

국제 보건/의학에서 수술적 접근

김 응한

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Global Surgery

KIM Woong-Han

*Is surgery part of the
global health agenda ?*

UN 새천년개발목표(Millennium Development Goals) 실현될 수 있을까?



▲ 새천년개발목표(Millennium Development Goals) 8가지

2000년 9월 뉴욕 UN 본부에서는 각국 정상들이 모여 지구촌 빈곤 퇴치를 위한 여덟 가지 목표를 선정하며 2015년까지 해결하기로 결의하고 UN 새천년개발목표(MDGs, Millennium Development Goals)를 발표했습니다. MDGs은 그 힘차고 거대한 약속을 내건지 10년이 되었지만 아직 그 목표에 다다르지 못하고 있습니다. 처음 UN 새천년개발목표를 내걸 당시 각국의 정치 지도자들과 제프리 삭스를 비롯한 많은 NGO들은 지구라는 별에 맹목한 12억 인구에게 새로운 미래를 선사할 수 있음을 낙관했습니다. 하지만 2010년 9월의 시점에서 다시금 MDG의 목표인 8개 항목에 대한 평가가 누스로 부각하고 있습니다.



Post-MDGs, SDGs : Sustainable Development Goals

Post-2015 의제를 위한 최우선 변화과제

절대빈곤 퇴치 (Leave No One Behind)

지속가능한 개발의 중점화
(Put Sustainable Development at the Core)

일자리 창출과 포용적 성장을 위한 경제구조 변화
(Transform Economies for Jobs and Inclusive Growth)

평화구축 및 효과적이고 투명하며
책임있는 국가제도 구축
(Build Peace and Effective, Open and Accountable
Public Institutions)

새로운 글로벌 파트너십 구축
(Forge a New Global Partnership)

ILLUSTRATIVE GOALS AND TARGETS



1. End Poverty



2. Empower Girls and Women and Achieve Gender Equality



3. Provide Quality Education and Lifelong Learning



4. Ensure Healthy Lives



5. Ensure Food Security and Good Nutrition



6. Achieve Universal Access to Water and Sanitation



7. Secure Sustainable Energy



8. Create Jobs, Sustainable Livelihoods, and Equitable Growth



9. Manage Natural Resource Assets Sustainably



10. Ensure Good Governance and Effective Institutions



11. Ensure Stable and Peaceful Societies



12. Create a Global Enabling Environment & Catalyse Long-Term Finance

Past 25 years

- Remarkable gains in global health

But

1. Progress has not been uniform
2. Mortality and morbidity from common conditions needing surgery ↑
 - Especially in world's poorest regions
 - appendicitis, hernia, fractures, obstructed labour, congenital anomalies, and breast and cervical cancer
3. development of safe, essential, life-saving surgical and anaesthesia care in low-income and middle-income countries (LMICs) has stagnated or regressed

11% of global disease burden
can be treated with surgery

234 million
surgeries world
wide



2 billion have **no**
basic access to
surgical care

only **3.5%** are done
in low income
countries

90% injury deaths
occur in low income
countries

Issues

1. Commonly held **dogma** : surgery expensive and **not cost effective**
2. Requires trained personnel
3. **Perception** : surgery is **not a basic need**

Truth: Surgery is Cost Effective

- Public health uses the DALY (disability adjusted life year) to assess disease burden.
- One DALY = one lost year of "healthy" life.

Intervention	Cost-Effectiveness
Oral rehydration for diarrhea	US\$35/DALY averted
Measles vaccination	US\$5/DALY averted
Basic surgical services	US\$11–US\$33/DALY averted
Antiretroviral therapy for HIV	US\$300–US\$500/DALY averted
Condom promotion/distribution	US\$19 - US\$205/DALY averted

