Medical Intervention: The Meditations of a Health Professional in the Diaspora.

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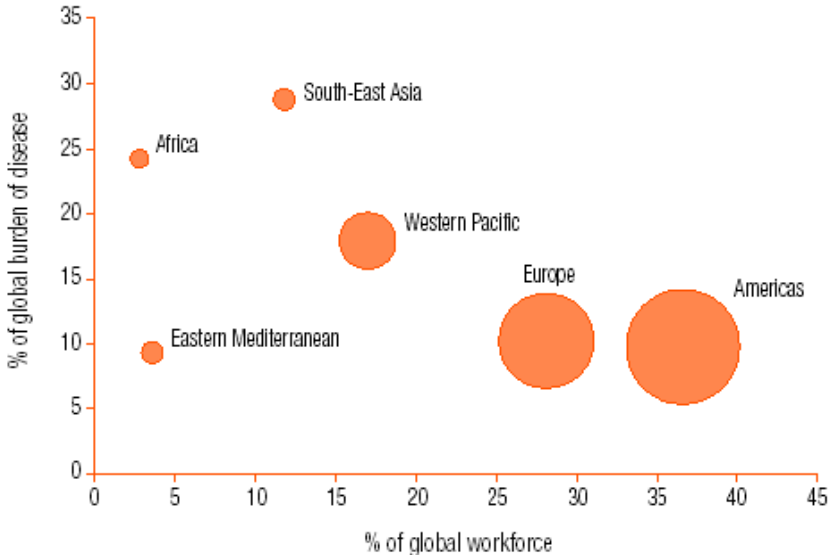
Intervention: The act of intervening, interfering or interceding with the intent of modifying the outcome. In medicine, an intervention is usually undertaken to help treat or cure a medical condition.

Health care involves health workers and support / logistics. Health workers are a diverse group of people or individuals whose main direct responsibility is to protect and improve the health of their communities. They are often engaged in actions whose primary intent is to enhance health. They embrace activities that are enshrined in a health system that propagates good health (**ref 1)**. Strictly speaking, parents looking after their children, people caring for their parents in adverse situations are health workers although these categories of people may be unpaid and are usually not officially classified as health workers. If an individual is employed by a company to nurse employees it is the action of the individual that makes him or her a health worker but not the employer.

	Total health workforce		Health service providers		Health management and support workers	
WHO region	Number	Density (per 1000 population)	Number	Percentage of total health workforce	Number	Percentage of total health workforce
Africa	1 640 000	2.3	1 360 000	83	280 000	17
Eastern Mediterranean	2 100 000	4.0	1 580 000	75	520 000	25
South-East Asia	7 040 000	4.3	4 730 000	67	2 300 000	33
Western Pacific	10 070 000	5.8	7 810 000	78	2 260 000	23
Europe	16 630 000	18.9	11 540 000	69	5 090 000	31
Americas	21 740 000	24.8	12 460 000	57	9 280 000	43
World	59 220 000	9.3	39 470 000	67	19 750 000	33

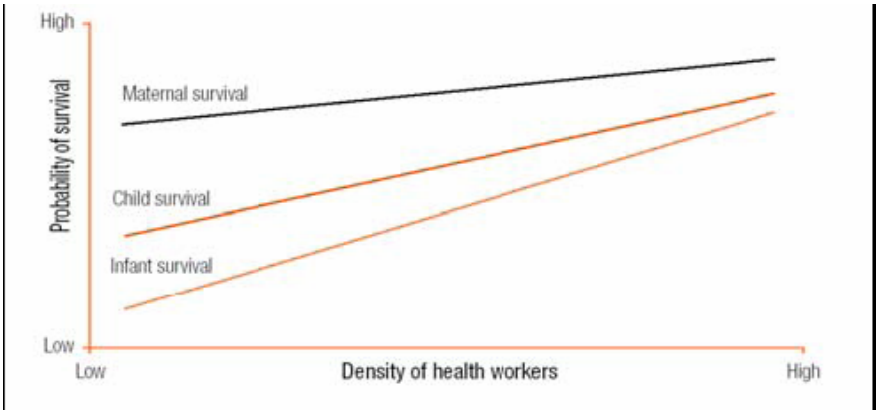
Source: Global Work Force by Density (WHO Report WHR 2006)
Figure 1 (Ref 1).

