



INSTITUTE OF STATISTICAL, SOCIAL AND ECONOMIC RESEARCH (ISSER)

College of Humanities, University of Ghana

Vol. 4

SEPTEMBER 2020

POLICY BRIEF

Emergency Medical Care in Ghana: A Focus on the National Ambulance Service, Support Systems and Beds in Healthcare Institutions

INTRODUCTION

A healthy population is one of the most essential prerequisites for national development. In order to attain its dreams of economic and social progress, every country needs to ensure the sound health of its citizens (Lagomarsino, 2012). An unhealthy population can derail national development by necessitating the reallocation of resources initially intended for other sectors to curative healthcare. This makes the health service one of the most important sectors of any country. In particular, emergency healthcare is a central pillar of any healthcare system (Lozano, Naghavi, Foreman, et al., 2012; Stewart, Khanduri, McCord, et al., 2014; Japiong, Asiamah, Owusu-Dabo et al., 2015).

In this regard, the current state of Ghana's emergency medical services is still a matter of serious developmental and public health concern. This brief focuses on two aspects of Ghana's emergency medical system, that is, pre-hospital scene response emergency medical care and healthcare facility based support for the former. Specifically, it highlights Ghana's National Ambulance Service (NAS) and local health facilities, and how they work together to ensure timely and appropriate health facility-based medical emergency response and care, as well as the appropriateness of transfers of medical emergencies. The NAS has recently received fleet and personnel revamping. Yet issues relating to environmental and logistical support, hospitals' response mechanisms (Norman, Aikins, Binka, et al., 2012; Afari, Hirschhorn, Michael, et al., 2014), and community members' knowledge, attitudes and beliefs pose challenges to the NAS' efficient, timely and

effective operation (Adamtey, Frimpong & Dinye, 2015). The same applies to their compromised ability to pay for the services of the NAS (Adamtey, Frimpong & Dinye, 2015).

KEY ISSUES

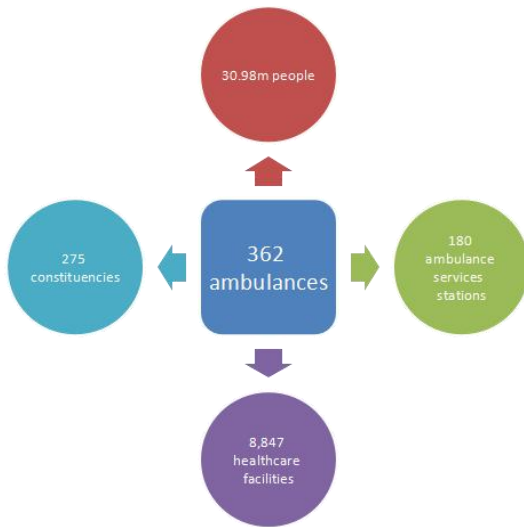
The National Ambulance Service and its support systems

Ghana's National Ambulance Service (NAS) is the premier and only true pre-hospital emergency medical response system in the country (Mould-Millman, Oteng, Zakariah et al., 2015). The NAS began piloting in 2004 and became fully operational in 2006 (Zakariah, et al., 2017), as the first known organized, national, public response system to medical emergencies in Ghana. The ambulance service in Ghana saw a significant improvement in January 2020 with the acquisition of new ambulances and staff. With an estimated population of 30,984,320 people (United Nations, 2020), 275 constituencies, and 8,847 healthcare facilities (Ghana Health Service, 2019), the country currently has 362 functioning ambulances, and 180 ambulance service stations (Figure 1). Recruitment, training and resourcing of additional Emergency Medical Technicians (EMTs), as well as allied administrative and maintenance staff, has also taken place to augment the operations of the NAS.

Ordinarily, this is an excellent improvement, an upsurge from only 55 functioning ambulances and only a handful of EMTs (ISSER, 2019; Daily Guide Network/Ghanaweb, January,

2020). This constitutes nearly a seven-fold increase in the fleet of functioning national ambulances. Worthy of mention, is the Government's introduction of drone services to boost emergency medical care, thus contributing to timely, reliable and secure delivery of some essential healthcare products to health facilities, medical emergency scenes, and hard-to-reach areas, and consequently reducing waste, improving the supply chain of critical medical supplies, and generally improving/saving lives (ISSER, 2019).