LMICs

1. Cancer ↑
2. road traffic injuries ↑
3. Cardiovascular ↑
4. metabolic diseases ↑

→ Surgical services will continue to rise substantially until 2030

Reduction of death and disability

★ access to surgical and anaesthesia care

1. available

2. affordable

3. timely

4. safe

- to ensure good coverage, uptake, and outcomes

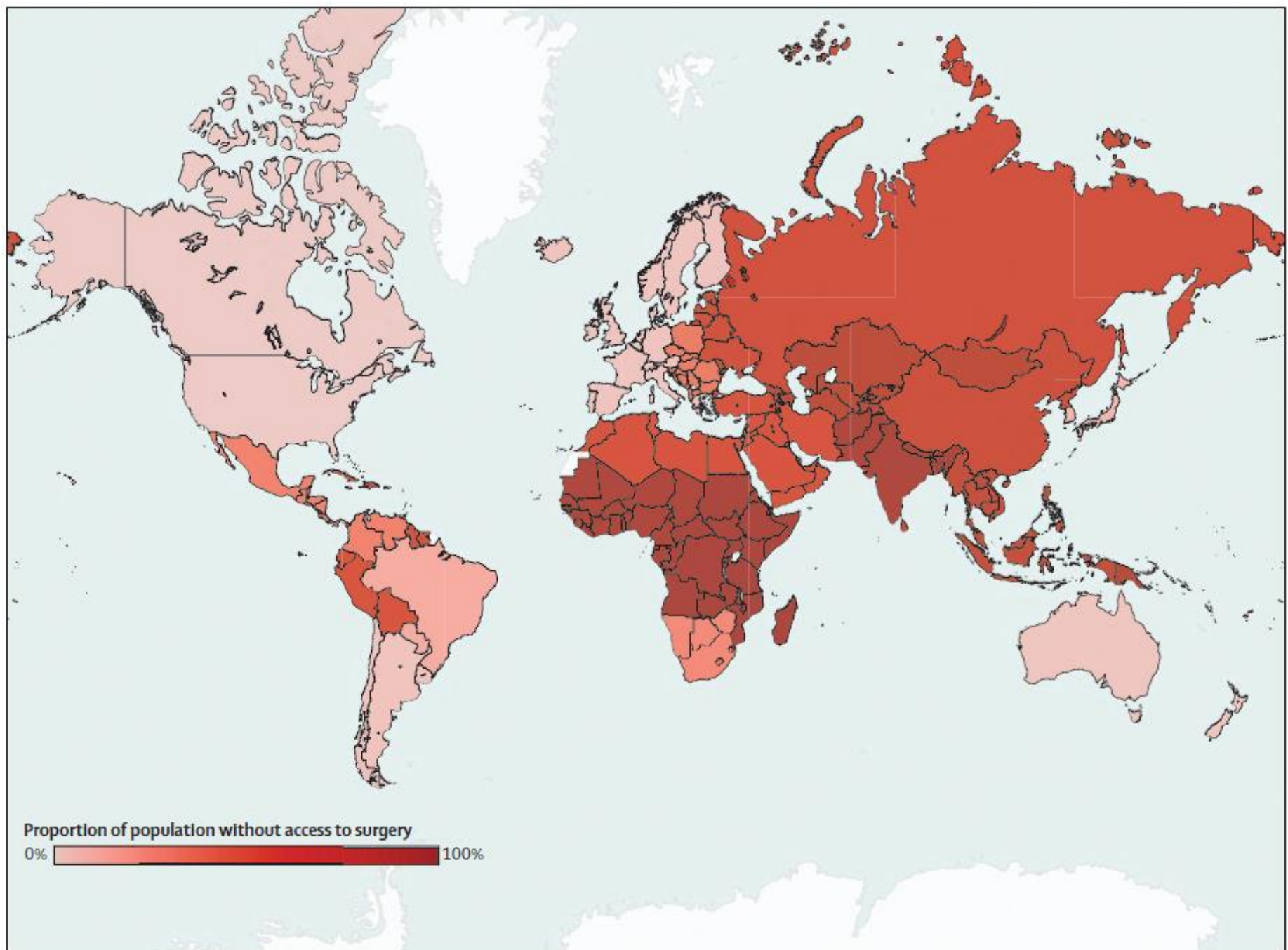


Figure 2: Proportion of the population without access to safe, affordable surgery and anaesthesia by Institute for Health Metrics and Evaluation region (selective tree)^{25,29}

