Linking Rural Communities with Health Services:
Guidelines for National Ambulance Service in the African context

**Project Location:** West Africa-Ghana/Nigeria (Katsina State)

**Project Start Date:** June 2011

**Project Duration:** 18 months

**Introduction:**
AFCAP commissioned Transaid and its partners, in June 2011, to undertake an 18-month research project in a West African setting where investments had been made in ambulance provision. The project was also commissioned to develop the knowledge and capacity across the region in the sustainable management of ambulance provision and develop appropriate guidelines to support that. This case study focuses on the development of the Ambulance Guidelines.

Emergency patient care is a system constructed of many components. This system needs to be approached and addressed in a holistic manner. While keeping this interdependency in mind during design and implementation, each component of emergency care needs to be addressed. The Ambulance Guidelines focus on the component of a National Ambulance Service (NAS) within the larger picture of emergency care.

The set up and effective management of the transport aspects of a National Ambulance Service (NAS) is the main focus of the guide but it also touches on other elements of the National Ambulance Service as a whole and the links and stakeholders which will help ensure a National Ambulance Service’s success within an emergency care system.

**Methodology:**
The Guidelines for a National Ambulance Service in an African context were developed in conjunction with experts from a variety of different backgrounds. The guidelines were also informed by the research conducted as part of the ‘Linking Rural Communities with Health Services: Assessing the Effectiveness of the Ambulance Services in Meeting the Needs of Rural Communities in West Africa’ project. Please see the case study or final report for further detail about the research conducted.

Below is a list of the main components that make up the Ambulance Guidelines:

- **NAS Operational Options**
  - When considering establishing a National Ambulance Service there are three main options to be considered, the feasibility of which should be assessed according to each individual context:
    - Option 1: Government owned and operated
    - Option 2: Third party operated
    - Option 3: Combined government and third party operated
  - Epidemiological mapping
    - In order to begin to solve the problem of urgent care you must first know what the problem is, where the problem is and the extent of the problem. Mapping must occur in the very early stages of the design phase, before any service implementation begins.
  - Transport Management System
    - Transport within a National Ambulance Service must be managed effectively and efficiently as without transport a NAS cannot operate. A Transport Management System (TMS) will enable the proper management of a transport fleet and thus extend its working life, reduce the overall cost and improve emergency service delivery. Please see Transaid’s Transport Management System manual online for further detail.
  - Components and Considerations
    - Stakeholders
    - Funding & Insurance
    - Management Structure
    - Crew and Driver
    - Training
    - Staffing
    - Medical equipment including drugs
    - Health and Care
    - Call Centre, Communication & IT
    - Operational Structure
    - Testing
    - Legal Considerations
    - Outsourcing
  - Vehicles

**Outcomes:**
To support the capacity development and knowledge management within ambulance provision across sub-Saharan Africa, the development of guidelines was a complementary and key component of the project.

There are many examples of operational NAS, of various types. NAS around the world exist in varying operational set-ups. Two examples set out in the guidelines of NAS that have been set up that relate to the African context are:

**Ghana:**
Ghana has established an entirely public sector NAS and it has been in operation for a number of years. It is still expanding and...
introducing new vehicles. The Ghana NAS has utilised external expertise, such as medical training, in its progression as NAS.

South Africa:
Emergency services in South Africa are a public/private system. Each province provides emergency ambulance services. The government system utilises volunteers as well as paid responders and is supplemented by private-for-profit ambulance companies. Both of these services are further supplemented by voluntary ambulance services such as the South African Red Cross and St. John Ambulance. All of the services are required by law to meet the same standards with respect to staff qualifications.

After the guidelines had been finalised they were disseminated through the AFCAP and Transaid professional networks. They are also contributing towards implementation action in Uganda where international best practice is being incorporated into proposals to develop a National Ambulance Service.

Conclusions:
Adaptation and localisation are key to overcoming the complexity of establishing a National Ambulance Service. This is due to specific needs; legal, medical and governmental, all of which differ in each country. Even within a country the ambulance service will vary.

It would not be to any country’s benefit to attempt to exactly duplicate another country’s NAS. However, it is recommended that experiences and lessons learned from other National Ambulance Services should be reviewed by those planning on establishing or hoping to improve their own NAS. Taking this into account can help in eliminating or solidifying options and decisions by determining what worked and what did not and more importantly, why.

Although the guide discusses many complex components looking to the future of a nation’s health care system, the part that an effective National Ambulance Service plays is vital and must be taken as seriously and with the dedication it deserves and warrants.

As with the implementation of many complex activities it is advisable to start with a smaller pilot first. This constitutes a testing phase and enables the correction of any errors to find out what works, and what needs improvement. Even if a template from a country of similar geographical, economic and political makeup is used, there are always local variations that should be explored and tested before implementation takes place on a nationwide scale. It is advised that a large, relatively highly populated city (in relation to the country of operation) is chosen as the first test site. This may or may not be the capital city. If funding and resources allow, a secondary test site in a rural area may also be chosen to make simultaneous comparisons with the urban site.

Once operations become more fluid and the issues that arise during the pilot phase are addressed, extending to other cities and rural areas can commence in a carefully structured manner. Funding and resources will play a major role in the expansion of a National Ambulance Service so a phased approach is advised to ensure consistency and that there is no reduction in the quality of patient care. A National Ambulance Service must be embraced and accepted by the country’s population and a poor quality service will not instil confidence in its beneficiaries.

Health systems throughout the world often face resource constraints, be it a shortage of funding or insufficient human resources. The introduction of a NAS should not add to this problem. Although a NAS should attract, and be able to keep skilled, dedicated staff, it should not be at the expense of other parts of the health care system. For example, if NAS staff receive higher quality training and earn higher wages than nurses in a hospital, it will not only ignite an exodus of nursing staff to the NAS but could also cause those thinking of a nursing career to reconsider. This scenario could compound the issue of understaffed hospitals and health facilities and so cause more harm to the health care system than good. A NAS is only a component of a nation’s health care system and the hospitals the patients are being brought to must be of adequate quality to continue care.

Tools Utilised: Research protocol, Glasgow Coma assessment, Vital signs assessment, referral forms, St Johns Ambulance Uganda docs, websites about ambulance design, set-up and management, UK ambulance practitioners, Ghana AFCAP workshop, Transaid TMS manual

Partners: Ghana Health Services, Ghana National Ambulance Service and Katsina MoH

About Transaid:
Transaid is an international UK development charity that aims to reduce poverty and improve livelihoods across Africa and the developing world through creating better transport. Transaid was founded by Save the Children and the Chartered Institute of Logistics and Transport. Our Patron is HRH The Princess Royal. Transaid specializes in the following:

- Building the capacity of public health authorities to provide effective, safe and cost efficient transport management systems to promote equitable access to primary health care services.
- Developing and improving logistics and supply chain systems to enhance the delivery of medicines, equipment and relief services to vulnerable communities.
- Promoting effective partnerships to support and enhance community participation in developing sustainable transport solutions in rural areas.
- Developing and delivering transport and logistics training and qualifications for public and private sector operators.

Transaid has the capacity and reach to lead projects throughout the developing world, but is equally capable of providing niche technical assistance to large scale health systems strengthening projects. Transaid maintains strong relationships with a number of leading international organizations including donor agencies such as DFID, DANIDA and USAID, and implementing organizations such as Health Partners International, Options Consulting, John Snow Inc. and Management Sciences for Health.

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