

# THE SUDAN HEALTH CONSULTANCY GROUP: A DECADE OF DIASPORA CONTRIBUTIONS TO PUBLIC HEALTH IN THE SUDAN

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#### ABSTRACT

Background and Purpose: The Sudan Health Consultancy (SHC) is a voluntary group which first came together in 2003. This paper follows from the group contribution to the First Diaspora Conference, and reflects on our recent journey to sustain our contributions to capacity building, research and development in the Sudan.

Approach: We have formalised our relationships from an informal voluntary group into a registered limited company with a network of networks.

Findings: Formal links have been established with the national Public Health Institute (PHI), Federal Ministry of Health (FMoH), Sudanese Medical Specialisation Board, the Community Medicine Association and universities. We have signed Memoranda of Understanding with the UK Academy of Royal Colleges and the Faculty of Public Health and we are currently delivering on the agreed work plans.

Conclusions: We highlight challenges and opportunities to formalise the Diaspora contribution. This paper concludes with our next steps, and suggests cross-sectoral initiatives to improve public health in Sudan.

Keywords: Sudan; public health; training; research; consultancy; continuing professional development; diaspora; Sudan Health Consultancy; SHC.

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#### INTRODUCTION: THE SUDAN HEALTH CONSULTANCY GROUP

The Sudan Health Consultancy (SHC) group came together in 2006 to further organise the Sudanese Public Health Network UK that had been established in 2003. A voluntary group, we endeavour to assist colleagues and organisations in Sudan to share knowledge, skills and ideas between UK and Sudan.

Membership of the SHC is restricted to the core 10 members who lead the Sudanese Public Health Network in the UK, while the Network is open to all members with an interest in public health development in the Sudan. The group is registered in England as the Sudanese Public Health Consultancy Group incorporated on 03 March 2011, with the Company Number 07550140 (Limited).

#### **BACKGROUND**

Public health is at the heart of sustainable development. The wide array of the interwoven factors such as water and sanitation, food, air quality, transport, financial stability and working environments have a direct impact on health. A core function of public health is to ensure that health is considered in all public policy plans and developments. As a diaspora group with ties to Sudan and with collective knowledge and skills from years of involvement in UK's public health system, the SHC has been well placed to support public health practice and research in Sudan.

At the first Diaspora conference, we introduced the group and how we work and collaborate with our Sudanese partner individuals and organisations (Mohamad et al., 2009). The core group agrees on annual work programmes with Sudanese partners, and delivers activities in person through visits to Sudan or remotely via e-mail. By 2009, the group had assisted

the ministry with malaria surveillance via the use of statistical process control, carried out training on outbreak investigation, training on summary measures of population health and contributed to the development of palliative care in Sudan. The group had proposed a road map to develop maternal health services, contributed to the Peoples-Uni initiative and formed a potential base for assisting the South with addressing post war public health challenges.

We have since strived to strengthen our formal links with our partners in order to streamline our activities within our public health channels in the UK and within our partners' institutions in Sudan. Here, we provide an update on our progress in that direction, highlighting challenges and opportunities.

#### **APPROACH**

This paper follows on from the group contribution to the First Diaspora Conference 2009 on 'Making a Systematic Diaspora Contribution to Sudan'.

Since then, we have formalised our arrangements from an informal voluntary group into a registered company working with a network of networks. The network currently has in excess of 70 members. Some of our members have formed smaller networks themselves around either a project area or a shared interest.

We have established formal links to professional and academic institutions in Sudan, and signed Memoranda of Understanding, initially just with the Federal Ministry of Health (FMoH), and later in collaboration with the UK Academy of Medical Royal Colleges and the Faculty of Public Health.

#### **KEY PARTNERS IN SUDAN**

The FMoH and State ministries were the first partners of the group since 2003. Subsequently, the group developed work programmes to support training in Sudan Medical Specialisation Board (SMSB), the large universities and with the Public Health Institute (PHI) Sudan.

The SMSB is the professional body responsible for specialist medical training in Sudan. The board was established in 1995 after the expansion in undergraduate education to match the expansion needed for post-graduate education beyond the four oldest universities that had been offering post-graduate studies. In 1999, the first batch graduated and all the major universities joined the Board. The Board initially graduated Fellows and has been awarding Clinical MDs since 2004. More recently in 2014, the Board has opened up to multi-disciplinary training and non-medical specialisations.