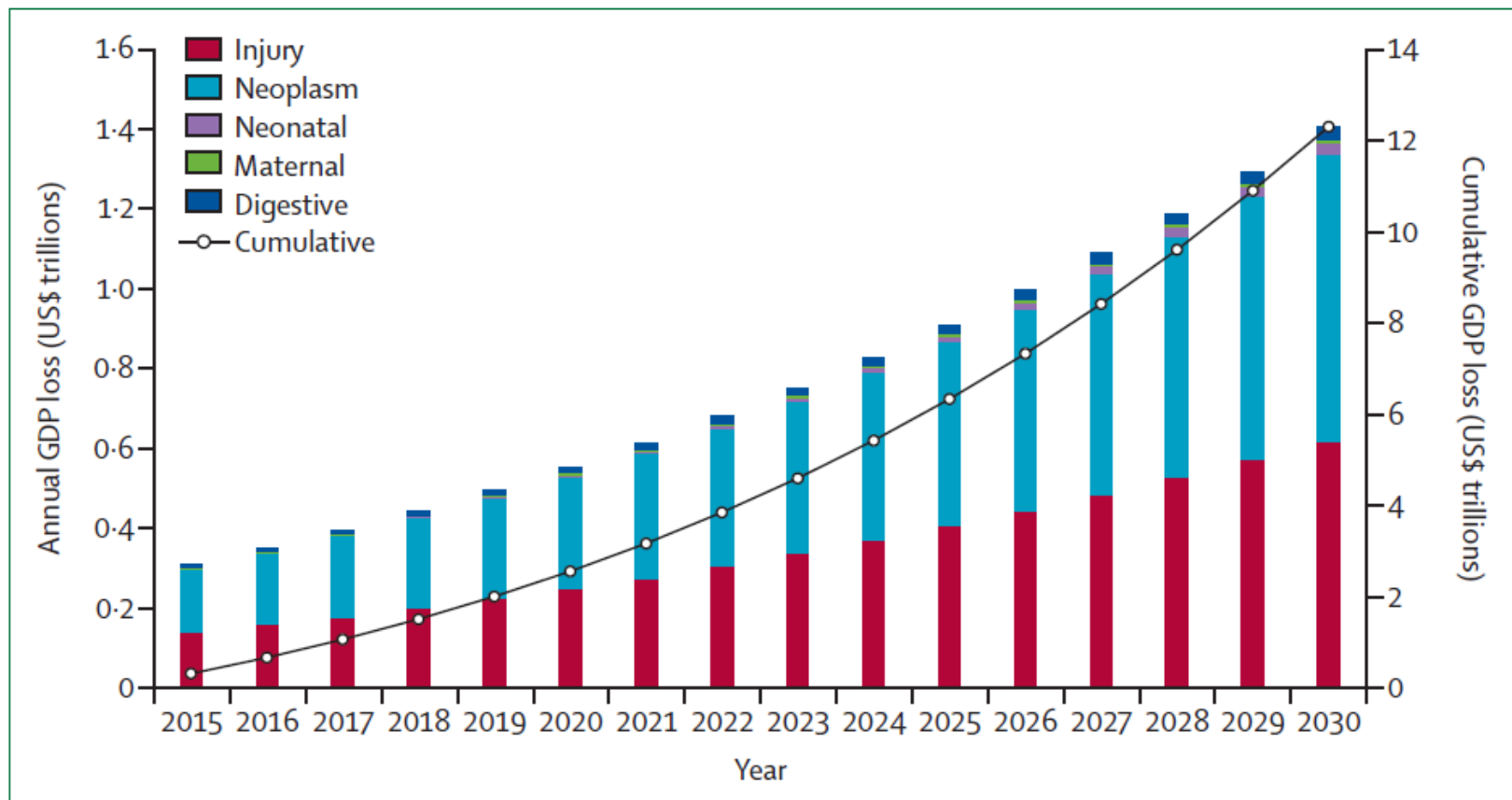


Figure 4: Annual and cumulative GDP lost in low-income and middle-income countries from five categories of surgical conditions (2010 US\$, purchasing power parity)⁵⁷
 Data are based on WHO's Projecting the Economic Cost of Ill-Health (EPIC) model (2010 US\$, purchasing power parity). GDP=gross domestic product.

In 2010

- lost from conditions needing surgical care
: 16.9 million (32.9% of all deaths worldwide)
- Each year, at least 77.2 million DALYs by basic, life-saving surgical care

➤ Death

- | | |
|-----------------|--------------|
| 1. HIV/AIDS | 1.46 million |
| 2. tuberculosis | 1.20 million |
| 3. Malaria | 1.17 million |

