



Nyangao location in South-East part of the country



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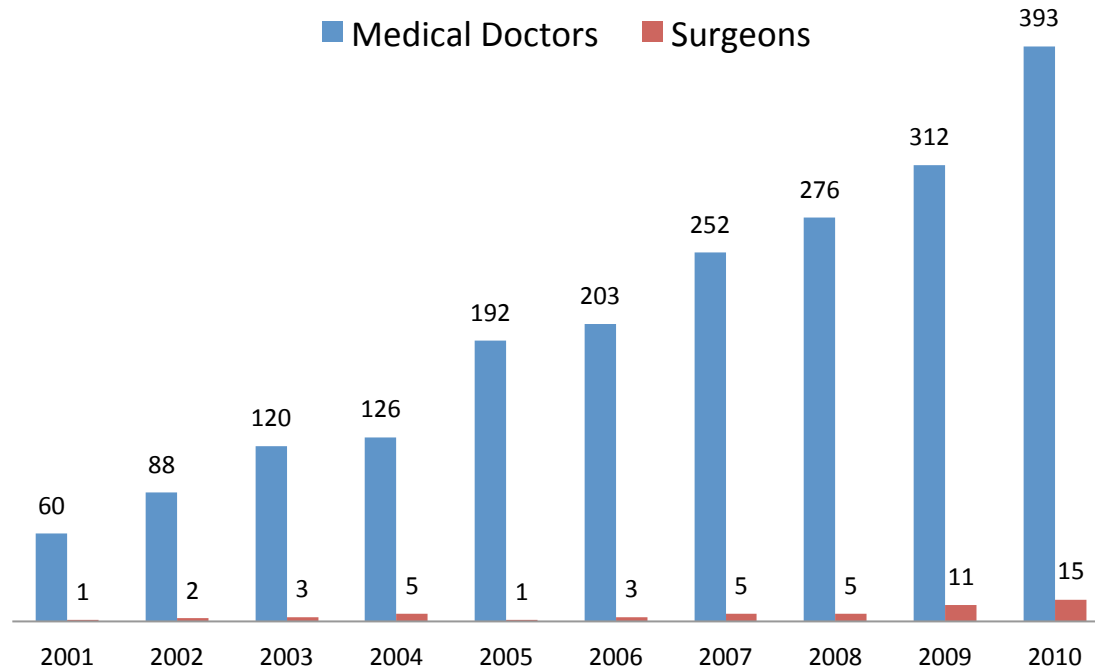
With Operation Theatre Staff

Why surgeons from western countries should come to work in Low Resource Settings (LSR)?

Or why not?

How is the situation with surgeons
in Tanzania

Number of graduate Medical Doctors and Surgeons in Tanzania 2001 - 2010



Based on an article in East African Journal of Surgery, Nov/Dec 2013, Vol. 18(3). A One Decade Trend of Transforming Medical Doctors to Surgeons in Tanzania: the Leaking Trough, by O.V. Nyongole, N. Siril and A. Kiwara.

Who is performing most of surgery
in Tanzania?

What surgeons are coming to Tanzania from abroad?

- Organized short-term visiting groups or individuals offering specialized services such as plastic-, cardiovascular- or neuro-surgery. They usually visit the larger medical centers.
- Personal, short-term visits of one or two months by surgeons with a connection to mission or faith-based hospitals such as KCMC in Moshi or Ndanda Mission Hospital. Often they are retired.
- Young doctors sent by VSO, AGEH or other NGO after short surgical training usually connected with specialization of Tropical Diseases.
- Designated surgeons from western teaching hospitals and institutions sent to training centers and medical facilities for limited time periods.
- Individuals like me, surgeons who work in Tanzania for long period of time and not belonging to above mentioned groups are great exception.

Why should surgeons from western countries come to work in LRS countries?

- The main reason is great shortage of surgeons due to above mentioned factors and the fact that Governments are not able to change situation in short time.

They are badly needed, but they need to be dedicated and aware of the constraints and sacrifices to be faced. They should also be aware that even those few enthusiasts from western countries who choose to work in LRS for longer periods of time will not be able to change the general situation.

- Work in LRS country is giving an occasion to practice and enhance surgical skills. General surgeons can gain additional experience and broaden their surgical skills set into areas such as gynecology, obstetrics, urology, orthopedics, pediatric surgery and many others. On the other hand is necessary to be aware that taking such a path is just the opposite from the trend in developed countries to becoming more specialized.

Even experience surgeon needs not less than one year working in LRS to feel comfortable with different cases in different circumstances.