The PHI was established in 2009 under the auspices of the FMoH. A multi-disciplinary institute with capacity building at the core of its mission, it aims to promote the creation of new knowledge and evidence-based interventions through health research, professional training and teaching programmes. The PHI is accredited to deliver Master programmes and Advanced modules for SMSB.

#### SHC MOU WITH SUDAN FMOH

SHC signed the Memorandum of Understanding (MoU) with FMoH in May 2007, and agreed on annual work programmes that have since continued (subsumed into the later formal MoUs with the UK). The initial work programme was mainly based on remote support through e-mail, for

example, contributing to the National Health Policy and strategy development, and delivering training workshops when members were on leave and visiting Sudan. The SHC members have continued to offer this remote support and face-to-face meetings and training workshops during their annual leave.

#### AOMRC MOU WITH SUDAN

The MoU between the FMoH, the Academy of Royal Colleges of the United Kingdom (AoMRC) and the British Sudanese Academy of Medical Specialties (BSAMS) was signed in October 2010. Signatories to the MoU were also the Sudan Medical Council, Sudan Medical Specialisation Board and the Sudan Doctors Union UK and Ireland. The intention was to strengthen bilateral and other MoUs and existing collaborations and open up new avenues of cooperation, particularly in the field of post-graduate training.

To operationalise this MoU, representatives from the UK visited Sudan between 22 and 28 October 2011. Action plans were drawn up to cover the actions needed between 2012 and 2015 for four specialties (Public Health, Emergency Medicine, Family Medicine, and Nursing and Midwifery). Members of the SHC group were key to that visit in liaison with the specialties in the UK and local liaison in the Sudan. Leadership of the PH action plan rests with the SHC and FPH, so there is one action plan for the FPH MoU with Sudan that feeds into the umbrella AoMRC MoU.

#### **FPH MoU WITH SUDAN**

The MoU between the Faculty of Public Health, the SHC group, Sudan FMoH and the PHI Sudan was signed on 6 July 2011. This was the culmination of over three years work by the SHC on behalf of the Faculty, and represents a significant portion of the MoU between the Academy of Medical Royal Colleges and the Sudan that was signed in October 2010.

The agreement covers the five years to 2016, with priorities around capacity building, strengthening public health research and strengthening public health practice. The Sudan FMoH is keen to strengthen public health as a speciality, raise standards, embark on multidisciplinary training for skill mix, as well as strengthen its core function in stewardship of the health system (and hence, FMoH sees the new PHI that was established in 2009 as a priority in this respect).

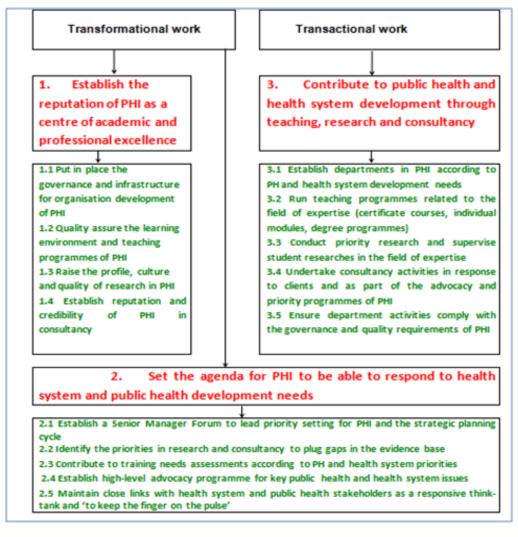
There is a process of annual review and updating of work plans, mainly supported by the SHC networking between Sudan and the Faculty. The MoU also covered South Sudan while it was part of Sudan. Subsequently, a separate MoU was signed with South Sudan.

#### HIGHLIGHTED ACHIEVEMENTS

Working opportunistically and through advocacy, members of SHC have supported delivery of the action plans in Sudan and delivered the UK contribution on behalf of the Faculty. One member of the group spent three years in a leadership role in Sudan, which contributed directly to the success of the work programmes, due to in-country liaison and leadership working. The other members of the group continued to support during their annual leave and through remote working.

#### SUPPORTING THE DEVELOPMENT OF THE PHI

The most notable achievement to date is the strategic and operational input into development of the national PHI, which delivers competency-based and multi-disciplinary public health training accredited with the Sudanese Medical Specialisation Board. A member of the SHC group spent three years in Sudan as Deputy Director to support and oversee the development of the Institute in teaching, research and consultancy. Other members of SHC continued to provide support with remote advice by e-mail and Skype and through visits to Sudan. Wider links with other diaspora colleagues, UK universities and overseas organisations were also drawn into the PHI. This support to the PHI formed one of the main pillars of the Faculty of Public Health MoU with Sudan.



