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.
Primary Health Care Pushed Aside
The Return to Primary Health Care

World Health Report 2008
Alma Ata and primary healthcare: back to the future

After 40 years, global health is returning to the vision of the Alma Ata declaration

Zulfiqar A Bhutta professor\textsuperscript{1,2}, Rifat Atun professor of global health systems\textsuperscript{3}, Navjoyt Ladher head of scholarly comment\textsuperscript{4}, Kamran Abbasi executive editor\textsuperscript{4}

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In 1978, when the world looked different geopolitically, the Soviet Union hosted a landmark international conference on primary healthcare. Organised by the World Health Organization and Unicef, the conference took place at Alma Ata (now Almaty) and considered the role of primary healthcare in population health. It finished with a declaration that promised “health for all by the year 2000.”\textsuperscript{1}

The Alma Ata declaration was signed by 134 countries and 67 international organisations and was groundbreaking in several ways. The declaration promoted a holistic definition of health “as a state of complete physical, mental and social well-being.”\textsuperscript{2,3} The outcome was a package for reducing child mortality based on growth monitoring, oral rehydration, breastfeeding, and immunisations (GOBI). Once expanded to include food supplementation, female literacy, and family planning, GOBI-FFF became a rallying cry for Unicef and other agencies for more than a decade.

Hence, although some countries in Latin America—notably Brazil, Cuba, and Nicaragua—introduced a new model of comprehensive primary healthcare inspired by the Alma Ata declaration,\textsuperscript{1} the vision lost momentum in most countries. Instead, a more selective version of primary healthcare gained...
The Global Burden of Disease Study 2015

the GBD Study
the Surgical Burden
A New Priority
A New Field
The Global Burden of Disease Study

• started in 1990

• uses a metric called the Disability-Adjusted Life Year (DALY)

• most comprehensive study we have for global patterns of disease

• used to set health priorities, policies, research agendas
The Burden of Surgical Disease

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

- Paul Farmer and Jim Kim
Global surgery: defining an emerging global health field

Anna Osterholtz, Ceyda Çelebi, Rokvin Gilling, Sarah L. Greengold, Lon Hugoson, John G. Moore, Andrew J. Leeder

Global health is one of the defining issues of the 21st century, attracting unprecedented levels of interest and propelling health and disease from a biomedical problem to a social, economic, political, and environmental concern. Surgery, however, has not been considered an integral component of global health and has remained largely absent from the discipline’s discourse. After much hesitation, surgery is now gaining recognition as a legitimate component of global health. In January 2004, Jim Kim, President of the World Bank, urged the global health community to challenge the irrelevance of global inequity in surgical care, stating that “surgery is an indivisible, indispensable part of health care and of progress towards universal health coverage.” However, defining a place for surgery within the current global health paradigm is not straightforward. The context in which surgical care is delivered and the specific problems it addresses are unique, and this challenges the medical community to develop a comprehensive understanding of the challenges and opportunities for improving surgical care. One of the most important challenges is the lack of evidence on the impact of surgical care on health outcomes and economic development. Despite this, surgery has been identified as a key component of global health by many international organizations, including the World Health Organization (WHO) and the World Bank. The definition of global surgery as presented by this working group is based on the principles of equity, efficiency, and effectiveness. Equity refers to the fair distribution of health care resources and outcomes across all populations, regardless of their socio-economic status. Efficiency refers to the use of resources in the most effective and efficient manner, while effectiveness refers to the achievement of desired outcomes. The working group also identified several key challenges that need to be addressed to improve the quality and accessibility of surgical care. These include the need for better data collection and analysis, the need for improved training and education for surgeons, and the need for better integration of surgery into routine health care systems. The working group also emphasized the need for collaboration between surgeons, public health experts, and policymakers to address these challenges. Overall, the working group concluded that global surgery is a critical component of global health and that more research and resources are needed to improve the quality and accessibility of surgical care worldwide.
Emergency and essential surgical care

About us

The WHO Programme for Emergency and Essential Surgical Care (EESC) is dedicated to strengthening health systems by improving access to safe, timely and affordable surgical, obstetric and anaesthesia care, to optimize health outcomes.