Major operations in Nyangao Hospital in 2013

Head and Neck:	
Thyroidectomy	12*
Nasal polypectomy	2
Tracheostomy	1
Craniotomy	1
Total Head and Neck	16
Chest:	
Mastectomy (palliative and radical)	14*
Lumpectomy	12
Removal coin from esophagus	2
Thoracotomy	1
Total Chest	29
Abdomen:	
Inguinal hernia op.	125
Inguinal hernia obstructed op.	72
Exploratory laparotomy (biopsy, drainage)	27
Umbilical hernia op.	25
Epigastric hernia op.	18
Incisional hernia op.	14
Laparotomy for peritonitis	12
Anal fissure op.	11
Appendectomy	10*
Partial resection of small intestine	8
Small intestine repair	8
Jejuno or ileo-transversostomy	8
Hartmann's procedure	8
Femoral hernia op.	8
Adhesiolysis of bowels	7
Sigmoidectomy	7
Anal fistula op.	6
Colostomy closure (opening)	5
Splenectomy	5
Hemicolectomy	5
Ulcerorrhaphy	4
Gastrostomy	4
Imperforated anus opening, plasty	4
Haemorrhoidectomy	4
Colostomy	3
Resuturing of burst abdomen	3
Ileostomy	3

Excision anal warts	3
Detorsion of sigmoid volvulus	3
Cholecystectomy	2*
Colon repair	2
Rectal polypectomy	2
Thiersch's procedure for prolapsing anus	1
Choledochoduodenostomy	1
Ruptured liver repair	1
Omphalocele operation	1
Gastroenteroanastomosis	1
Swenson's op. for Hirshprung disease	1
Partial colon resection with anastomosis	1
Duodenal bleeding ulcer hemostatic suture	1
Total Abdomen	434

Skin and Subcut. Tissue:	
Excision of various tumours, biopsy	84
Wound toilet and suture, I&D	36
Skin graft	6
Total Skin and Subcutaneous Tissue	126

Bones and Joints:	
External fixation	55*
Open reduction- internal fixation (Küntscher nail-20, other intramedullary nails-5, plates & screws-5, Kirschner wire-12,	42*
Operations for osteomyelitis	35
Metal implants removal	23
Above knee amputation	22
Fingers (toes) amputation	9
Below knee amputation	5
Above elbow amputation	3
Close reduction	3
Tibial traction (in Op. Theatre)	2
Below elbow amputation	1
Foot amputation	1
Total Bones and Joints	201

Urological operations:	
Hydrocelectomy	82
Orchidectomy	53
Prostatectomy	17*

Bougienage urethra	7
Cystotomy, tumour biopsy	6
Urine bladder repair	4
Urethroplasty	4
Partial scrotal resection and plasty	2
Nephrectomy	2
Orchidopexy	2
Suprapubic cystostomy	2
Ureterocystoneostomy	1
Perineal urethrostomy	1
Cystolithotomy	1
Ureterolithotomy	1
Funiculocele excision	1
Total Urological	186

Gynecological operations:	
Adnexectomy (incl. ectopic pregnancy)	92
Subtotal hysterectomy (incl. due to rupture of uterus)	61
TAH	54
BTL	31
TVH	31*
Kolporrhaphy anterior	28
Cystoophorectomy	19
Salpingectomy (incl. ectopic pregnancy)	18
TAH with adnexa	16
Adhesiolysis of adnexa, stomatoplasty	15
Kolporrhaphy posterior	8
Myomectomy	6
Operation for Bartholin's cyst	6
VVF repair (2005-24, 2006-32, 2007-23, 2008-27, 2009-30, 2010-13)	4*
Excision endometriosis	1
Total Gynecological	390

Obstetrical operations:	
Cesarean section	331
Uterus repair	2
Total Obstetrical	333

Total major operations (for 1525 patients)	1715
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Why they should not come?

- There is the possibility of loss of an opportunity to advance in the surgical profession. If a surgeon from a developed country decides to work in an LRS country it usually results in a difficult situation because it is often impossible to return to the same place or position at a later date.
- There is a greater danger to life and health from traffic accidents, tropical diseases, animals and other factors.
- For families, it can be difficult because of the lack of good schools and a limited social and cultural life.
- The everyday difficulties arising from shortages of everything: instruments, surgical supplies, medicaments and staff as well as interruptions in services such as electricity and water supply.
- Deciding to come and work in Africa (or any LRS place) is a task for dedicated and healthy people who are both physically and emotionally strong. Working in a different climate with very different living and social conditions is not for everyone.
- From my observations the first few months are the most difficult. It seems that problems that are small in one's own country can become very large in a different environment. This can lead to frustration and even depression causing people to leave before the end of their contract. I have seen many of these cases.



With “patient of the year”

Nyangao surgical team with victim of hyena attack before and after treatment



Child saved after fish bones removed from trachea



Conclusion

- In Tanzania like in most of LRS countries there is a great shortage of surgeons especially in rural areas.
- Every Regional hospital in Tanzania should have a specialist surgeon and every District/Mission hospital at least one AMO well-trained in surgery.
- Surgeons from western countries can help on many ways, but they can't change general situation.
- Real change can be done by local authorities implementing:
 - Effective training system
 - Economic incentives
 - Administrative decisions including proper distribution of surgeons

