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## The Surgical Training Program: Increasing access to essential surgical care in Sierra Leone by training Medical Doctors and Community Health Officers.

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**Background:** Surgical and obstetrical emergencies are poorly addressed in Sierra Leone. Lack of human resources is a main contributing factor. The current Ebola crisis has an extra negative impact on this situation. There are obvious needs for innovative strategies to cope with the huge unmet need for surgery and obstetric care in rural parts of the country. In East-Africa there is experience and evidence that surgical task shifting can increase the surgical capacity. The objective of the study is to implement a surgical training program for Medical Doctors (MD) and Community Health Officers (CHO) to perform basic life saving surgery at district hospital level. This is done in cooperation with the Ministry of Health and Sanitation (MOHS).

**Methods:** From January 2011, every year approximately 10 students are selected to start in the program. The first 6 months of basic training are organized in Masanga Hospital followed by 2 rotations in partner hospitals. After 2 years an exam is obtained followed by housemanships in the governmental hospitals in Freetown. The Ministry of Health and Sanitation is involved in the selection of the candidates, the examination and the housemanships. Curriculum is based on the WHO Integrated Management of Emergency and Essential Surgical Care. During the training students record all surgical procedures in a logbook.

**Results:** In the period between January 2011 and June 2014, 31 students were enrolled, 1 MD and 30 CHOs. Two students have finished their housemanships, of which one is placed by the government in a district hospital. Nine others have finished their exams, 8 of them have started with housemanships and the MD is in surgical specialization in Ghana. On average, the students have participated in 349 surgeries per year. All students have participated in 14 902 surgical procedures either as observer (20.7%), assistant (40.6%) surgeon supervised (20.3%) or surgeon independent (18.4%). The three most performed procedures were inguinal hernia repair (26.1%), caesarian section (21.1%) and explorative laparotomy (4.5%). The data after June 2014 shows a huge decrease in surgical activity as a result of the Ebola crisis.

**Conclusion:** Short course training for MDs and CHOs is feasible in Sierra Leone and can contribute to address the unmet need for surgical and obstetrical care within a short timeframe. The current Ebola outbreak has major negative impact on the Sierra Leonean health care system and the program. As soon as the Ebola epidemic is under control the program will continue to train health workers in basic life saving surgery and assist in rebuilding the Sierra Leonean healthcare system. Cooperation with the government will continue to be essential.