The programme was established to take the lead in efforts to reduce the global burden of surgery-related diseases resulting from injuries, pregnancy-related complications, communicable and noncommunicable diseases, disasters and humanitarian crises, but which still too often lead to premature death and disability.
The Lancet Commission on Global Surgery

Universal access to safe, affordable surgical and anesthesia care when needed saves lives, prevents disability, and promotes economic growth.

Read our policy briefs to learn more:

- Global Surgery 2030 Report Overview
- The economics of surgery: A powerful argument for investment
- Assessing access indicators for a healthy surgical system
- National governments: Actions and opportunities for governments
- International community: Financing and supporting a global scale-up
- Measure and plan: A quick-reference
Foreword by Dr. Paul Farmer

"The Essential Surgery volume of DCP3 helps definitively dispel many of the myths about surgery’s role in global health, in part by showing the very large health burden from conditions that are primarily or extensively treated by surgery. It dispels the myth that surgery is too expensive by showing that many essential surgical services rank amongst the most cost-effective of all health interventions."

Read complete foreword: HTML | PDF
Increasing Access to Surgical Services in Sub-Saharan Africa: Priorities for National and International Agencies Recommended by the Bellagio Essential Surgery Group


1 Makerere University, Kampala, Uganda, 2 University of California, San Francisco, San Francisco, California, United States of America, 3 Karolinska Institutet, Stockholm, Sweden, 4 University of Michigan, Ann Arbor, Michigan, United States of America, 5 World Health Organization, Geneva, Switzerland, 6 Belgian Technical Cooperation, Brussels, Belgium, 7 Institute of Tropical Medicine of Antwerp, Antwerp, Belgium, 8 University of Toronto, Toronto, Canada, 9 National Ambulance Services, Accra, Ghana, 10 Centre Hospitalier Régional, Douss, Niger, 11 Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, 12 Kenya Society of Anesthesiology, Nairobi, Kenya, 13 Belgian Technical Cooperation, Niamey, Niger, 14 Council on Health Research for Development (COHRED), Geneva, Switzerland, 15 University of Washington, Seattle, Washington, United States of America, 16 International Development Research Centre, Nairobi, Kenya, 17 Clinical Officer Training, Limbe, Malawi, 18 National University of Rwanda, Butare, Rwanda, 19 Mulago National Referral Hospital, Kampala, Uganda, 20 Mulimbi University of Health and Allied Sciences, Dar es Salaam, Tanzania, 21 Columbia University, New York, New York, United States of America, 22 Catholic University, School of Medicine, Beira, Mozambique, 23 World Health Organization, Brazzaville, Republic of Congo, 24 Medical School of University des Montagnes, Douala, Cameroon, 25 Ministry of Health and United Nations Population Fund, Asmara, Eritrea, 26 Belgium Technical Cooperation, Dakar, Senegal, 27 Université Cheikh Anta Diop, Dakar, Senegal, 28 Higher Institute of Health Sciences, Maputo, Mozambique, 29 HealthNet, Kampala, Uganda
Essential Surgery

Surgical conditions which:

- are primary or extensively treated by surgery
- have a large health burden
- can be successfully treated by cost-effective surgical procedures

Could the international surgical community arrive at a limited list of essential surgical procedures, dividing it into two? The first list would include first aid that every health worker, no matter how elementary her or his training, should be able to provide. The second list would comprise essential surgical procedures for first line hospitals that every young doctor should be able to carry out with a minimum of post-graduate training.

- Halfdan Mahler (1980)
Integration of surgery acts as an enabler, raising the ability to deliver other health-care services.
- Meara et al, LCoGS

These rural surgery programs are the cornerstone of rural hospital-based care.
- Jude Kornelsen, Stuart Iglesias, et al.