Source: PHI (2012).

In supporting the research and consultancy functions of PHI, a number of strategic projects were completed, including the National Strategic Plan for Epidemiology and Zoonotic Diseases, the National Cancer Strategy and contribution into the Strategic Plan for the PHI itself.

Lessons from the UK were incorporated into the internal workings of the organisation; including for example, the establishment of the performance appraisal scheme that was essential to staff feedback and job satisfaction. These achievements by being part of the PHI meant that the FPH MoU and SHC support into the system was being delivered on a day by day basis; which would not have been possible through remote or adhoc support alone. The PHI in 2013 was ranked as one of the top performing universities in the Sudan despite its relatively young presence.

#### IMPROVING THE EVIDENCE BASE

The group also collaborated with the Non-Communicable Diseases directorate in improving data on injuries. The Burden of Injuries in Sudan project scoped out the various data sources for injuries, assessed them and triangulated data from suitable ones to arrive at estimates for incidence and mortality from injuries. Most importantly, it was an opportunity to uncover the various data gaps and articulate proposals to address them. One of the highlights of this project was the development of the short injury module for the national Sudan Household Health Survey (Federal Ministry of Health and Central Bureau of Statistics Sudan, 2012). The data from the module provided information on occurrence of injury, cause of injury, intent and type of health care received, improving our understanding of injury in Sudan (Abdalla, 2014; FMoH and CBoS, 2012) (Table 1).

Research training and further development of systematic literature review competencies was fostered for students of the PHI. A Global Fund programme of research in Human Resources for Health was completed successfully in those three years. Other research projects included Health Impact Assessment of petroleum refinery and research into mobile health.

Advocacy for mobile health as a potential solution for health system problems was taken up enthusiastically by the National Health Insurance fund. PHI researchers won the grant to undertake research on the feasibility of using mobile technologies to enroll the informal sector into health insurance (e.g. labourers and farmers). This has potential to impact the affordability of healthcare in rural and distal areas (National Health Insurance Fund, 2013).

#### SUPPORTING PROFESSIONAL COMPETENCY DEVELOPMENT

SHC was successful in transferring elements of the Faculty of Public Health's competency-based curriculum to the Sudanese Medical Specialisation Board, and amending the registrar training portfolio. The group's contribution was well received, with media interest and coverage.

One of the opportunities arose when Sudan Medical Council requested that all specialties firm up the CPD requirements for newly qualified specialists towards consultant registration. This meant that the Community Medicine speciality needed to come together around an agreed framework of CPD content. SHC contributed in developing the standards for Continuing Professional Development with the Community Medicine Association, FMoH and the Sudan Medical Council. The experience of the UK Faculty of Public Health in structured CPD was reviewed and the clinical CPD programme was amended to reflect public health competencies.

Cause of recent injury	Percentage of injured respondents in each category	Type of healthcare for most recent injury				Suffered disability as a
		None	Inpatient	Outpatient in hospital or other health facility	Traditional healer	result of recent Injury [1]
Road traffic accident	16.1	13.4	22.3	57.6	6.7	33.1
Poisoning	4.3	9.5	25.7	44.6	20.3	11.0
Fall	33.3	12.7	11.6	30.2	45.6	30.9
Mechanical (non- transport)	5.8	15.2	8.1	49.5	27.3	23.2
Near drowning	0.2	25.0	25.0	50.0		25.0
Fire/Hot substance (non-transport)	4.9	19.5	15.9	51.2	13.4	17.1
Animal bite/venom	18.2	18.4	5.9	21.1	54.6	6.8
Electric shock	0.8	42.9		21.4	35.7	35.7
Intentional self-harm	0.1		50.0	50.0		
Assault	7.0	12.3	22.8	48.2	16.7	25.8
Complication of medical or surgical care	3.4	7.1	62.5	25.0	5.4	41.4
Others	5.9	23.2	18.2	40.4	18.2	40.6
SUDAN (TOTAL) [1] SHHS indicator 9.2	100.0	14.9	15.7	37.4	32.0	25.4

This included leadership and management competencies, strategic planning, monitoring & evaluation, professionalism and ethics, and consultancy activities. It was suggested to accredit the advanced modules in public health for specialists. The CPD programme was adopted by SMC.