Figure 1: Ambulance service coverage in Ghana, May 2020



Sources: ISSER, 2019; Ghana Health Service, 2019, p. 18¹; Daily Guide Network/Ghanaweb, January, 2020; United Nations, 2020

A current drawback, however, is the lack of adequate support facilities for the smooth operation of the greatly boosted emergency medical services in Ghana. These pertain to the structural bottlenecks and poor rapid responses in other units of Ghana's health sector. First is the poor state of roads in many parts of the country which impedes smooth access to emergency scenes. This is particularly a source of concern given the remoteness of a fair number of communities from healthcare facilities which have the means to attend to emergency cases. Poor roads also pose threats to stable patient management, timely scene response, and the longevity of the ambulances. Relatedly, the likelihood that ambulances would be subjected to the poor maintenance culture that characterizes most public assets in Ghana is a potential threat to their longevity, with implications for the public purse.

Second, despite the recent community street naming and digital address system in most parts of Ghana, it is not clear that citizens readily know, and/or remember their post-code, and know/remember the appropriate numbers to call during pre-hospital emergency. Adamtey et al. (2015) hinted at the

¹ Number of healthcare facilities stated is as of the end of 2018, and include 5,868 Community-based Health Planning and Services (CHPS) compounds, government, quasi-government, and private healthcare facilities, including 12 mine hospitals.

need for public education on the ambulance and emergency medical services in Ghana.

Third, there is poor geographical/physical lay-out in most communities in Ghana, particularly in urban slums and newly developing residential areas, which can impede access of ambulances to most emergency scenes.

Fourth, despite the massive penetration of cell phone services in Ghana, not everyone has access to phones. Moreover, the rather unstable telephone network of local telecommunication companies affects citizens' ability to make prompt calls for emergency medical care. Relatedly, there is a known high amount of hoax calls to emergency centres in Ghana (police, ambulance, fire service, and even to COVID-19 call centres). This diverts attention from efficient, timely, and effective emergency medical ambulance service response in genuine cases.

As previous literature illustrates, there's poor perception of emergency medical ambulance services among some Ghanaians, specifically the negative perception that ambulances are for carrying dead bodies (Adamtey et al., 2015). Also, citizens often lack knowledge on simple emergency techniques and proper care of persons needing emergency medical care while at home or at emergency scenes, and/or before the arrival of emergency technical teams. Further, it is on record that the demand for payment before patients are transported by ambulances, patients' potential inability to pay such charges, and other operational issues of the NAS, such as the high cost of fuel (Adamtey et al., 2015), impede the smooth provision of pre-hospital emergency medical services.

Finally, the elements required for an effective linkage between the NAS and other aspects of mainstream healthcare services are not adequately in place currently. The recent 'no bed syndrome' in Ghana underscores this point.

Health-facility based response to emergency medical services: the 'no-bed syndrome'

Previous researchers have highlighted the inadequacies of Ghana's hospital system in responding to medical emergencies. This constitutes a serious public health concern (Norman, Aikins, Binka, et al., 2012; Afari, Hirschhorn, Michael, et al., 2014). The purported limited availability of hospital beds has also generated widespread public outrage in recent times. The situation, popularly referred to as the "no-bed syndrome" has resulted in a few highly publicised deaths where patients in crises were turned away from some health facilities even without first aid due to a supposed lack of beds.

However, a probe into one of these incidents revealed that some of the hospitals which turned the patient away actually had empty beds, suggesting that claims of acute shortage of beds are not always accurate (Ghanaweb, June 2019). This confirms ISSER's conclusion, based on a per capita assessment of hospital beds in Ghana, that there is no evidence-based support of the "no-bed syndrome" in the country (ISSER, 2019). ISSER (2019) further asserts that the

“no-bed syndrome” is a result of lack of proper direction in Ghana’s healthcare system, rather than the absence of beds for emergency admission.

To address these problems, the Government and some public health facilities have taken remedial measures. For instance, in September 2019, Korle-Bu Teaching Hospital acquired 200 beds in order to avert instances where patients would be denied medical care on account of unavailability of beds (Daily Graphic Online, September, 2019). In addition, the then Director General of the Ghana Health Service, Dr. Anthony Nsiah-Asare, directed that henceforth, no patient should be denied medical care for lack of beds (Ghanaweb, September, 2019). Also, the Government introduced the use of drones to ensure secure, reliable and timely delivery of some essential healthcare products to hospitals and other health facilities, as well as hard-to-reach areas and accident scenes (Ghanaweb, 24 April, 2018; ISSER 2019).