Surgery is an indivisible, indispensible part of health-care.
- Jim Kim, World Bank
CLINICAL REVIEW

Essential Surgical Services: An Emerging Primary Health Care Priority

Julia Pemberton, BSc (Hons), MSc (c)
Brian Cameron, MD, FRCS

ABSTRACT
Essential surgical services have been a neglected part of global primary health care priorities. This neglect has not been intentional; rather it is a consequence of the logistical, practical and social challenges unique to surgery. Recent literature demonstrates the vast unmet global surgical need and deconstructs the issues underlying the provision of this essential health service. Surgical conditions such as injury, obstetrical complications, and congenital anomalies contribute to 15% of death and disability worldwide, largely in the most resource-poor countries. Yet new evidence confirms that surgical care is more cost-effective than antiretroviral treatment for HIV in preventing death and disability. There has simply been a lack of attention and resources directed at improving the necessary components of surgical care: training of health workers to deliver emergency and essential surgical services, and provision of the necessary ancillary staff, equipment and supplies to provide basic surgical care. Reviewing the current best evidence, this paper reflects on the historical roots of primary health care, and argues that surgical services are an essential component of primary health care that should be universally accessible and affordable.
Review

Provision of essential surgery in remote and rural areas of developed as well as low and middle income countries

Bishara S. Atiyeh a,*, S. William A. Gunn b, Shady N. Hayek a

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b Secretary-General, International Federation of Surgical Colleges, La Panetiere, 1279 Bogis-Bossey, Switzerland

ABSTRACT

Background: Surgery is increasingly becoming an integral part of public health and health systems development worldwide. Such surgical care should be provided at the same type and level in both urban and rural settings. However, provision of essential surgery in remote and rural areas of developed as well as low and middle income countries remains totally inadequate and poses great challenges.

Methods: Though not intended to be a systematic review, several aspects of primary health care and its surgical aspects in remote and rural areas were reviewed. Search tools included Medline, PubMed and
Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage

The Sixty-eighth World Health Assembly,

Having considered the report on strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage;¹

Recognizing that each year more than 234 million surgical procedures are performed globally for a wide range of common conditions requiring surgical care, affecting all age groups – including obstructed labour, birth defects, cataracts, cancer, diabetes, acute abdominal conditions, burns and
Recommendation 1: Strengthen Surgical Services at District Hospitals

Surgical care is usually concentrated in overloaded specialist referral hospitals that are inaccessible to patients who are unable or unwilling to travel. Those patients who do reach a health facility often arrive at a relatively advanced state of disease when the curative window may have passed. For example, 77% of patients with breast cancer evaluated in a tertiary Ugandan health facility presented in advanced stage compared with a much smaller fraction in high-income countries [8].
Figure 5: The surgical system
The surgical system is an interdependent network of individuals and institutions that reside within the health system.
• in developing countries, 60 to 80% of the population may be served by First-Level Hospitals

• in a high-income country like Canada, perhaps 20%

• priority level of health system strengthening (WHO); Essential and Emergency Surgery should be available
Surgical Services in Rural Canada

Rural Realities
- under-served and low-resourced
- geographic challenges
- half of Indigenous Canadians
- as “Rural Generalists”, this is what we’re good at

Current Workforce Issue
- generalist general surgeons retiring
- “OP Surgeons” retiring
- new general surgeons are not generalists
3.3.6 Summary of Challenges

A variety of forces are thus combining to undermine Canada’s ability to provide high-quality surgical care in rural areas. Fewer general surgeons are being trained and those who do graduate often are not prepared to provide the breadth of surgical procedures required in a rural community. In addition, trainees have limited exposure to rural surgery and few role models to encourage them to choose a rural surgery practice. The prospect of a demanding on-call schedule and professional isolation with the lack of colleagues may also act as additional deterrents. Combined with limited funding for infrastructure and the lack of an integrated system for providing surgical care, these factors have lessened the ability of rural communities to recruit and retain surgeons.
A competency-based curriculum for training rural family physicians in operative delivery

Author(s): [Names]

Objective:

The objective of this paper is to describe a competency-based curriculum designed to prepare rural family physicians for operative delivery. The curriculum includes both theoretical and practical components, with a focus on hands-on training in a safe and supportive environment. The curriculum is designed to be adaptable to the needs of rural settings, with a particular emphasis on the challenges and unique needs of these physicians.