#### TRAINING ON LEADERSHIP SKILLS

We continue to deliver leadership training workshops and training the trainers for different specialties. Initially, these sessions were arranged *ad hoc*, hosted by the PHI or the Sudan Medical Specialisation Board. Subsequently, the sessions have become a compulsory module for registrars in Obstetrics and Gynaecology. The sessions cover a range of topics to enhance leadership and advocacy for maternal health and maternal mortality reductions. The standing course has been repeated for three consecutive years, delivered by two of our members. Other specialties have followed suit in requesting these sessions and a session for surgeons was undertaken this year.

#### **ADVOCACY**

We were well placed to advocate against female genital mutilation in response to political and professional controversy, and advocated for a unified front. Towards this end, we published

a consensus statement and a presentation at the Sudan Medical Association UK Conference 2009. The theory-of-change model pointed towards the role of female education and advocacy as the overwhelming balance of influence in challenging this practice. This is the trump card because there is no force opposing this.

# Media & Public Opinion, Political shift & the Law

Criminalize all FGM

Science-Proven Harm Religion - fatwa Criminal Law

Eliminate Harm
Girl's choice
Female Education/ Literacy
Female Advocacy/aspiration

Sunna FGM is an acceptable norm

Science – some Professionals Religion – Counter Fatwa Child act without section 13 on FGM Minimize Harm Culture

Source: Abdel Aziz (2009).

Forcefield analysis for shifts in media, public opinion and politics

Postcards from UK frequently appear in the Sudanese Public Health Journal (a peer reviewed journal). A list of publications is available on the group website, ranging from competency development for systematic literature reviews, social marketing, summary measures of population health to key topics like telehealth and the case for palliative and end-of-life care (Sudanese Health Consultancy,n.d).

#### CHALLENGES

A principal challenge is that of resources. Funding is critical for collaborating with partners in Sudan and with the limited resources there, funds are needed to pilot any proposed new approaches for tackling health problems in the community or sometimes to fund visits to Sudan by members of the group.

Other challenges include the high turnover in Ministry of Health staff; particularly the brain drain exodus that took place in 2014-2015 following the price increases, inflation and fuel crisis in the Sudan. This has made it difficult to sustain interest and engagement in the ongoing research and publications as staff dispersed and the remaining specialists had to cover broader portfolios than before.

#### **NEXT STEPS FOR SHC**

#### MoU action plans

Our next step is to complete the outstanding actions in the 2015/2016 action plan of the MoU with FPH. These mainly centre around supporting CPD and multi-disciplinary career pathways in Sudan, quality assurance and recognition of training, and setting up exchange placements for trainees between Sudan and UK.

When the MoUs come to an end, the work will continue in the form of annual workplans that draw expertise from within the group and the wider Faculty membership. There are currently over 70 members in the SPHNUK based in the UK, Sudan and other countries. The different interests and experiences within the group can be brought to bear on the core binding interest in public health in Sudan. We have initiated a peer support group and CPD initiative as one of the main themes going forwards to support each other in supporting Sudan.

#### Continuing work with the Faculty of Public Health

The FPH Global Strategy is under development and the experience from Sudan is one of the examples of good practice. In addition, the FPH launched the Special Interest groups, e-mail and web-based discussion groups to facilitate networking between individuals (in the UK and elsewhere for the exchange of ideas, knowledge and best practice in the public health). The SHC are looking to register the wider network SPHNUK as one of the FPH SIGs. This fits well with the development of Public Health Africa, as it is plausible for the SIGs to develop as a network of networks.

#### New areas of work

Having worked with the health sector for over a decade, the group recognises the need to work with other disciplines to harness the impact of the wider determinants of health – for example, microfinance, mobile technologies, environmental sustainability, women's development and other issues which require a multi-sectoral approach.

#### Sustaining the network of networks – the SPHNUK

The Sudanese Public Health Network was recently expanded to include over 70 members. The main emphasis is to support each other in supporting Sudan. Members have been matched up from Sudan, UK and other countries into a peer buddy scheme similar to that developed for the Faculty of Public Health overseas members. Buddies are expected to communicate via Skype at least once every two months; or more frequently by mutual arrangement for example, to set up personal development plans or to work through a critical issue.

