' to strengthen public health training capacity in Africa

- Preparation and agreement of terms of reference, and identification of consultants
- Executing a survey of African and other institutions active in Africa, engaged in technology-supported (web, television, satellite) distance learning, including an assessment of strengths, weaknesses, opportunities, threats, and magnitude of operations (each, by country, by region, continental).
- Listing of technology-supported learning in/for Africa; and recommendations, (Report to be ready within 8 months of starting project).

5. Network development and health leadership

- Two meetings of the Pretoria Committee (at least one in July 2002).
- Plan for a Pan African Public Health conference.
- Organise this conference for approximately end 2002 or early 2003.
- Agree on terms of reference/architecture for a regional or continental public health network(s), on planning, support, and management before the Conference, and for presentation at the Conference.
- Seek support from African Union and other political, scientific and donor institutions.
- Explore opportunities for Leadership training (including link with other leadership training initiatives, e.g. the National Health Research and Development Center's proposed meeting in Mombasa, Kenya-supported by RF).
- Prepare set of objectives and educational approaches for leadership training in Africa.

Appendix 4

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Research

Mapping Africa's advanced public health education capacity: the AfriHealth project

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Objective Literature on human resources for health in Africa has focused on personal health services. Little is known about graduate public health education. This paper maps "advanced" public health education in Africa. Public health includes all professionals needed to manage and optimize health systems and the public's health.
Methods Data were collected through questionnaires and personal visits to departments, institutes and schools of community medicine or public health. Simple descriptive statistics were used to analyse the data.
Findings For more than 900 million people, there are fewer than 500 full-time staff, around two-thirds of whom are male. More men (89%) than women (72%) hold senior degrees. Over half (55%) of countries do not have any postgraduate public health programme. This shortage is most severe in lusophone and francophone Africa. The units offering public health programmes are smal : 81% have less than 20 staff, and 62% less than 10. On the other hand, over 80% of Africans live in countries where at least
one programme is available, and there are six larger schools with over 25 staff. Programmes are often narrowly focused on medical professionals, but "open" programmes are increasing in number. Public health education and research are not linked.
Conclusion Africa urgently needs a plan for developing its public health education capacity. Lack of critical mass seems a key gap to be addressed by strengthening subregional centres, each of which should provide programmes to surrounding countries. Research linked to public health education and to educational institutions needs to increase.

Bulletin of the World Health Organization 2007;85:914–922.

Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español.

ةلاقلما هذهل لماكلا صنلا قياهن في قصلاخلا هذهل قيبرعلا قمجترلا .

Introduction

In most African countries, health is in crisis. Staffing and resourcing remain serious problems in al aspects of health care,[1] including essential public health functions and research.[2] At the same time, there is a new optimism: Africa is definitely not where it was 50 years ago.[3] Many years of capacity-building have increased the number of senior staff in spite of the continued "brain drain", and globalization of communication has contributed to an increasing democratization and accountability of education and politics. Combined with attitudinal changes in donor countries and institutions,[4] there is a stronger awareness of the need to phrase answers to problems in terms of local ability rather than of foreign assistance interests, although problems in "vertical programming" remain.[5] While it is too early to judge the sustainability of these political realities, it is time to greatly enhance system support to enable nations and regions in Africa to govern and manage their health sectors. In particular, it is high time to enable Africa to educate its own leaders in public health – those needed to execute essential public health functions, improve system performance and form an African voice for public health.

Project rationale, history and scope

Academic education in the health sciences in Africa tends to follow the models used in the countries that colonized Africa. Medical faculties, now often faculties of health sciences, provide training for medical and paramedical staff concerned with direct patient care. On the other hand, field-level public health workers or laboratory personnel usually train at technical colleges or through in-service courses. Medical scientists and doctoral-level researchers are educated in only a few countries, usually through a combination of practice in research institutions and degree training in African and global universities.

A category of health worker not being adequately catered for is the public health professional, defined in a broad sense as those responsible for providing leadership and expert knowledge to health systems at district, provincial, national and international levels to manage the health of the public. Graduate education in public health is mostly done through departments of community health or community medicine, usually located in faculties of medicine.

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Access to programmes was – and often still is – open to health professionals only, often only to medical doctors. Starting in the 1970s, some departments became institutes or schools of public health. There was a brief attempt to network these emerging public health institutions to help standardize educational programming with the formation of the Network of African Public Health Institutions (NAPHI)6 in Uganda in 1995, but this did not develop further.