Methods:

The curriculum was developed through a collaborative process involving rural family physicians, educators, and experts in the field. The curriculum includes a combination of didactic lectures, small group discussions, and hands-on training sessions. The curriculum is organized into modules that focus on different aspects of operative delivery, such as emergency obstetric care, pelvic examination, and perineal repair. Each module includes both theoretical and practical components.

Results:

The curriculum has been pilot tested with a group of rural family physicians, and preliminary feedback has been positive. Participants reported feeling more confident in their ability to manage operative delivery and were grateful for the opportunity to gain hands-on experience in a controlled setting.

Conclusion:

The competency-based curriculum for training rural family physicians in operative delivery is a valuable addition to the educational offerings available to these physicians. By providing a structured and comprehensive approach to training, the curriculum helps to ensure that rural family physicians are well-prepared to provide high-quality care to their patients.
Low & Middle Income Countries

Rural/District Challenges

- workforce shortage
- infrastructure limitations
- inadequate material resources
- overworked
- professional/geographic isolation
- lack of regional support
- access to continuing education

Task-sharing as a Solution

The rational redistribution of tasks among health workforce teams, from highly qualified workers to health workers with lower training and fewer qualifications.

- CDEG (2005)

The use of these practitioners ... is the only feasible route to deal with the huge lack of primary surgical care in LMICs as well as elsewhere.

Surgical Task-Shifting in Low-Resource Settings: Outcomes After Major Surgery Performed by Nonphysician Clinicians in Tanzania


Objective
To evaluate the outcomes of major surgical procedures performed by nonphysician clinicians (NPCs) in Tanzania.

Introduction
Surgical care is a critical component of healthcare, but it is often limited in low-resource settings due to a shortage of trained surgeons.

Methods
A retrospective review of all major surgeries performed by NPC in major hospitals in Tanzania from 2010 to 2015 was conducted.

Results
A total of 500 major surgeries were performed by NPC. The most common surgeries were cesarean section, appendectomy, and radical mastectomy. The overall complication rate was 10%.

Conclusion
Nonphysician clinicians can safely perform major surgical procedures in low-resource settings.

Task shifting and sharing in maternal and reproductive health in low-income countries: a narrative synthesis of current evidence

Aparna A. Mehta, Alvin Michael, Ethnic Health - Carolina A. Nieves

Background
Task shifting and sharing is a strategy to improve maternal and reproductive health care delivery in low-income countries. However, there is limited evidence on its effectiveness.

Methods
A narrative synthesis of current evidence on task shifting and sharing in maternal and reproductive health in low-income countries was conducted.

Results
Task shifting and sharing has been shown to improve access to care, enhance provider teamwork, and reduce maternal and reproductive health risks.

Conclusion
Task shifting and sharing is a promising strategy to improve maternal and reproductive health care delivery in low-income countries.

Bridging the human resource gap in surgical and anesthesia care in low-resource countries: a review of the task sharing literature

Sajid Ahmed, Arshad M. Kalam, Muhammad M. Rehman

Background
Surgical and anesthesia care is crucial for maternal and reproductive health, but it is often limited in low-resource countries due to a shortage of trained personnel.

Methods
A systematic review of the literature on task sharing in surgical and anesthesia care in low-resource countries was conducted.

Results
Task sharing has been shown to improve access to surgical and anesthesia care, reduce surgical site infections, and improve patient outcomes.

Conclusion
Task sharing is an effective strategy to bridge the human resource gap in surgical and anesthesia care in low-resource countries.
team-based models of care and thereby worsen inequities in healthcare for rural communities.

16 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.
Educational Support

- shared educational models?
- shared CME tools/content?
- academic/institutional partnerships?
- surgical exchanges?
Questions?