DALYs : disability-adjusted life-years

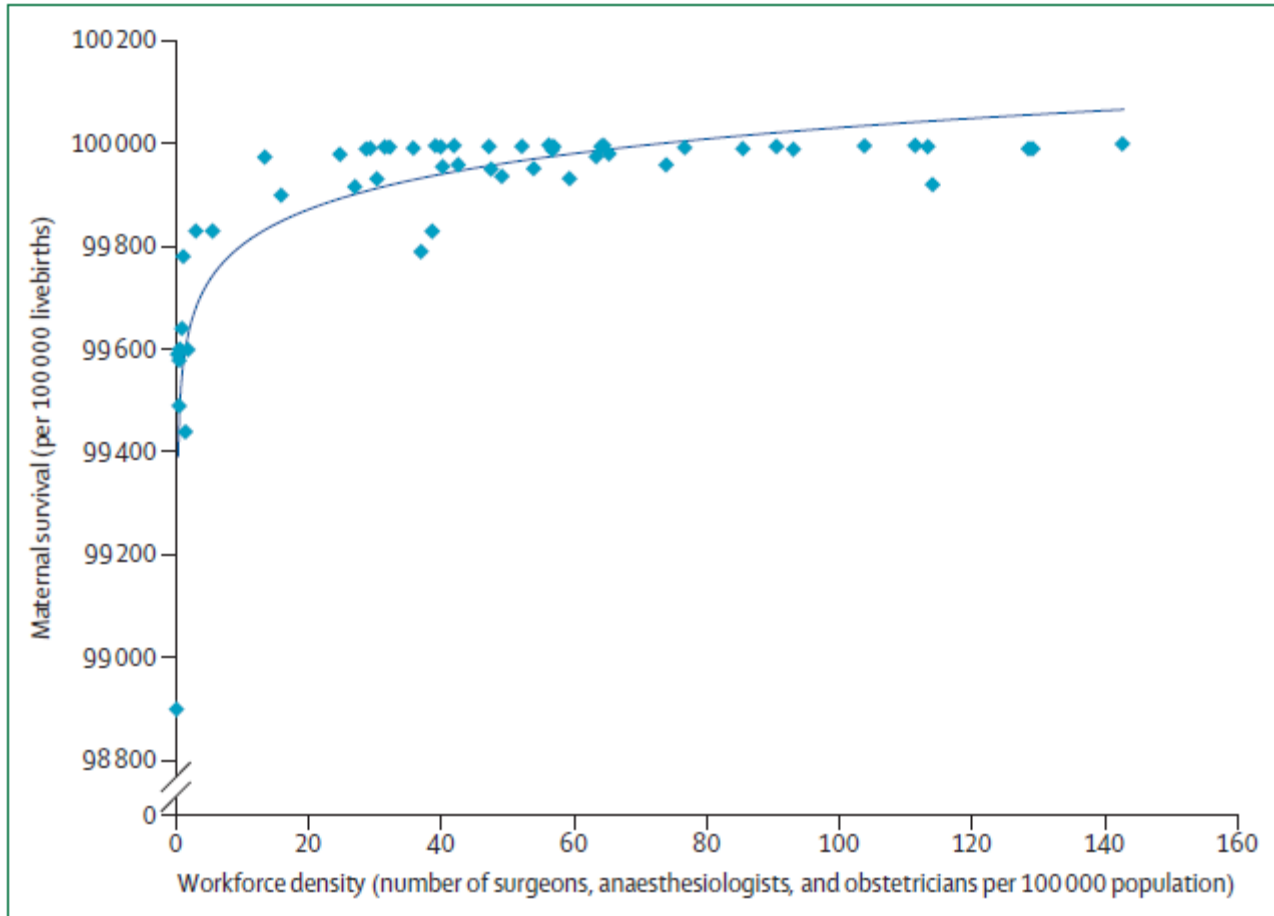


Figure 9: Specialist surgical workforce density and maternal survival¹⁴⁸

A surgical workforce density of less than 20 per 100 000 specialist surgeons, anaesthesiologists, and obstetricians correlates with lower rates of maternal survival. Maternal survival per 100 000 livebirths = $98.292 \times \ln(\text{workforce density}) + 99.579$.