At the AfriHealth project's start in 2001, there was neither a vision for developing capacity to educate staff to manage health systems and public health, nor plans for educating sufficient personnel to manage and develop health systems in Africa. Medical and health science faculties, business schools and schools of public administration all tended to ignore such concerns. With the exception of a Rockefel er Foundation initiative in the Democratic Republic of the Congo, Ghana, Uganda and Zimbabwe (Public Health Schools Without Walls (PHSWOW)),[7,8] little multidisciplinary, system-oriented training in public health was available in Africa. No continent-wide assessment of high-level personnel in public health or academic public health capacity had been done.

Yet the interventions needed to deal with health problems in Africa were becoming ever more "system intensive".[5,9,10] There is an increasing need for a sufficient number of African public health professionals and for plans to educate them to provide expertise and leadership for health systems management, transformation and research. The New Partnership for Africa's Development (NEPAD) Health Strategy of 2003 cal ed for increased public health training capacity in Africa.[11] Yet recent studies focusing on human resource requirements for health[1,12,13] do not elaborate on these core personnel to manage and develop health systems.

AfriHealth set out to map advanced public health education capacity *in* and *for* Africaandtounderstandinformationtechnology's roles in enhancing this capacity. First information on education for Africa would al ow an estimation of the external funding available and of the institution-building effect that scholarship support could make if more were spent in Africa. As it proved impossible to obtain reliable information about public health education *for* Africa, this paper cannot report on this issue. Second, understanding the potential of information technology to strengthen continental capacity for public health education is essential given the dispersed nature of public health institutions. This aspect was reported elsewhere.[14] This paper, then, presents the first map of university-based public health education capacity in Africa.

Methodology

To guide the project design and implementation both external and local advisory groups were established. The basis for data collection was a questionnaire and interview schedule dealing with coursework, students, staff, facilities, funding and information on international col aboration. A group of African experts fluent in either English, French or Portuguese was convened to administer these questionnaires and interviews. Heads of all departments or schools in Africa were first contacted by telephone and e-mail, and then were sent the questionnaire. This was followed up by telephone contact and personal visits. Completed questionnaires were checked for missing items. Data were collated and analysed using Microsoft Excel and simple descriptive statistics.

Data collection started in November 2001 and continued until June 2003. Provisional reporting was done then, although the data were incomplete. Completion and updating resumed in June 2006 with the help of the School of Public Health at Makerere University in Kampala, Uganda.

Information obtained on public health training in several countries indicated that training was given but was not at the level of a master's degree in public health (MPH) or higher. No information was sought on these countries in the second part of this study. The countries included are:

- **Burundi** was in the process of establishing a National Institute of Health (joint university/ministry of health). No information was sought in the second round of the survey.
- **Cape Verde** had health management training for lusophone countries that it may restart, in collaboration with University Jean Piaget, to train nurses at advanced public health level. No information was sought in the second round of the survey.
- **Democratic Republic of the Congo:** The questionnaire for the first round of the survey was returned for the University of Kinshasa. No information was obtained for Lubumbashi University.
- **Eritrea** had one institution, the University of Asmara. In the second round of the survey, the department was being restructured and could not provide information.
- **Libyan Arab Jamahiriya:** training occurred in medical schools. There are apparently seven departments of community medicine. No information was sought in the second round of survey.
- **Madagascar** offered a postgraduate diploma in public health; started an MPH programme with WHO fellowship support; approximately 30 students. No more information was sought in the second round of survey.
- **Mauritius** had no medical school; Mauritius Institute of Health organizes short courses in reproductive health (three months) and in information technology for health workers.
- **Niger** trained nurses at university level jointly with University of KwaZulu-Natal. No information was sought in the second round of survey.
- **Togo** offered university training for nurses, including in public health.

Results

Table 1 provides an overview of university departments of community health and similar institutes and schools in Africa.

Overall, 29/53 countries (54.7%) offer no postgraduate training in public health, 11/53 countries (20.7%) have one programme and 11/53 countries (20.7%) offer more than one programme. If the analysis is stratified by language group, major differentials appear: anglophone sub-Saharan African countries as wel as those in north Africa have more developed postgraduate public health training programmes than francophone, lusophone and the one Hispanic country (Table 2).