Finally, at the 2018 Annual Health Summit of the Ghana Health Service held in April 2018, the Vice President of the Republic of Ghana disclosed that the Government was in the process of procuring 275 ambulances to enable every constituency in the country to have an ambulance, as a measure to boost the effectiveness of the National Ambulance Service (Citinewsroom/Ghanaweb, April 2018; Ghana News Agency [GNA], November, 2018). This promise was again reiterated at the Annual General Conference of the Ghana Medical Association in Koforidua in November 2018 (GNA, November, 2018). As at mid-2019, only 55 ambulances in the NAS fleet were in circulation (ISSER, 2019). This constituted an important dint on healthcare and a breach of public health safety in Ghana. For instance, in October 2019, two women in two different regions (Adawso in the Eastern Region and Dambai in the Oti Region) were forced to deliver their babies on the streets. One of them was being transported on a motorbike to the hospital when she went into labour (Myjoyonline, October, 2019). [<https://www.myjoyonline.com/news/2019/October-2nd/woman-gives-birth-in-the-middle-of-dambai-road.php>; <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Nurses-deliver-women-in-labour-on-streets-785809>]

This meant that emergency healthcare delivery in the country was still in a state of crisis. Thus, the arrival of all 307 ambulances in January 2020, was a welcome intervention to emergency healthcare in Ghana. Importantly, however, one ambulance per constituency, as has been distributed (Daily Guide Network/Ghanaweb, January, 2020), is simply inadequate to meet the emergency healthcare needs of the Ghanaian populace.

CONCLUSION AND RECOMMENDATIONS

Emergency medical care is an essential component of health systems (Lozano et al., 2012; Stewart et al., 2014). Despite the recent provision of additional logistical support to boost Ghana’s NAS, the country’s emergency medical care system remains woefully inadequate to meet the needs of the public. It

is also fraught with a lot of constraints particularly pertaining to the NAS and its community and health facility-based support systems, which still raise great public health concerns. ISSER recommends that:

- The Government of Ghana and other stakeholders such as the Ministry of Health (MoH) and its agencies critically review current facilities and practices and set up a more responsive healthcare emergency preparedness system.
- The MoH and its agencies make it mandatory for healthcare workers to attend to emergency cases that come to their doorstep by receiving and stabilising patients, and making appropriate and urgent referrals, if they cannot accommodate them. Staff who become negligent in such instances should be given appropriate punishment to serve as a deterrent.
- The Ghana Health Service should conduct an urgent audit of all beds in public and quasi-government institutions. An electronic management information system on bed availability, including a feedback loop, should be instituted on daily basis throughout all public and quasi-government health facilities.
- The MoH and its agencies should urgently work on setting up a more functional and coordinated emergency response system. This must include setting up, implementing and supervising proper referral, communication, management, and feedback systems for emergency medical situations in Ghana. An electronic alert and electronic tracker emergency system should be developed, implemented and monitored.
- The procured fleet of ambulances should be kept in excellent condition, with routine maintenance.
- Ideally, each health facility at the sub-district level and above should have a functioning ambulance.
- Public awareness of and education on the NAS and emergency medical services in general (Adamtey et al., 2015; Zakariah, et al., 2017) should be improved.
- Reliable revenue, public access, community integration (Mould-Millman et al., 2015; Zakariah, et al., 2017) should be put in place by the NAS.
- A comprehensive, evidence-based national assessment should be undertaken to better understand and proffer solutions for an improved NAS, pre-emergency and emergency preparedness, and hospital system response to emergencies (Norman et al., 2012). Also, linkages and appropriate feedback mechanism should be established between all these systems (Afari, Hirschhorn, Michael, et al., 2014).
- Environmental, geographical, telecommunication, and community integration and access issues should be improved to further improve scene response (Mould-Millman et al., 2015).
- Given the general poor state of some of Ghana’s roads, in instances of long distances from a targeted emergency referral healthcare facility, such as from the regions to Korle-Bu or Komfo Anokye Teaching Hospitals, air ambulance service should be provided as an option, based on one’s ability to pay (personal or through insurance).