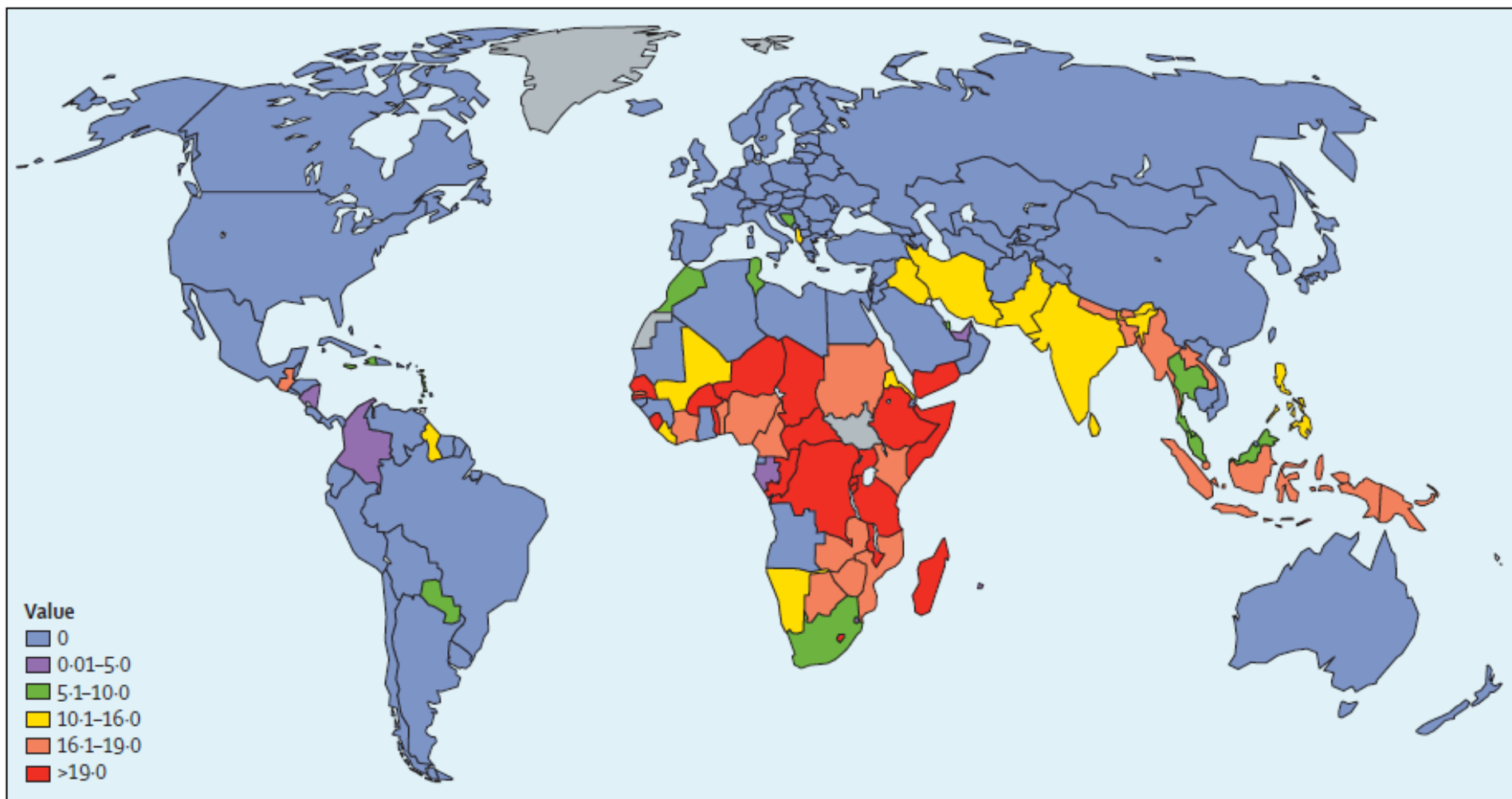


Figure 10: Change in surgical workforce density needed for specialist SAO-only model to meet 20 SAO providers per 100 000 population by 2030¹⁵⁴
 Assumes retirement is at a rate of 1% per year. SAO=surgical, anaesthetic, and obstetric.