It is obvious that the largest gap occurs in lusophone countries (91% of the population lives in countries without graduate public health programmes) followed by francophone Africa (34%; Fig. 1, Table 2).

Bulletin of the World Health Organization | December 2007, 85(12

Table 1. **Countries with postgraduate public health (PH) training programmes**

Country	Institutions with postgraduate PH programmes	Language (region for north Africa)[a]	Population (thousands)[b]	Comments
1 Algeria	4	N	32 854	–
2 Benin	1	F	8 490	MPH awarded by university; regional course; multilingual planned; WHO-supported.
3 Cameroon	1	F[c]	17 795	–
4 Côte d'Ivoire	1	F	18 585	Offers a 4-year certificate d'étude speciale en sante publique; to see this as more than MPH it must come out of list of no-training.
5 Democratic Republic of the Congo	2	F	58 741	–
6 Egypt	13	N	72 850	All departments of PH except Alexandria; there are more than 13 institutions.
7 Ethiopia	3	A	78 986	Addis Ababa, Jimma, Gonder.
8 Ghana	1	A	22 535	–
9 Kenya	6	A	35 599	Moi, Nairobi, Amref, TEACH; MPH in zoology in Kenyatta; Maseno: MPH; Kenya Methodist Univ: MPH.
10 Malawi	1	A	13 226	–
11 Morocco	4	N	30 495	–
12 Mozambique	1	L	20 533	Aimed at Mozambique only; CRDS intends MPH and short courses as well – focusing on epi and health systems.
13 Nigeria	11	A	141 356	–
14 Rwanda	1	A[c]	9 234	MPH, USAID funded through National University of Rwanda.
15 Senegal	1	F	11 770	–
16 South Africa	8	A	47 939	–
17 Sudan	2	N	36 900	–
18 United Republic of Tanzania	2	A	38 478	Kilimanjaro Christian Med Coll – MPH; Muhimbili MUSPH.
19 Tunisia	6	N	10 105	–
20 Uganda	1	A	28 947	Mbarara: began MPH e-learning with Lund University, Sweden in 2005.
21 Zambia	1	A	11 478	–
22 Zimbabwe	1	A	13 120	–
Totals for the 22 countries listed	**72**	–	**760 016**	–
Totals all countries	**53**	–	**922 013**	–

CRDS, Centre Regional de Desenvolvimento Sanitario (Mozambique); MPH, master's in public health; MUSPH, Muhimbili University School of Public Health; TEACH, Tropical Institute of Community Health and Development in Africa.

a A, anglophone; F, francophone; H, Hispanic; L, lusophone; N, north Africa.

b All numbers used represent medium variant estimates for 2005.20

c Cameroon included with francophone countries; Rwanda with anglophone countries.

Table 2. **Distribution of public health education in Africa by language grouping**

Language group	Countries without public health education programmes	Population in countries without public health education programmes (thousands)	Total population in 2000	Percentage of total population in countries without public health education programmes
Anglophone Africa[a]	11/20	30 330	471 228	6.4
Francophone Africa[a]	18/20	106 473	221 854	48.0
Lusophone Africa	4/5	18 352	38 885	47.2
North Africa	2/7	6 358	189 562	3.4
Equatorial Guinea (Hispanic)	0/1	484	484	100.0
	53		922 013	

a Cameroon is included with Francophone countries; Rwanda with Anglophone countries.

In total, there are 854 staff members working in institutions offering postgraduate public health programmes, only 493 of whom work ful -time. Male staff is in the majority (63%) and this differential increases if having a doctoral degree is taken into consideration (73%). Viewed in another way, 89.2% of male staff have either a master's or doctoral qualification, in contrast to only 71.6% of female staff (Table 4).

The age-distribution of staff skews towards younger age groups: 15% are aged 35 years or younger, 66% are aged between 36 and 50 years, and only 19% is older than 51 years of age. There is therefore a shortfall of senior staff in institutions of public health. This study did not allow an understanding of this dynamic, including whether it relates to migration, illness, internal transfer to better-paying externally funded positions, or to other causes. Finally, there are few foreign staff members working in institutions in Africa: of the 554 staff about whom information was available, 11 (2%) were nationals from other African countries and 40 (7%) were nationals from outside Africa.