There are more than 59million health workers in the world, distributed unequally between and within countries as the above table shows.



Source: WHO Report (WHR)2006
Figure 2 Ref 1: Distribution of health workers by burden of Disease, by WHO region

Health Workers save lives Figure 2. WHO Report 2006(ref 1)



Source: WHR 2006 **Figure 3 Ref 1 & 2:** Relationship between the probability of Survival and density of the health workers: "HEALTH WORKERS SAVE LIVES"

The shortage of health workers in many places in the developing and under-developed world is among the most significant constraints to achieving the three health related Millennium Development Goals (MDGs): to reduce child mortality, improve maternal health and combat HIV/AIDS and other disease (ref 1). Expansion of the work force often requires a comprehensive sustainable plan. Extensive evidence shows that interventions that promote patient's roles in the prevention and management of disease can lead to improved outcomes (**Ref 1 & Fig3)**. Understanding the culture, traditional practices, religion, and economic activities of a people can be useful in developing appropriate treatment options.

This is not to suggest that medical intervention is without problems. Mistakes do happen with medical intervention. There is a wealth of information that unsafe patient

care is common in health care systems throughout the world both in rich and poor nations as caring involves a complex interplay of factors beyond the patient i.e. technology, medicines, devices, critical judgements based on knowledge, skill, and experience. Health workers who are educated and trained could work together to reduce risks of intervention. Even where human resources appear inadequate, effective teamwork can promote a safer healthcare. Effective communications and honesty with patients and relatives about the risks of health care especially when they go wrong are essential ingredients of satisfactory health care.

It has been said before that as Africans, we are not proud to say that if you are a health professional who wants a healthy symbiotic association, there are some things that black africa has in abundance: DISEASES. Infant pathoplogies, tropical diseases road traffic and farm accidents, HIV/AIDS and others.

Infant mortality and other mortality from other disease in Africa remains unacceptably high where figures are available (ref 3). A parent, usually the mother stays with a sick child in hospital/clinics/health care home facilities etc. until the child recovers or dies. This has a major impact on the family unit often the breadwinner is tied up looking after the sick, and utilising the families' scarce resources. The condition could become disabling or chronic leading to more losses to the nation and if preventable could have a major economic impact. The future generation deserves better facilities as they represent the future of the nation. Infant mortality will remain high until adults and not infants address the situation. Effective immunisation programmes, education, targeted projects with high yields and positive outcomes assisted by the diaspora, international, national, governmental and non-governmental organisations could assist in making a major impact in decreasing infant mortality rate. Where there is a will, there is a way.

Injuries and deaths from Road Traffic accidents is a global problem. Human resources to treat the injured vary according to the income of a nation. Injuries account for no less than five million deaths and over 100million disabilities every year (ref.2). Less formally trained tend to look after trauma patients in poorer countries. Data show a wide variation of about 50 surgeons per 100,00 population in North America and about 0.5 surgeons per 100.000 in most pars of Africa (ref 3). A review of trauma care in 11 hospitals along major roads in Ghana showed a humbling inadequacy of equipment (ref 3, 8 &19)) including basic materials like chest tubes. Contrary to the situation in the developed countries, there are no independent orthopaedic faculties in the main teaching hospitals in Ghana and most developing countries and orthopaedic trauma care is overshadowed by the apparent priorities of a general surgeon looking after allied surgery. In my opinion, this hinders innovation and the development of orthopaedic trauma care in the developing world.