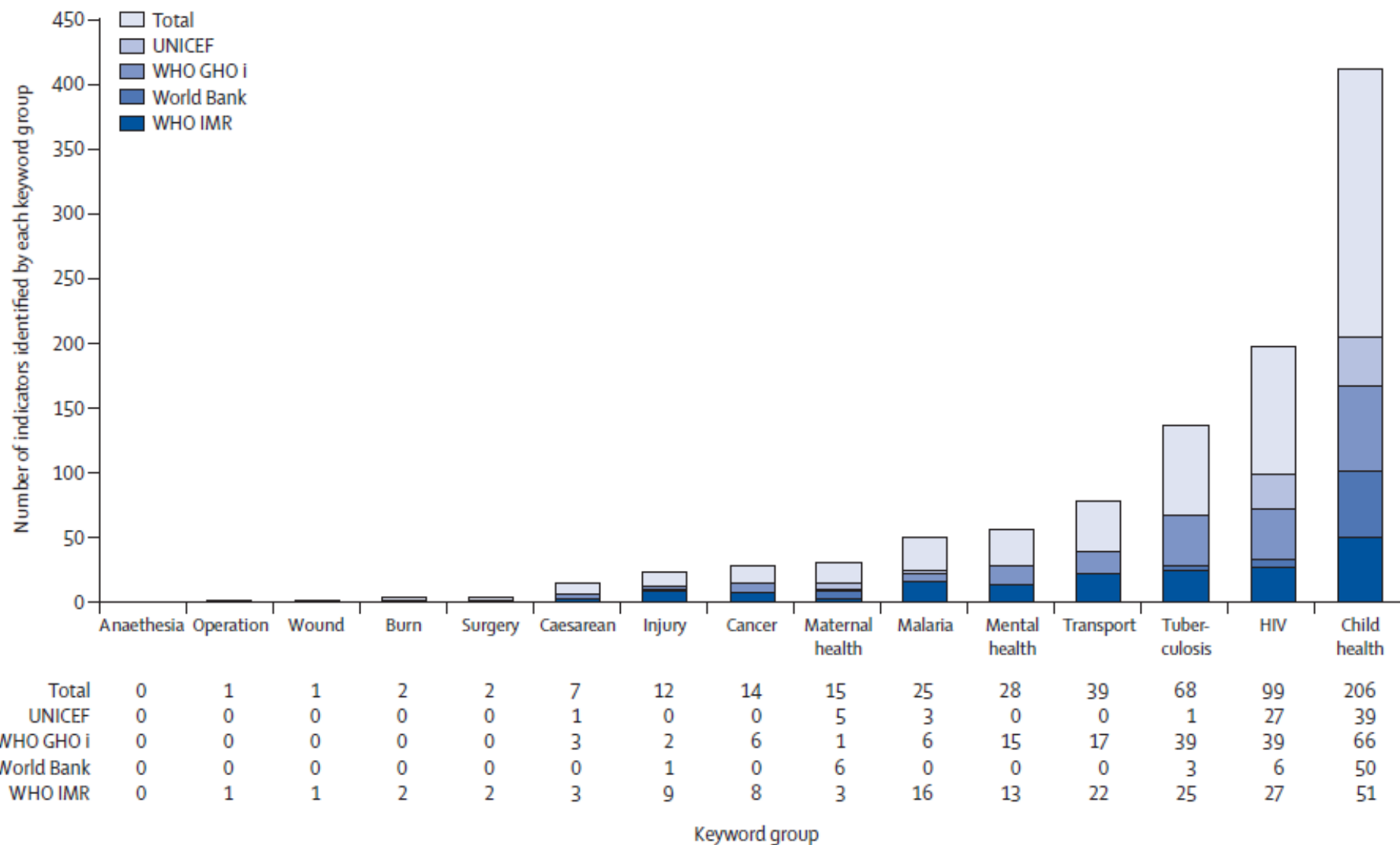


Figure 14: Frequency of select surgical and non-surgical keywords identified in health indicators from global health indicator databases

For each of the keyword groups presented in the figure, the following variations of the terms were identified: Anaesthesia=anaesthesia, anaesthesia; Operation=operat*; Wound=wound; Burn=burn; Surgery=surg*; Caesarean=c-section, caesarean, cesarean; Injury=trauma, fall, accident, injur*; Transport=road, transport; Cancer=cancer, malignancy, tumour, neoplasm; HIV=HIV; Tuberculosis=TB, tuberculosis; Malaria=malaria; Child health=child; Maternal health=maternal; Mental health=mental. WHO GHO i=WHO Global Health Observatory, search by indicator. WHO IMR=WHO Indicators and Measurement Registry. World Bank=World Bank data website. UNICEF=UNICEF data page.

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Emergency and essential surgical care

- Emergency and essential surgical care
- Areas of work
- Strategies
- Global Initiative (GIEESC)
- Education and training
- Partnerships
- Publications

Emergency and Essential Surgical Care Global Database



The WHO Programme for Emergency and Essential Surgical Care (EESC) is dedicated to strengthening health systems, achieving universal health coverage, and ensuring the safety and efficacy of clinical procedures in Anaesthesia, Surgery, Orthopaedics, and Obstetrics.

[WHO Integrated Management for Emergency and Essential Surgical Care Toolkit](#)

[WHO Global Initiative for Emergency and Surgical Care \(GIEESC\)](#)

[WHO Global Database of Surgical Capacity](#)



Challenges to Surgical Care



Injuries



Infectious diseases



Pregnancy-related complications



Cancer and other non-communicable diseases

WHO EESC advocacy video





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events listing

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lancet global surgery commission launch

f t g+ in

Date Monday 27 April 2015

Venue Royal Society of Medicine
1 Wimpole Street
LONDON
W1G 0AE >

Organised by Global Health, [The Lancet](#)

Accreditation n/a



about this event

Registration update

Please note this event is now fully booked, we are operating a waiting list and interested delegates will be contacted on a first come first served basis. Please contact the [Global Health Team](#) to add your name to the waiting list.