Most institutional units delivering postgraduate public health programmes are small, and rely heavily on part-time staff (Fig. 2).

If only ful -time staff is considered, over 80% of units delivering post graduate. public health education have 20 staff members or less, and well over 60% have less than 10 staff members. Six large institutions have 26 or more staff members or less, and well over Nationale de Santé Publique; in Egypt Menoufiya University; in South Africa the universities of Cape Town and of KwaZulu-Natal; in United Republi of Tanzania the Muhimbili University College of Health Sciences; and Makerere University School of Public Health in Uganda.

Characteristics of postgraduate programmes

Many postgraduate public health programmes remain traditional, with a narrow view of public health, limiting access to health workers or even to medical practitioners only. These characteristics stem from the fact that most graduate public health programmes emerge from departments of community health or community medicine that in the anglophone world tend to be in medical schools, and therefore limit intake to medical practitioners.

Many institutions offer short courses – either on their own, through research and service institutions or with and on behalf of foreign institutions and nongovernmental organizations. Few of these short courses are integrated into degree programmes, creating parallel and unintegrated approaches to post- cation being a less frequent reason for graduate programmes that further tax scarce human resources.

Distance learning is rare, as are on-the-job and on-campus programmes. Most notably, such programmes are found in the former PHSWOW institutions (Ghana, Uganda, Zimbabwe)[3] and in South Africa's schools of public health.

Few institutions have "north–south" links and even fewer have "south–south" links. The few well-known African institutes and schools of public health have many links – mostly of the former type and mostly in joint research programmes, with joint edu- collaboration. For all units combined, however, links with either type of institution are uncommon.

Student intake at the postgraduate level is over 1300 a year; as data on student intake in Egypt and Nigeria are incomplete, the total may be somewhat higher. In particular, the number of MPH courses in Africa is increasing rapidly, so the number of students graduating in public health annually is rising. There is much less growth in research degree students and courses (master's, doctoral or equivalent).

Most programmes target national needs, rather than regional or international requirements. Only three countries, or five institutions, specifically mentioned providing for or recruiting international students. Other institutions may accept external students but train primarily for national needs.

Linking education and research

The questionnaire did not ask specifical y about research components of curricula, but it is conventional that all master's and doctoral students engage in research projects. Institutions that offer post-graduate programmes in public health generally have a low research output, with the exceptions of larger schools and institutions of public health. Research output is much lower than student in-take, even counting only students with research degrees. Finally, in institutions where there are productive "centres of research excellence", postgraduate students do not seem to be engaged in these activities directly.