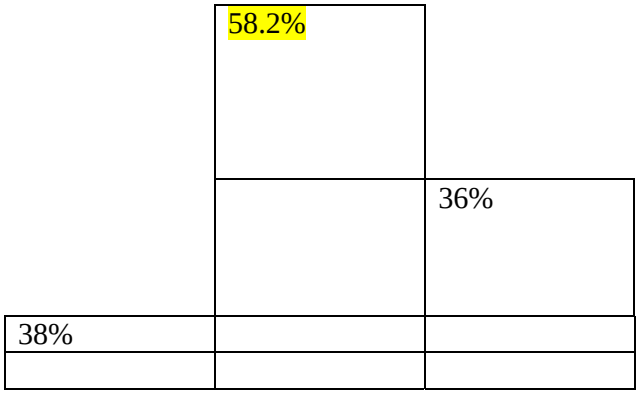
Injuries maim older children and working age adults who are largely breadwinners of their families leaving them with disabilities that put them out of jobs or remove them completely from any positive economic role by death. It is clear from studies that death from serious injuries varies according to the level of income of a state or a community in line with the density of trauma specialist. For example 35% mortality from a serious injury in the United States rises to about 70% in Ghana. About 80% of trauma deaths in our country, occur at the accident site, another 5% will die in the emergency room and more than 10% on admission. Some of these injuries that are

complicated by death, although life threatening, are potentially survivable (ref 6). The irony of it all is that a significant number of the injured initially sustain non-life threatening injuries that would progress to death that could have been prevented by basic treatment using the minimum of facilities. In Ghana, lack of trained personnel, the helpless situation of the few trained personnel who may know what needs to be done but cannot practically implement, absence of pre-hospital medical care and appropriate transport, poor public knowledge about the merits of early medical treatment, lack of facilities, absence of a sustainable programme of education, logistics, and rehabilitation (ref 6 &10).

It is true that beyond basic first aid measures, specific trauma care measures that could help return the injured back on level economic grounds to compete with others may involve expensive implants and technology. Also in a country where infant mortality, malnutrition, malaria birth related maternal deaths are prevalent, and are preventable and treatable conditions of course, it is very easy for the central government to concentrate its efforts on the obvious - minimise the un-necessary deaths by direct action in the areas that appear to be financially containable. Somehow, management of the injured directly or indirectly remains part of the cycle of death. People in the productive age are removed leaving families at increased vulnerability to the death row conditions due to inadequate financial resources. This by implication would suggest that an investment by a nation in trauma care could save lives, provide support for families, boost productivity and the wealth of the nation. It is in this light that the World Health Organisation launched the Essential Trauma Care (EsTC) project in 2004 in Vienna to ensure that the minimum of care is available and affordable to the injured anywhere in the world.

To achieve the objectives of the World Health Organisation (WHO), many nations like Ghana have to review the infrastructure available, draw a comprehensive and sustainable programme to make things happen well. It has been observed by eminent Ghanaian health professionals already working in the country that among the first people to arrive at the scene of road traffic accident is a professional driver (ref 6) who will also attempt to manage the injured at the sight of accident through fright and personal believes about resuscitation. They are also the ones who transport the dying, the dead and the walking wounded into hospitals. It is also true that first contacts in the hospitals are usually nurses, and that doctors get called in latter, a complete reversal of fortune as compared with the developed world where the trained para-medics arrive at the scene of accident within minutes, begin to effect care in an orderly fashion, transport patient in an ambulance where resuscitation continues into hospital with both doctors and nurses waiting in the emergency room after an air call message about the details of the expected injuries.

Road Safety prevention steps, the minimum of Trauma Care for injuries from accidents e.g. road traffic accidents resulting in serious limb injuries could save lives and decrease the impact of trauma to the nation's economic well being. Ghana's current population is about 22million..In 2005, the total work force was about 10.62million about 60% of which were agricultural, 15% services about 25% unemployed. Population growth is about 1.97%, ranked 68th by WHO. 2005 figures showed Death rates of about 9.55/100,0000population, Infants, 53.56 deaths/100,000population.and average life span 57years.



Age **0-14** years Age **15-64** years Age **over 65years**

Figure 4 Age Demography. Ghana 2005. Life expectancy 57years **Ref 5 & 6**

As usually high productive members of the communities need medical treatment following trauma, Orthopaedic facilities and implants are often regularly unavailable for effective treatment in Ghana and elsewhere in the developing and undeveloped countries. Few days in hospital after appropriate and effective treatment often not available is often turned into several months in hospital beds. These patients often get sub-standard treatment e.g. operations such as Girdlestone(surgical removal of hip joint ball) which though relieves pain but is disabling to the patient who was once active and productive **(ref 7)** and some deaths occur from minor injuries (**ref 4).** Relatives cloud around these patients to provide the support that they can rally, taken a multitude of family members who have to regularly punctuate their regular economic activities with several weeks of break. The calls for help is often heard far away in Europe, America and elsewhere by phone calls most of which are characteristically described in Ghana as "FLASH". – I want you to call me back because I have no money for units and you are abroad.

