

# Global Perspectives in Rural Surgical Services

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## Outline

- Global Health Trends since 1978
- What is "Global Surgery"?
- The First-Level Hospital
- Rural Canada
- Questions

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## 1. The Alma-Ata Declaration

*The Conference strongly reaffirms that health, which is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector.*

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## 2. Primary Health Care Pushed Aside

- PHC criticized
- Selective Public Health Care (SPHC) developed
- decision making power with foreign consultants
- funding based on policies of agencies
- the vertical, silo approach continues

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### 3. The Return to PHC

- World Health Report 2008 (WHO)
- changing values, rising expectations
- recognition of worrisome trends in health systems based on "Health Sector Reform" models
- Primary Health Care is back!

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What does this have to do with surgery?

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## Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015



GBD 2015 DALYs and HALE Collaborators\*



### Summary

**Background** Healthy life expectancy (HALE) and disability-adjusted life-years (DALYs) provide summary measures of health across geographies and time that can inform assessments of epidemiological patterns and health system performance, help to prioritise investments in research and development, and monitor progress toward the Sustainable Development Goals (SDGs). We aimed to provide updated HALE and DALYs for geographies worldwide and evaluate how disease burden changes with development.

**Methods** We used results from the Global Burden of Diseases, Injuries, and Risk Factors Study 2015 (GBD 2015) for all-cause mortality, cause-specific mortality, and non-fatal disease burden to derive HALE and DALYs by sex for 195 countries and territories from 1990 to 2015. We calculated DALYs by summing years of life lost (YLLs) and years of life lived with disability (YLDs) for each geography, age group, sex, and year. We estimated HALE using the Sullivan method, which draws from age-specific death rates and YLDs per capita. We then assessed how observed levels of DALYs and HALE differed from expected trends calculated with the Socio-demographic Index (SDI), a composite indicator constructed from measures of income per capita, average years of schooling, and total fertility rate.

**Lancet 2016; 388: 1603–58**  
This online publication has been corrected. The corrected version first appeared at [thelancet.com](http://thelancet.com) on January 5, 2017

See **Editorial** page 1447

See **Comment** pages 1448 and 1450

\*Collaborators listed at the end of the Article

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## Global Burden of Disease Study

- began in 1990 to estimate the global disease burden
- uses the metric Disability-Adjusted Life Year (DALY)
- most comprehensive study of the global pattern of disease
- updates over time allow us to study trends in global health
- powerful tool to set priorities, for health policy and research

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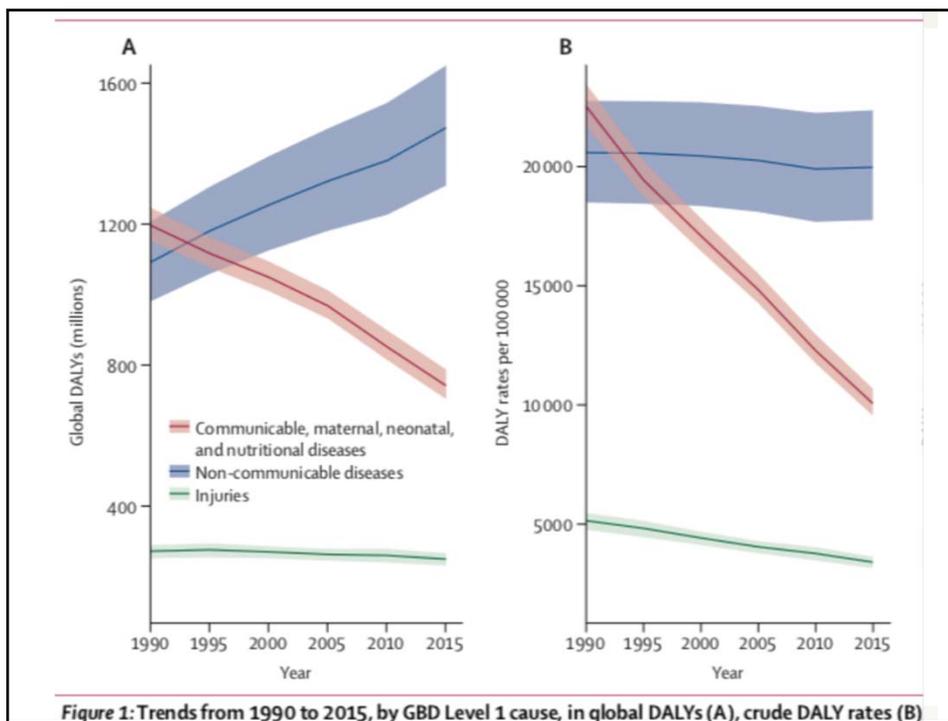