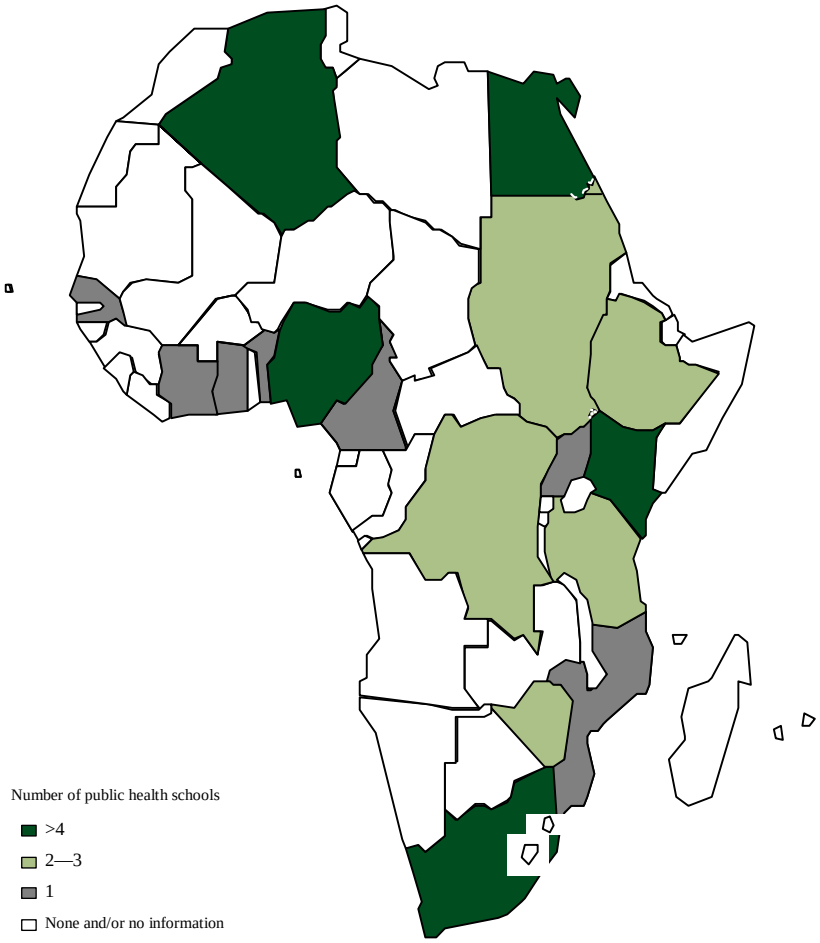
Conclusions and recommendations

Three limitations should be noted. First, in spite of the fol ow-up schedule, it was not possible to obtain comprehensive data on al countries. Second, this study could not measure public-health-related

training in, for example, tropical diseases research, medical research institutions, nursing schools, social science institutes or business schools due to lack of resources. While it is unlikely that this study will have missed major educational programmes in public health based on this limitation, it may have missed an individual innovative programme. Third, mapping results wil inevitably be quickly outdated. Therefore, there will be errors, omissions and inaccuracies in the data presented, but to the extent that such errors might influence the main conclusions and recommendations reached, we believe that the impact is negligible. The actual database is available from the web site of the School of Health Systems and Public Health at the University of Pretoria in a way that allows institutions to correct their data (http://afrihealth.up.ac.za/database/database.htm) or as a spreadsheet file (http://www.cohred.org/AfricaSPH).

There are critical gaps in advanced public health education in Africa. On the continent as a whole, there are 29 countries without graduate public health training and 11 countries with one institution or programme only. Training is done mostly by small units that lack the critical mass needed to expand the field of public health into the multisectoral effort it should be. The greatest shortages occur in lusophone and francophone Africa, and in the one Spanish-speaking country (Equatorial Guinea). There are only 493 full-time faculty in public health for the entire continent (854 if part-time staff are counted as well) and only 42 doctoral students and 55 master's-level students enrolled for 2005: together, these degrees can be considered to constitute the continent's public health research training capacity.

Fig. 1. **Mapping Africa's advanced public health education capacity: the AfriHealth project**



The master's degree in public health (MPH), however, is growing rapidly in anglophone and lusophone Africa. The questionnaire did not al ow comparison between programmes, and there may be substantial differences between MPH programmes. Public health research and public health education seem to be separate in all programmes.

As a colleague said about the findings of this study, "the total academic public health workforce in Africa could

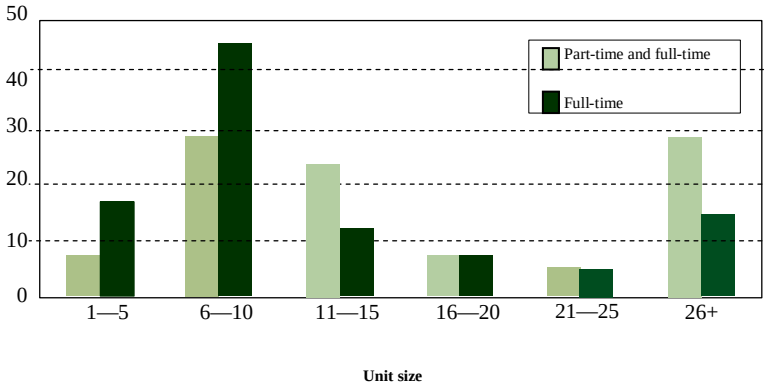
Table 3. **Academic staff characteristics: gender and source of salary payment**[a]

	Full-time			Part-time			Associate		
	Number of institution	Number of Staff	Average institution	Number of institution	Number of Staff	Average staff / institution	Number of institutions	Number of staff	Average staff / institution
Sex									
Male	38	298	7.8	36	157	4.4	–	–	–
Female	37	179	4.8	36	86	2.4	–	–	–
Salary									
Institution	38	414	10.9	35	126	3.6	31	129	4.2
External funds	31	79	2.5	32	52	1.6	31	54	1.7

fit into the department of epidemiology at Johns Hopkins". While this may not be factual y true, the overwhelming shortage of academic staff in public health in Africa is clear. While there is no clarity about an optimal number, less than 500 full-time academic staff distributed in smal groups across Africa are unlikely to deliver the public health leadership needed for nearly one bil ion people.