Live Stream

This event will be live streamed. To view please go to: <https://event.webcasts.com/starthere.jsp?ei=1062151>

Millions of people lack access to timely, affordable, surgical care, but until recently, surgery has been a neglected area in most global health discussions.

In January, 2014, the Lancet Commission on Global Surgery convened a team of academics, clinicians, economists, and people who work in government, multilateral governmental organisations, and non-governmental organisations to discuss how to ensure that from 2015 onwards surgery is no longer neglected. This meeting will present and debate the results of these discussions.

New estimates of the numbers of people who lack access to surgery and the effects of this on individuals and economies will be presented. In addition the meeting will outline how investment in surgical services can benefit countries' economies and result in health system's strengthening and be crucial for universal health coverage, and how to achieve an improvement in access to surgical services by looking at four

login

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register for this event

• The event is now fully booked

• Please contact the Co-ordinator to be added to the waiting list

rates

View rates for all membership types:

[View rates >](#)

organiser's details

For information on this event, contact [Lalitha Bhagavatheeswaran](#)
Tel: 02072903904
Email: globalhealth@rsm.ac.uk >

Lancet Commission on Global Surgery

- 5 key messages (1) -

- 5 billion people do not have access to safe, affordable surgical and anaesthesia care when needed.
- Access is worst in low-income and lower-middle-income countries, where 9 of 10 people cannot access basic surgical care.

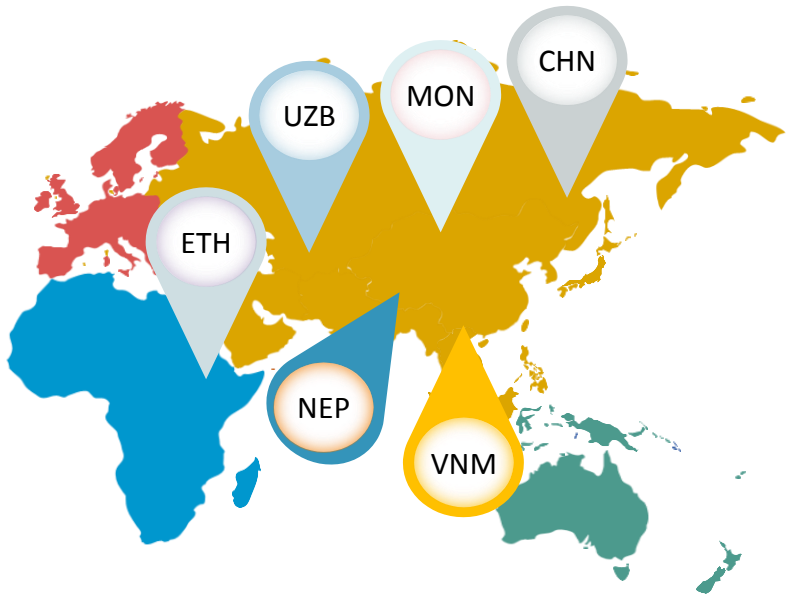
Lancet Commission on Global Surgery

- Jim Kim, President of the World Bank, at the opening meeting

“surgery is an indivisible, indispensable part of health care and can help millions of people lead healthier, more productive lives”

의료취약국가 심장수술 역량강화 프로그램

- 현지연수 및 한국 초청연수



1999 Harbin 1st Visit as Consultant







2012. 4. New Building

Department of Thoracic and Cardiovascular Surgery



Harbin Children's Hospital



2010 Viet Nam : WHO consultant for Pediatric Heart Surgery Program





UZBEKISTAN



Uzbekistan



2009 UZBEKISTAN Medical Camp (고려인 대상)







Sustaining Program













NORMAL SALINE
20ml 150병
출생리식염수
20ml 150병

HEARING

Medical equipment labels and text, including a pulse oximeter and other devices.





Training Doctor



Name : Narimoon Islamove

Training Period : 2011.4 ~ 2012.4

His letter from Korea SNUH

Good having many friends and co-workers. At first time, I have some trouble adjusting Korean food, but now it's Okay

Training in the SNUH is very good opportunity and valuable experience for me. After coming back to Uzbekistan, I would like to manage to hard case surgery for myself.

Come and join me !!!