The loss at the family unit, local and national is worth targeting because of its major socio-economic impact to the nation. For example, if possible surgical implant manufacturing based locally and developed for the local needs, this could transform the management of these patients and will decrease the overall socio-economic burden to the nation since majority of these could be restored to active productive life. Other areas applicable –

- Obstetrics & Gynaecology Units (with above arguments).
- General Surgery (Inguinal hernia left to become huge and incapacitating)
- Back pain (physiotherapists and with facilities needed).
- Clean running pipe borne water.
- Uninterrupted electricity supply for storage of medicine, vaccines etc.
- Government willingness to remove all stumbling blocks from the diaspora and friends, whilst encouraging them to contribute in a co-ordinated manner to the overall healthcare delivery of the nation. This will have a major socio-economic impact rather than their individual altruistic healthcare assistance to their immediate relatives following 'flash telephone calls'.

In terms of human losses and financial cost to the nation to both preventable and treatable medical conditions this must be virtually incalculable. It is second only to the ravages of trans-atlantic slave trade of yester-years. The seriousness of this tragic human waste through medical neglect merits urgent consideration if we are to compete globally in the twenty-first century. We do not need to re-invent the wheel; we should learn from other nations and adapt our health care delivery to suit our specific needs.

MIGRATION OF HEATH WORKFORCE

Brain drain was coined by a spokesman for the Royal Society of London to describe the outflow of scientists and technologists to Canada and the United States in the early 1950s.It is an emigration of trained and talented individuals ("human capital") to other nations or jurisdictions due to conflicts, lack of opportunity, or other reasons. Some describe it as "capital flight". It can occur when individuals who study abroad fail to return to their home nation or when individuals who are educated in their home country emigrate for higher wages or better opportunities **(ref 9).**

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Migration of health workers has two faces like a coin. Often, migration of work force is mitigated by a multitude of factors: desire to achieve the ultimate professional aspiration, prolonged and unachievable professional satisfaction often coupled with economic depression. Sadly the migration leaves behind a relatively poor ratio of health worker per population and invariably increased burden of healthcare on those holding the fort. In situations where large numbers of nurses and doctors leave a huge financial investment by a nation is lost to the wealthier nations. However, there could be redeeming effects. Millions of dollars are generated through remittances back home that have been noted to be associated with a decline in poverty in low income countries **(ref 9).**

Today, brain drain does not affect poor nations alone. The expansion of the European Union has seen a rapid drift of talents from the former East to West creating difficult almost impossible situations for training opportunities for people from other poorer countries from outside the Union to emigrate. Perhaps this marks a shift for black Africa to enjoy a reversal of the drain. The implication is that the training that would otherwise be acquired abroad will have to be brought home by our countrymen and women and of course their friends to Ghana.

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TURNING BRAIN DRAIN INTO BRAIN GAIN

If health workers return, they bring significant skills and expertise back to the home country. There is often an extra advantage that such health workers bring: ability to weigh the needs of the people, identify areas that need improving in the system with reasonable consideration of the culture, tradition and socio-economic factors of the country. This will often help with the approach to medical care of the people as opposed to a prescription for the people disregarding the importance of real identity of a people and their rights to progress as a nation

People and governments can take measures to draw its migrant's home after a period of service abroad. A friend once said 'we export some of our best products abroad and we can persevere to get them back even better'. Inadequate health care can affect anyone directly or indirectly. Sending monies from abroad to support family members health care is a common practice but this often come in late or still insufficient to obtain the desired care, as some family members turn in different directions with the

resources generated from abroad for treatment and attend the hospital as one of the final stop over. Migrant health workers also feel the pinch of the effects of the level of healthcare and individuals have their own tales to tell that should provide motivation to return home and help. Some privileges granted to the returnee migrants may prove attractive to change the imbalance in favour of a nation. It may however appear unfair to the hard working patriot who decided to give their services to his/her home country for various reasons. For the professional in the Diaspora, if sufficient steps are taken to improve targeted health institutions through working visits on part time basis, familiarisation with the challenges on the ground, with added governmental incentives, more brains will be gained that could work effectively provide further improvements and diversity in our healthcare.