At the same time, public health education in Africa is in a dynamic phase. For example, some countries in which there was no previous public health education programming are establishing national institutes of public health that combine research and education. Regional col aboration in graduate programmes is becoming more frequent, as are "south–south" collaborations, and there are other developments. The study could not systematically measure future trends but the overall impressions are that public health is in a revival mode in some parts of Africa and that this can be built on for the continent as a whole.

Fig. 2. **Size of departments and institutions offering graduate public health education**



Where to from here?

Africa needs a plan for public health human resources that can become an explicit part of WHO's Human Resources for Health programme, of the agenda of the Global Health Workforce Alliance, of NEPAD and of the African Union. African institutions and external partners and ministries of health should engage by conducting relevant assessments nationally and regionally. Developed countries, whether partnering for financial assistance or for technical support, must make institutional capacity development a core objective. Part of preparing a plan for Africa should be an attempt to quantify the competencies and numbers of trained staff needed, so that African and other institutions can target their educational programmes better and avoid duplications and gaps.

The lack of critical mass in African public health is compounded by the small size of these postgraduate public health programmes: over 80% have 20 or fewer staff members. Priority interventions to strengthen public health education would include: first, supporting existing centres and creating new centres in public health practice; research and education with sufficient professional capability for multidisciplinary work; and innovation to develop African solutions to public health problems. Selection of sites for such centres could be done on the basis of language groupings, geographical distribution or the possibility of attaching such centres to existing "centres of excellence" in public health research. The concept of centres of excellence is sometimes seen as problematic, as these could increase inequities between countries. On the other hand, the recent Leadership Initiative for Public Health in east Africa illustrates that centres of excellence can be shared and can have a wider, subregional influence.[15] An added benefit of larger centres may be that they are able to attract African expatriates in a way that the many small units cannot. There is also a need to increase the proportion of research degree students at both master's and doctoral levels,[2] and larger centres offer more conducive environments for research.

Second, an investment in distance learning technology, educational as well

Table 4. **Academic staff characteristics: qualifications and age distribution**[a]

	Male			Female		
	Number of institutions	**Number of staff**	**Average**	**Number of institutions**	**Number of staff**	**Average**
Qualifications						
Doctorate	40	236	5.9	39	86	2.2
Master's degree	36	151	4.2	36	63	1.8
Bachelor's degree	33	41	1.2	33	41	1.2
No bachelor's degree	34	6	0.2	34	18	0.5
Total		**434**			**208**	
Age distribution						
< 35 years	34	44	1.3	35	40	1.1
35–50	36	261	7.3	35	113	3.2
51+	34	78	2.3	35	27	0.8
Total		**383**			**180**	

as technical, can assist greatly in optimizing use of existing resources.[14]

In the short term, access to the many disciplines that a wider public health education programme requires can be enhanced by flexible enrolment in existing programmes across faculties and universities. Academic institutions, faculties and departments can arrange coursework in more modular formats that allow students to take training in different departments and universities, even in different countries. This will make courses more multi-disciplinary and encourage standardization and benchmarking of public health education. The European Credit Transfer System may offer an example of how this could be done.[16] Regional groupings such as the East African Association of Public Health could spearhead such arrangements rather than attempts to do this at a pan-African level. This would also be in line with the efforts of the United Nations Educational, Scientific and Cultural Organization (UNESCO) to increase educational standardization and exchange between countries on the continent.[17] Easier credit transfer systems give students increased control over their education, increase diversity of learning and will help in quality control through standardization and benchmarking. However, on its own, credit transfer is not sufficient and is complex to implement, and should probably be considered a medium-term goal.

For public health to grow as a discipline, increase its impact and take on its potential role as a voice for health in Africa, it is essential to internationalize training, to open up to new students outside the health sector and to new academic partners so that many more sectors find a home in schools of public health. Linking public health research to public health education is essential to increase interaction between evidence and practice.

Support for the transformations needed in postgraduate education across the continent can be provided by an effective Association of Schools of Public Health for Africa. This can support standardization, accreditation, benchmarking and capacity-building; it can support efforts for institutional change; it can negotiate partnerships and seek additional resources; it can align institutional priorities and help create a voice for public health in Africa.