REFERENCES

- Adamtey, R., Frimpong, J. & Dinye, D., R. (2015). An Analysis of Emergency Healthcare Delivery in Ghana: Lessons from Ambulance and Emergency Services in Bibiani Anhwiaso Bekwai District. Ghana Journal of Development Studies, 12(1). Available at: <http://udsspace.uds.edu.gh/bitstream/123456789/539/1/AN%20ANALYSIS%20OF%20EMERGENCY%20HEALTH%20CARE%20DELIVERY%20IN%20GHANA%20LESSONS%20FROM%20AMBULANCE%20AND%20EMERGENCY%20SERVICES%20IN%20BIBIANI%20ANHWIASO%20BEKWAI%20DISTRICT.pdf>. (Accessed 21 April, 2020).
- Afari, H., Hirschhorn, R.L., Michaelis, A., Barker, P., & Sodzi-Tettey, S. (2014). Quality improvement in emergency obstetric referrals: qualitative study of provider perspectives in Assin North district, Ghana. British Medical Journal Open. doi:10.1136/bmjopen-2014-005052.
- Citinewsroom/Ghanaweb. (April 2018). One constituency, one ambulance – Bawumia announces. Available at: <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/One-constituency-one-ambulance-Bawumia-announces-645664>. (Accessed 21 June, 2018).
- Daily Graphic Online. (September, 2019). Korle Bu acquires 200 beds to end 'no bed syndrome'. Available at: <https://www.graphic.com.gh/news/health/korle-bu-acquires-200-beds-to-end-no-bed-syndrome.html> (Accessed 22 November, 2019).
- Daily Guide Network/Ghanaweb. (January 28, 2020). Ghana gets 145 new Ambulances. Ghanaweb. Available at: <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Ghana-gets-145-new-ambulance-stations-850612>. (Accessed 1 May, 2020).
- GHS. (2019). The Health Sector in Ghana: Facts and Figures 2019. Accra: GHS.
- Ghana News Agency. (November, 2018). Government to take steps to revamp ambulance service. Available at: <https://www.ghananewsagency.org/health/government-to-takes-steps-to-revamp-ambulance-service-141406>. (Accessed 22 November, 2019).
- Ghanaweb. (June, 2019). 70-year-old man's 'no-bed' death: C&J had 20 empty beds; LEKMA, Ridge hospital too – Report. Available at: <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/70-year-old-man-s-no-bed-death-C-J-had-20-empty-beds-LEKMA-Ridge-hospital-too-Report-754080>. (Accessed 22 November, 2019).
- Institute of Statistical, Social and Economic Research (ISSER) (2019). Health. *Ghana Social Development Outlook 2018* (pp. 33-81). Accra: ISSER.
- Japiong, B. K., Asiamah, K. B., Owusu-Dabo, E., Donkor, E., P., Stewart, B., Ebel, E. B. & Mock, N. C. (2016). Availability of resources for emergency care at a second-level hospital in Ghana: A mixed methods assessment. African Journal of Emergency Medicine, 6, 30–37. 6(1):30-37. doi: 10.1016/j.afjem.2015.06.006
- Lagomarsino, G., Garabrant, A., Adyas, A., Muga, R., & Otoo, N. (2012). Moving towards universal health coverage: health insurance reforms in nine developing countries in Africa and Asia. The Lancet, 380(9845), 933-943.
- Lozano R, Naghavi M, Foreman K... & Murray, C.JL. (2012). Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. The Lancet, 380(9859):2095–128. Doi: [https://doi.org/10.1016/S0140-6736\(12\)61728-0](https://doi.org/10.1016/S0140-6736(12)61728-0)
- Mould-Millman, N.K., Oteng, R., Zakariah, A., Osei-Ampofo, M., Oduro, G., Barsan, W., Donkor, P. & Kowalenko, T. (2015). Assessment of Emergency Medical Services in the Ashanti Region of Ghana. Ghana Medical Journal, 49(3).
- Myjoyonline (September 2019). Major boost for emergency care as 96 ambulances land. Available at: <https://www.myjoyonline.com/news/2019/September-23rd/major-boost-for-emergency-care-as-96-ambulances-land.php>. (Accessed 22 November, 2019).
- Norman, I. D., Aikins, I. D M., Binka, F.N. & Nyarko, K.M. (2012). Hospital All-Risk Emergency Preparedness in Ghana. Ghana Medical Journal, Special Article, 46(1): 34–42.
- Stewart, B, Khanduri, P, McCord, C, Ohene-Yeboah, M, Uranues, S, Vega Rivera, F, & Mock, C. (2014). Global disease burden of conditions requiring emergency surgery. British Journal of Surgery, 101(1): e9–e22. doi: 10.1002/bjs.9329.
- United Nations. (2020). Ghana Population 2020 – Worldometer. Available at: <https://www.worldometers.info/world-population/ghana-population/> (Accessed 16 May, 2020).
- Zakariah, A., Stewart, T. B., Boateng, E, Achena, C., Tansley, G. C., & Mock, C. (2017). The Birth and Growth of the National Ambulance Service in Ghana. Prehospital and Disaster Medicine, 32(1): 83–93. doi: 10.1017/S1049023X16001151.



This policy brief is primarily based on the "Health" chapter of the Ghana Social Development Outlook 2018 (ISSER, 2019, 33-81), with updates from more recent data.

Researchers

*Adobea Y. Owusu (PhD, MPH), ISSER, University of Ghana

*Corresponding researcher: ayowusu@ug.edu.gh

Kofi T. Asante (PhD), ISSER, University of Ghana

Published by:

Institute of Statistical, Social and Economic Research (ISSER)

P. O. Box LG 74, Legon, Accra.

Tel: +233 057 7699900 / 1 / 2

Email: isser@ug.edu.gh

Website: www.isser.ug.edu.gh



ISSERUG



ISSER_UG