Figure 1: Trends from 1990 to 2015, by GBD Level 1 cause, in global DALYs (A), crude DALY rates (B)

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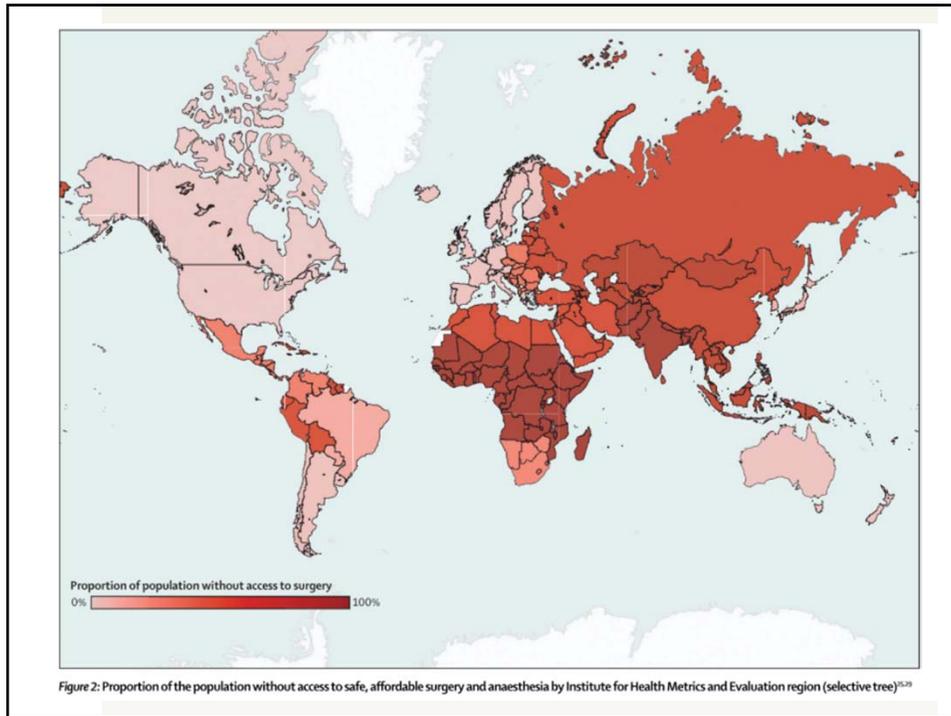
## Global Burden of Surgical Disease

HIV/AIDS    Tuberculosis    Malaria

Trauma

- TB, malaria, and HIV/AIDS used as a comparator
- deaths to these 3 = deaths to injury alone
- total surgical GBD far exceeds these 3, yet have not been a priority until recently
- early estimates were 11%, recent ones up to 32%
- >70% of the world has little or no access to surgical services

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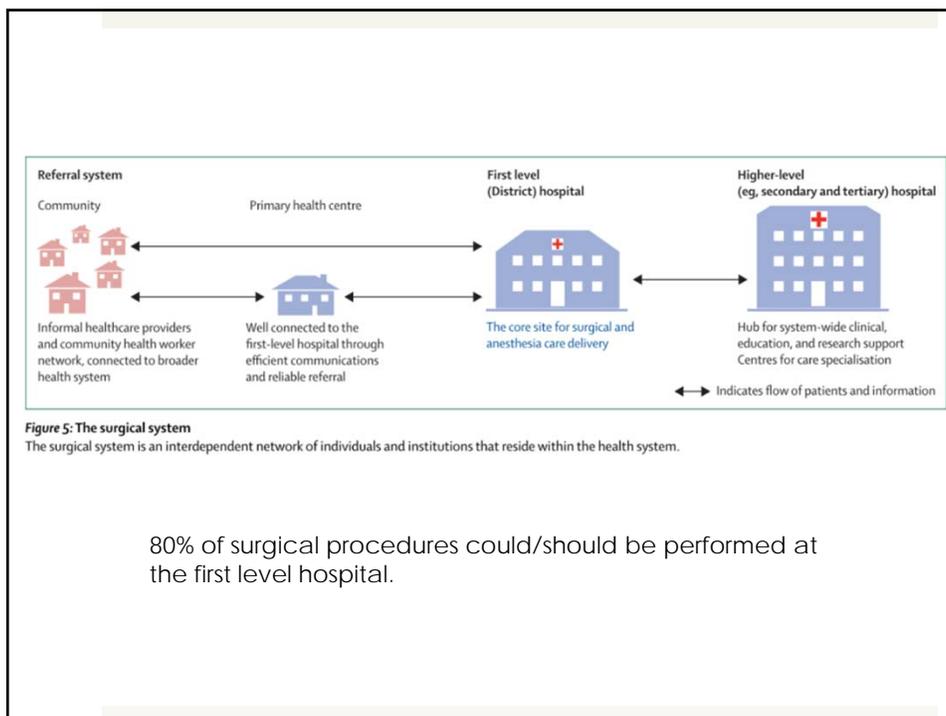