Funding for this wil have to come from external sources to help boost the current positive climate in public health. Besides direct support, funding can be increased by conducting as much as possible of public health training in Africa, so that scholarships start contributing to building African institutions. Programmes that prepare for system-intensive interventions need to invest in health system management disciplines, epidemiology, and monitoring and evaluation, and should do this in African schools of public health. Foundations, donors and international aid agencies interested in improving health in Africa in a sustainable manner should consider that schools of public health – in the widest multidisciplinary sense – are key in building the disciplines needed for sustainable health development and health equity. Fortunately, there is a growing interest in some bilateral aid agencies in supporting public health leadership building[15,18] and there is also an increase in charitable funding with the entry of new foundations.[19] Hopefully, these initiatives will be followed by others. ■

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Résumé

Cartographie des capacités de formation avancée en santé publique en Afrique – Projet AfriHealth

Objectif La littérature sur les ressources humaines pour la santé en Afrique s'intéresse principalement aux services de santé individuelle. On dispose de peu de connaissances sur les formations universitaires en santé publique. Le présent article cartographie les formations « avancées » en santé publique dispensées en Afrique. La santé publique regroupe tous les professionnels nécessaires à la gestion et à l'optimisation des systèmes de santé et de la santé publique elle-même.

Méthodes Des données ont été recueillies à travers des questionnaires et des visites individuelles dans des départements, des instituts et des écoles de médecine communautaire ou de santé publique. Des méthodes statistiques descriptives simples ont été utilisées pour analyser ces données.

Résultats Pour plus de 900 millions de personnes, le personnel de formation en santé publique n'atteint même pas 500 personnes à plein temps, dont deux tiers d'hommes. La proportion de détenteurs d'un diplôme supérieur est plus forte chez les hommes (89 %) que chez les femmes (72 %). Plus de la moitié des pays (55 %) ne disposent pas de programme d'enseignement en santé publique de troisième cycle. Cette pénurie est plus sévère en Afrique lusophone et francophone.
Les unités proposant desprogrammes de santé publique sont peu étoffées : 81 % d'entrée lles emploient moins de 20 personnes et 62 % d'entre el es moins de 10. Par ail eurs, plus de 80 % des Africains vivent dans un pays bénéficiant d'au moins un programme dans ce domaine et il existe six grandes écoles employant plus de 25 personnes. Les programmes de santé publique s'adressent souvent de manière limitative aux professionnels de santé, mais le nombre des programmes « ouverts » est en augmentation. Il n'y a pas de liens entre la formation et la recherche en santé publique.
Conclusion L'Afrique a besoin d'urgence d'un plan de développement de ses capacités de formation en santé publique. L'absence de masse critique semble un problème essentiel auquel il faudra remédier par un renforcement des centres subrégionaux, dont chacun délivrera des programmes aux pays environnements. Il faut aussi accroître les connexions entre la recherche liée à la formation en santé publique et les établissements d'enseignement dans ce domaine.

Resumen

Mapeo de la capacidad de formación avanzada en salud pública en África: proyecto AfriHealth

Objetivo Las publicaciones sobre los recursos humanos para la salud en África se han centrado en los servicios de salud personales, pero poco se sabe sobre la formación en salud pública impartida a los graduados. En este artículo se mapea la formación en salud pública «avanzada» en África. La salud pública abarca a todos los profesionales necesarios para gestionar y optimizar los sistemas de salud y la salud de la población.

Métodos Se reunieron datos mediante cuestionarios y visitas personales a departamentos, institutos y escuelas de medicina comunitaria o de salud pública, y se usaron estadísticas descriptivas sencillas para analizar esos datos.

Resultados Para más de 900 millones de habitantes, se cuenta con menos de 500 personas a tiempo completo, unas dos terceras partes de las cuales son hombres. Éstos poseen un título superior en mayor grado (89%) que las mujeres (72%). Más de la mitad (55%) de los países carecen de un programa de salud pública de posgrado. Esa escasez reviste la máxima gravedad en el África lusófona y francófona. Las unidades que ofrecen programas de salud pública son pequeñas: el 81% tienen una plantilla de menos de 20 personas, y el 62% de menos de 10. Por otro lado, más del 80% de los africanos viven en países en los que funciona como mínimo un programa, y hay seis grandes escuelas con una plantilla de más de 25 personas. Los programas suelen estar muy centrados en los profesionales médicos, pero el número de programas «abiertos» es cada vez mayor. La formación y las investigaciones en salud pública no están ligadas.