A UK group of nine members have set up their own network for healthcare quality improvements and clinical governance in the Sudan. This group of second generation Diaspora joined the SPHNUK for mentoring and support. Having started in a similar fashion ourselves more than 10 years ago, our younger colleagues have similar potential to grow and deliver focused improvements into the future. As such, the peer support model and the network of networks is our way of sustaining the input of the next generation into the Sudan health system.

#### **REFERENCES**

- Abdalla, S. (2014) 'Sudan Household Health Survey 2010 national management team. Patterns of vulnerability to non-fatal injury: evidence from a national cross-sectional survey', Injury Prevention, Vol. 20, pp.310–316.
- Abdel Aziz, M. (2009) 'Changing policy for female genital mutilation and the case of change: a consensus statement', Sudanese Journal of Public Health, Vol. 4, No. 2, pp.236–241 (PDF), Available at: http://www.sjph.net. sd/files/vol4i2/SJPH-vol4i2-p236-241.pdf, Accessed on 27 April 2015.
- Federal Ministry of Health and Central Bureau of Statistics (2012) Sudan Household Health Survey Second Round Final Report, Khartoum.
- Mohamad, H., Abdelaziz, M., Awad, I., Joseph, V., ElKheir, R., Elhassan, M., AbuAffan, M., Abdalla, S., ElSafi, B. and Ellidir, M. (2009) Making a systematic diaspora contribution to Sudan: experience from the Sudan Health Consultancy group', in A.Ahmad (Ed). The Role of Diaspora in Technology Transfer and Achieving Sustainable Development in Sudan (Diaspora 2009 Conference Proceedings, 24–25January 2009, UK: WASD/SPRU University of Sussex, pp.13–24.
- National Health Insurance Fund (2013) NHIF Call for Proposals 2013. Study 3: Employing Mobile Technology for Enrolment of Informal Sector: Feasibility and Acceptability, Available at: http://www.peoplethatdeliver.org/sites/ peoplethatdeliver.org/files/418/files/CALL\_FOR\_PROPOSAL\_2013\_English.pdf, Accessed on 19 April 2015.
- Public Health Institute (2012) Strategic Plan 2012-2016 (PDF), Available at: http://www.phi.edu.sd/sites/default/ files/Strategic\_Plan\_Final%207%20May%202012.pdf. Accessed on 27 April 2015.
- Sudan Health Consultancy (n.d) SHC Publication list, Available at:https://sites.google.com/site/ sudanhealthconsultancy/publications, Accessed on 27 April 2015.

#### **BIOGRAPHICAL NOTES**

Muna I. Abdel Aziz is a medical doctor qualified from the University of Khartoum, and MD in Community Medicine. She subsequently trained in the UK with a Masters in Public Health from Nottingham and her PhD from Cambridge. She is a Fellow of the UK Faculty of Public Health, and is the International CPD Adviser for the Faculty. She is a Consultant in Public Health in Warrington Council, where she leads on health protection, governance and intelligence. Before joining Warrington, she spent three years in the Sudan as the Deputy Director of the Public Health Institute (2010–2013), where she contributed to establishment of the Institute and led a number of high profile collaborations, research and consultancies. She has an interest in mobile health, workforce and professional development, and systems leadership. She is a founding member and Secretary of the Sudan Health Consultancy group.

Safa I.A. Abdalla holds a primary degree in medicine and a medical doctorate in Community Medicine from the University of Khartoum. She is a Member by examination of the Faculty of Public Health Medicine of Ireland. She worked in public health research on burden of disease in Sudan, Travellers health in Ireland and the epidemiology of injury in Sudan. She also has teaching and mentoring experience in universities in Sudan and Ireland. Currently, she works in Stanford University in the USA. Her major interest is in improving the evidence base for public health interventions related to injuries and chronic diseases. She is also interested in improving disease and injury metrics in Sudan.

Mayada Abuaffan graduated from the Faculty of Medicine, University of Khartoum in 1989. She completed the MD training in Obstetrics and Gynaecology in 1995. She worked as a consultant Obstetrician and Gynaecologist in Sudan for two years before coming to the UK, where she worked in Obstetrics and Gynaecology for four years and obtained the membership of the Royal College of Obstetricians and Gynaecology. She completed the UK public health training and was added to the UK GMC Specialist Registrar in 2006. Currently, she works as a consultant in public health medicine in Dudley responsible for maternal and child health and sexual health.