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"Surgery may be thought of as the neglected stepchild of global public health."

Paul Farmer and Jim Kim

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## Primary Care Surgery

- management of surgical conditions at the first levels of contact within a given health care system
- emergency and essential surgical services

Surgical Condition: any condition that requires suture, incision, excision, manipulation, or other invasive procedure that usually, but not always, requires local, regional, or general anaesthesia

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## Surgery: the Neglected Component of Primary Care

### Essential Surgery: the Backbone of Primary Care

### Essential Surgical Services: An Emerging Primary Health Care Priority

- Selected publication titles

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	Platform for delivery of procedure		
	Community facility and primary health centres	First-level hospitals	Referral and specialised hospitals
Dental procedures	Extraction Drainage of dental abscess Treatment for caries*	--	--
Obstetric, gynaecological, and family planning	Normal delivery†	Caesarean birth† Vacuum extraction or forceps delivery† Ectopic pregnancy† Manual vacuum aspiration and dilation and curettage† Tubal ligation Vasectomy Hysterectomy for uterine rupture or intractable post-partum haemorrhage† Visual inspection with acetic acid and cryotherapy for precancerous cervical lesions	Repair obstetric fistula
General surgical	Drainage of superficial abscess† Male circumcision	Repair of perforations (perforated peptic ulcer, typhoid ileal perforation, etc)† Appendectomy† Bowel obstruction† Colostomy† Gallbladder disease (including emergency surgery for acute cholecystitis)† Hernia (including incarceration)† Hydrocolectomy Relief of urinary obstruction; catheterisation or suprapubic cystostomy (tube into bladder through skin)†	--
Injury†	Resuscitation with basic life support measures† Suturing laceration† Management of non-displaced fractures†	Resuscitation with advanced life support measures, including surgical airway† Tube thoracostomy (chest drain)† Trauma laparotomy† Fracture reduction† Irrigation and debridement of open fractures† Placement of external fixator; use of traction† Escharotomy or fasciotomy (cutting of constricting tissue to relieve pressure from swelling)† Trauma-related amputations† Skin grafting Burr hole†	--
Congenital	--	--	Cleft lip and palate repair Club foot repair Shunt for hydrocephalus Repair of anorectal malformations and Hirschsprung's disease
Visual impairment	--	--	Cataract extraction and insertion of intraocular lens Eyelid surgery for trachoma
Non-trauma orthopaedic	--	Drainage of septic arthritis† Debridement of osteomyelitis†	--

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Where do we go from here?

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## Cairns Consensus Statement

*Around the world, health systems are under pressure due to unsustainable growth in expenditures, ageing populations, an increasing burden of chronic non-communicable disease, unwarranted fragmentation and specialization of care, persistent health inequities and, in many countries, large gaps in medical, nursing and midwifery workforce. Rural Generalist Medicine – and clinical generalism more broadly - offers an important positive contribution to meeting these challenges.*

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## Rural Canada

- What are the gaps for us?
- What is happening to (surgical) health systems in rural Canada, at this first-level hospital end of the spectrum?
- Who is or should be providing those “primary care” surgical services?
- What is happening to rural maternity programs?
- Knowing that half of indigenous Canadians live in rural and remote areas, what is the impact on them?

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## Questions

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