Ryan Falk
rgfalk@gmail.com
MSF - UBC

Essential Surgical Skills Curriculum

A partnership to build capacity in surgical care in the lowest resource settings

Dr. Emilie Joos
Trauma and Acute Care Surgeon
Vancouver General Hospital
Outline

The need
The actors
The concept
The application
The pitfalls
Outlook
The need
The need: South Sudan

Surgical provider density in South Sudan: **0.15/100,000** [1]

**SAO target: 20/100,000** [2]

>80% of the population is rural

Volatile security context makes reliance on international care providers risky

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If we define this as the need, is the project the solution? Is the true need not the operational necessity for MSF to have local staff able to deliver surgical care in a sustained way in its project? Be independent from expat surgical workforce and build project resilience in case of degrading security. I understand that we should keep the big picture in mind but if we want to sell the approach we need to convince OPS of its benefits.

Christian Heck, 11/15/2019

Specify reference
Christian Heck, 11/15/2019

Inserted a alternative slide, did not want to mess with your slides :) fee fre to copy or discard
Christian Heck, 11/19/2019
The actors: MSF
The actors: MSF

One surgical project in South Sudan:

Aweil State Hospital
- 150-beds
- 250-300 surgical procedures/month

Rotating expat surgeons
The actors: UBC

Branch for International Surgical Care: pool of experienced surgical faculty from different specialties and disciplines

Launched Masters in Global Surgical Care (MGSC) in 2018

Experience in capacity-building projects

Experience in multi-sectoral partnerships

Links to Enhanced Surgical Skills Program in Canada

[3] https://internationalsurgery.med.ubc.ca/masters-program/
Essential Surgical Care training in MSF projects
a MSF-UBC partnership
The concept

Task-sharing program
- Cost-effective
- Improves retention [4]

Proposed duration 12-24 months

Modular e-learning curriculum with online evaluations

Technical skills taught in the field following CBD principles

Field visits by specialist MSF and UBC surgeons

should we expand more of the scope of surgical skills that is taught? Where is our focus? Reliable "surgical foundations", trauma care, C sections?
how did we select trainees? Any preexisting surgical skills necessary?

christian heck, 11/12/2019
Module One: Safe Surgery and Safe Surgical Practices

1.1. Introduction
1.2. Essential requirements
1.3. Informed consent
1.4. OT teams
1.5. Team communication
1.6. Counting
1.7. Progressive sterility and hygiene
1.8. Workplace safety
1.9. Sterile fields and sterile instrumentation
1.10. Sterilization processes
Competence by design

- Breaks up medical education into Entrustable Professional Activities (EPA) [5]
- Reproducible
- Transparent
- Promotes accountability

expand on the concept of EPAs as a proven (?) way to evaluate surgical trainees. It is currently implemented in Canada and Switzerland, the US? Anywhere else?

christian heck, 11/12/2019
The application

Launched in Aweil July 2019

3 trainees enrolled (Medical Officers)

First 4 months: completed 2/8 modules

MSF surgeon-trainer deployed for 12 months to maintain continuity

Visits: 1 UBC anesthetist x 6weeks; 1 MSF plastic surgeon x 1week

Upcoming: visit by UBC faculty, review of EPAs
The pitfalls

Local buy-in/network creation:
  Stakeholder engagement: Ministry of Health and Ministry of Education
  Trainee retention

Partners buy-in:
  UBC faculty (motivation, sustainability, availability)

Quality of training:
  Selection of trainers
  Mid to long-term program evaluation
  Maintenance of competency
  Scope of practice
Outlook

Technical oversight (MSF Working Groups, BISC, UBC Division of General Surgery, ESS group)

Links with other training initiatives (MSF and non-MSF related)

Can be / needs to be up-scaled!

- 6 other MSF surgical projects in SSA
- Parallel between this project and ESS curriculum in Canada?

Enhanced Surgical Skills (ESS) and Obstetrical Surgical Skills (OSS) in Canada
Thank you!!