What could a nation like Ghana do, and which Role for the Health Professional in the Diaspora?

1. There is an already established training of Medical Assistants in Ghana supporting medical work and doctors. Training of Trauma Assistants to carry out basic trauma Care including training in ABCD life saving drills manipulation of fractures, splinting, traction and running fracture consultations in a similar fashion to the Cuban Health revolution could help provide sufficient basic trauma care. Government and International support for such a scheme will be essential as well as the willpower of the people of Ghana.
2. As part of basic life support of the injured on the scene, Governmental support for the call to draft professional drivers into first aid Brigade through training in either existing but expanded training facilities. St Johns Ambulance could be a useful training ally.
3. Establishment of a National Trauma and Orthopaedic Centre of Excellence that can focus on national needs, provide training to all grades of health workers in Orthopaedics Trauma Care. Trained personnel from such centre could go to the districts to practice that would reduce the burden on the teaching hospitals that have medical and nursing students to contend with. Health professional in the Diaspora could support in such a national treasure if properly co-ordinated.
4. It is long overdue for full faculties of orthopaedic trauma to be established in the countries main teaching hospitals in order to encourage the development of the specialty.
5. The wealth of experience acquired by the Health Professional in the Diaspora can be tapped in many ways. The WHO has given recognition to the fact that strategies to improve performance of the health work force must initially focus on existing staff because of the time lag in training new health workers. Working visits by such professionals who may understand their own people and make available innovations that may work better in their motherland in various faculties of the health system could help improve work ethic, direct change for improvement in a language that identifies them with the future of Ghana. Clinical Support for centres of excellence could be through a collaboration between the Medical Boards of the centres that may be established or identified, and well organised bodies of Health Professionals in the Diaspora with the local experts. There is an urgent call for specialist professionals like orthopaedic trauma surgeons both in Ghana and the Diaspora to unite behind a drive to improve services in the medical institutions
6. Trauma care in Ghana and most black African nations is long overdue. Basic life support equipment are usually not expensive but the provision of

orthopaedic trauma care that could help patients return to work early, provide a concentration of efforts to train personnel and treat large numbers of patients effectively will require an investment in human resources, the establishment of supply chain and sustainable logistics that would require financial co-operation between stake holders, the government, the private sector and international organisations and companies. Some benevolent Orthopaedic Trauma manufacturing companies in the British Isles and elsewhere should be encouraged to support the supply chain through the provision of discounted / affordable implants to the orthopaedic institutions in Ghana could be an added incentive and my preliminary assessment suggests an excellent number of Companies ready to support such projects. Orthopaedic trauma manufacturing industry, basic life support equipment production, rehabilitation centres to support the centres need to be encouraged through private and government investment At best, manufacturing industries based in Ghana could be encouraged which will in addition to supplying implants could provide job opportunities.

7. To make orthopaedic institutions work well, it will be necessary to develop a national health insurance system that can support the financial demands involved in running such skilled centre or centres.
8. When the clinical support system has improved in most fronts then only will transport system into hospital make any effective impact on survivability of the injured and change the pattern of the few ambulances transporting corpse from accident sites into hospital and from hospitals into the graveyards
9. For un-interrupted power supply to our health institutions that store blood and blood products, vital medicines especially vaccines, and the importance of maintaining regular power to keep equipment in good working order, solar panels for energy could be considered.
10. These days, you hardly get help from other economies completely free of charge. There is almost always a look into your resources and 'a give and take attitude'. Only the nation can give and give to its people with the help our benevolent friends. Ghana must strive for the best for its people relentlessly. Our people, home and abroad should unite to transform our health service.

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