Ishraga M.A. Awad studied Medicine at University of Khartoum and an MPH from Nottingham University. She is a Member of the UK Faculty of Public Health, and worked as a Consultant Regional Epidemiologist with the Health Protection Agency and Consultant in Public Health with Sandwell Primary Care Trust, UK. Currently, she is in General Practice Specialty Training for dual accreditation as a GP and in public health. A founding member of the Sudan Health Consultancy group, her special interest is in mainstreaming palliative care and to support the developing model for family medicine in Sudan.

**Moneim Elhassan** is Public Health Practitioner at Milton Keynes Council and Volunteer Tutor for Peoples Open Access Education Initiative, UK. He studied Medicine (MBBS) at the University of Khartoum, Master in Community Health from University of Liverpool and Master of Public Health from University of Nottingham. Examples of his previous public health service experience comes from work with the World Health Organization Essential Drugs programme in Sudan and as a Public Health Specialist Registrar in the UK. His current interest is in the use of social marketing techniques and health promotion through art and illustrations. He is a gifted artist and published cartoonist. His illustrations on the wider determinants of health are greatly enjoyed by SPHNUK readers and international audience. He is a founding member of the Sudan Health Consultancy group.

**Rida Y. Elkheir** studied Medicine at University of Khartoum. He completed public health training in the UK, and post-graduate studies in Public Health (Cambridge), Diabetes and Long Term Conditions (Sussex) and holds Memberships of the Faculty of Public Health and Faculty of Medical Leadership and Management and Certificate of Completion of Specialist Training. He is a Fellow of the UK Faculty of Public Health, is a Visiting Professor of Public Health, and Director of Public Health (IoW LA; Wessex) following working as Consultant and later as Clinical Director (NHS). He has a particular interest in long term conditions, behavioural economics, health economics, renewable energy for health and wellbeing and whole-systems integration of prevention and early intervention across Health and Well-being including wider determinants. He is active in public health training in the Wessex region, and active in developing training opportunities for colleagues from Sudan. He is a founding member of the Sudan Health Consultancy group.

**Maha Ellider** graduated from the Faculty of Medicine, University of Khartoum in 1992. She worked in Sudan for many years in the Omdurman Tropical Disease Hospital. In UK, she completed the Diploma of Tropical Medicine and Hygiene at Liverpool School of Tropical Medicine in 2002. Her interest is in communicable disease control, and she was attached for one year with the Health Protection Agency in Sheffield. She undertook the New Researchers Training Programme 2005/06 at Sheffield University, and has completed a Master of Public Health, Liverpool John Moores University in 2013. Currently, she lives in Kingdom of Saudi Arabia.

**Basma ElSafi** studied Medicine at the University of Bucharest, Romania. She is a Consultant in Acute Medicine in Kings College Hospital in London. She holds MBBS, MD (MRCP equivalent), and the Diploma of the Faculty of Family Planning (DFFP) Part 1. She worked in the UK in various disciplinesas a clinician including endocrinology, renal medicine, stroke/rehab, chest medicine, cardiology, oncology, haematology, care of the elderly and obstetrics and gynaecology. She previously workedin public health at SpR level, mainly in health promotion and project management.

**Victor Josephis** is a Consultant in Public Health at Doncaster Council. He is the Deputy Chair of Public Health Africa, Special Interest Group of the UK Faculty of Public Health; Chair of Africa-UK Telemedicine Working Group and a founding member of Sudan Health Consultancy. He has over 20 years public health experience in the UK, the past 10 years of these was at senior leadership role at Consultant level. He is a Fellow of the Faculty of Public Health of the Royal College of Physicians of the UK and Fellow of the Royal Society of Public Health (UK). He was a former founding Principal of Maridi School of Clinical Officers in South Sudan (1998). He attained a degree of Master of Public Health (MPH) from the University of Liverpool in 1994. He is a PhD candidate at the University of Leeds, investigating why and how new technology fail or succeed in routine healthcare practice.

**Huda H. Mohamed** studied Medicine at Ain Shams University, Cairo. She completed the Master in Community Medicine, University of Khartoum and UK Specialist Training in Public Health. She is a Fellow of the Faculty of Public Health, and has experience in medical education, leadership development, communicable disease control, prevention and surveillance. She is Director, regional advisor and regional training sponsor in Public Health England. She chairs the Sudan Health Consultancy group and is active in transferring knowledge to Sudan and the Middle East.