

Patients in need for plastic surgery in sub-Saharan Africa: estimating the unmet surgical burden

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INTRODUCTION

- Access to surgery in Subsaharian africa (SSA) is major public health challenge, with plastic surgery particularly affected
- The burden is poorly quantified, with no comprehensive estimates
- Aim: estimate annual need and map specialized centers

METHOD

- Data sources: GBD, EUROCAT (pathologies), American and German society of plastic surgeons (surgery rates)
- Pathologies : burns, congenital malformations, soft tissue cancers, hand trauma, breast cancer, pressure ulcers
- For conditions not systematically requiring surgery, intervention rates from US/Germany were applied to SSA
- Plastic surgery centers identified from COSECSA, WACS, published sources

RESULTS

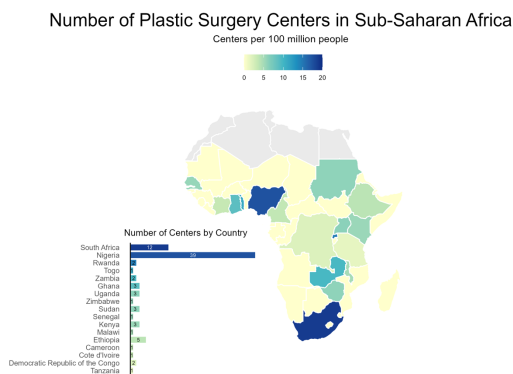
NUMBER OF SURGERY NEEDED

- We estimate that at least 537'353 plastic surgeries are needed annually in SSA.

Category	Number of Surgeries	Confidence Interval (95% CI)
Burns (>20% TBSA)	227'318	191'207 – 268'032
Burns (<20% TBSA)	29'369	25'000 – 35'000
Nerve injuries requiring surgery	18'601	14'349 – 24'277
Hand and wrist trauma requiring surgery	78'477	64'892 – 94'085
Pressure ulcers (decubitus)	906	716 – 1'144
Total Trauma	354'671	296'164 – 422'491
Orofacial clefts	50'117	35'590 – 67'888
Syndactyly	12'904	12'215 – 13'703
Polydactyly	48'904	46'219 – 51'879
Limb reduction defects	16'762	15'845 – 17'784
Total congenital malformations	128'687	109'869 – 151'254
Breast cancer surgeries	83'171	70'001 – 96'541
Soft tissue/extracutaneous sarcomas	10'214	7'529 – 15'558
Lip and oral cavity cancer	12'563	10'622 – 14'647
Total cancer	105'948	88'152 – 126'746
Total	537'353	429'775 – 600'491

NUMBER OF CENTERS

- Only 81 centers identified in 17 of 48 SSA countries, leaving 318 million people without access to specialized plastic surgery care



CONCLUSION

- There is a substantial gap between the high volume of reconstructive needs and the limited availability of trained specialists and infrastructure in SSA
- At least 537'353 plastic surgeries are needed annually in SSA
- This study is based on the limited available data and likely to underestimate the actual numbers.