Conclusión África necesita urgentemente un plan para desarrollar su capacidad de formación en salud pública. La falta de una masa crítica parece un problema clave que habrá que abordar reforzando los centros subregionales, cada uno de los cuales debería proporcionar programas a los países del entorno. Es preciso ampliar las investigaciones vinculadas a la formación en salud pública y a los centros docentes.

صخلم

ميسرت تاردق ميلعتلا لياعلا ةحصلل ةيمومعلا في ايقيرفأ: عوشرم ةحصلا في ايقيرفأ

ضرغلا: تزّكر تاساردلا ةروشنلما لوح دراولما ةيشربلا ةيحصلا في ايقيرفأ لىع تامدخلا ةيحصلا ةيصخشلا. لاو فرعُي لىإ ليلقلا نع ميلعتلا لياعلا في لاجم ةحصلا ةيمومعلا. ّنيبتو هذه ةقرولا عضو ميلعتلا لياعلا في لاجم ةحصلا ةيمومعلا في ايقيرفأ. جردنيو تحت ةئف يلماعلا في ةحصلا ةيمومعلا عيمج يّنينهلما يمزلالا ترادلإا يسحتو ءاداُظنلا م ةيحصلا ةحصلاو ةيمومعلا.

ةقيرطلا: مت عمج تانايب نم للاخ تانايبتسلاا تارايزلاو ةيصخشلا لىإ ترادلإا دهاعلماو تايلكلاو ةصتخلما ةحصلاب ةيمومعلا وأ بط عمتجلما. تمدخُتساو قرط ءاصحلإا ةَّيفصولا ةطيسبلا ليلحتل تانايبلا.

تادوجولما: تنَّيب ةساردلا نأ ددع يلماعلا يغرفتلما ةياعرل 900 نويلم صخش لقي نع 500 ،لماع نأو لياوح مهيثلث مه نم روكذلا. ماك تنيب نأ ةبسن يلصاحلا لىع تاجرد ةيملع ةيلاع ديزت يب روكذلا)89%(لىع ثانلإا)72%(. لب نإ ثركأ نم فصن نادلبلا)55%(سيل اهيدل يأ جمارب ةحصلل ةيمومعلا في ىوتسم تاساردلا ايلعلا. دتشيو اذه صقنلا في نادلبلا ةيقيرفلأا ةقطانلا ةيلاغتبرلاب ةقطانلاو ةيسنرفلاب. ظحلايو ًاضيأ نأ تادحولا يتلا مّندقت جمارب ةحصلا ةيمومعلا ةيرغص مجحلا: وحنف 81% اهنم لمعي اهب لقأ نم 20 نم ،يلماعلا وحنو 62% اهنم لمعي اهب لقأ نم 10 نم يلماعلا. نمو ةيحان ،ىرخأ دجن نأ ثركأ نم 80% نم ةقرافلأا نوشيعي في نادلب مّدقُي اهب جمانرب دحاو لىع ،لقلأا نأو كانه تس تايلك بركأ ًماجح لمعي اهب ثركأ نم 25 نم يلماعلا. زّكرتو جمابرلا ًابلاغ لىع يّنينهلما ،يّنيبطلا نكلو ظحلاي نأ ددع جمابرلا)) ةحوتفلما ((ذخأ في ةدايزلا. لمو ظحلاي طابترا يب ميلعتلا ثوحبلاو في لاجم ةحصلا ةيمومعلا.

جاتنتسلا: جاتحت ايقيرفأ لىإ ةطخ ةلجاع ريوطتل اهتاردق ةيميلعتلا في لاجم ةحصلا ةيمومعلا. لثيمو راقتفلا لىإ ةاونلا ةيساسلأا ةوجف ةيسيئر يغبني يّندصتلا اهل نع ةيرط زيزعت زكارلما نود ،ةيميلقإا ثيحب مّندقي لك اهنم جمارب نادلبلل ةطيحلما هب. ماك يغبني ةدايز ثوحبلا ةطبترلما ميلعتب ةحصلا ةيمومعلا تاسسؤلماو ةيميلعتلا.

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