파일 홈 보내기/받기 폴더 보기

새 전자 메일 새 항목 정렬 삭제 무시 회신 전제 회신 전달 모임 이동 위치? 관리자에게 전달 팀 전자 메일 회신하고 삭제 완료 새로 만들기 이동 규칙 OneNote 읽지 않음/읽음 범주 추가 작업 연락처 찾기 주소록 전자 메일 필터링 모든 폴더 보내기/받기 보내기/받기

- 즐거찾기
 - 받은 편지함 (501)
 - 지운 편지함 (5)
 - 보낸 편지함
- 개인 폴더
 - 받은 편지함 (501)
 - 임시 보관함
 - 보낸 편지함
 - 지운 편지함 (5)
 - 검색 폴더
 - 보낸 편지함
 - 정크 메일 [15]
 - RSS 피드
 - 보관 폴더

- 받은 편지함
- 빠른 검색을 사용하려면 여기를 클릭하십시오.
- 정렬 기준...
- A
 - A
 - N
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 - 출
 - 0.
 - A

Received from Tashkent
 Narimon Isomov <narimon_83@mail.ru>
 추가 작업. 시작 날짜: 2013년 6월 25일 화요일. 기한: 2013년 6월 25일 화요일.
 2013-06-25 오후 9:46에 이 메시지를 전달했습니다.

빨간색 범주
 보낸 날짜: 2013-06-20 (목) 오전 12:09
 받는 사람: 김웅한

Dear Professor Kim Woong-Han
 I want to say thanks to you, for everything that you did for us. All patients was discharged in good state. Also I did one BCPS for patients with TV atresia, single ventricle, PS, ASD 14mm, restrictive VSD 7mm. Post Op CVP was 14. I need your advises about another patient. 10 month old baby with MV atresia, ASD 10mm, single ventricle(RV type), TGA, mild TR (2 grade) and PS with pressure gradient 61mmHg. Saturation - 65%. What do you suggest for this patient. Pulsatile BCPS or BCPS. Thank you in advance.

With best regards.
 Narimon Islamov

'Narimon Isomov'
 이 보기에 대한 검색 결과를 반환할 수 없습니다. 자세한 내용을 보려면 여기를 클릭하십시오.
 이 보기에 표시할 항목이 없습니다.

2013년 10월

일	월	화	수	목	금	토
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

화요일
 10월 임상고수간담회
 오후 12:00 - 오후 1:00

수요일
 라파엘 조수현 선생님
 오후 6:00 - 오후 8:00
 이레 한식당(02-743-38:)

목요일
 Singapore

- 정렬 기준: 플래그: ...
- 새 작업 입력
- 오늘
- 김웅한 교수님...
 - RE: 김웅한 교...
 - [2nd sending]...
 - Children's He...
 - 이사회(10/14...
 - Intervention ...
 - Decision for ...
 - 응급 봉사 참...
 - 김웅한 교수님...
 - CARVAR 관련...
 - 감성센터에서 ...
 - Vietnam Meet...
 - Submission C...
 - Invitation to p...
 - 이종욱글로벌...
 - Dr.Ariunaa
 - 해명산 사진

Greeting from Tashkent

Narimon Islomov narimon_83@mail.ru

보낸 날짜: 2013-06-20 (목) 오전 12:09

받는 사람: 김웅한

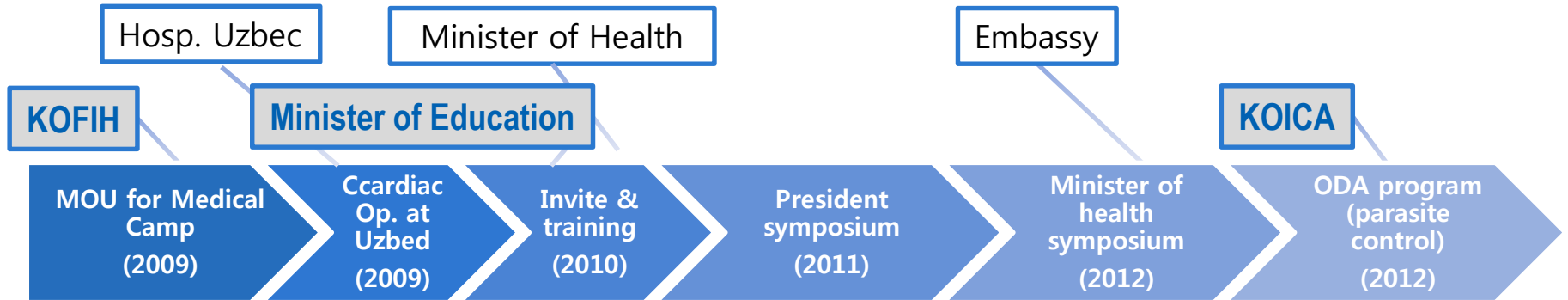
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With best regards.

Narimon Islamov

Medical Support Model – Uzbekistan



Confidence
(Korea, SNUH)



Personal
Confidence



Person
Train & Education



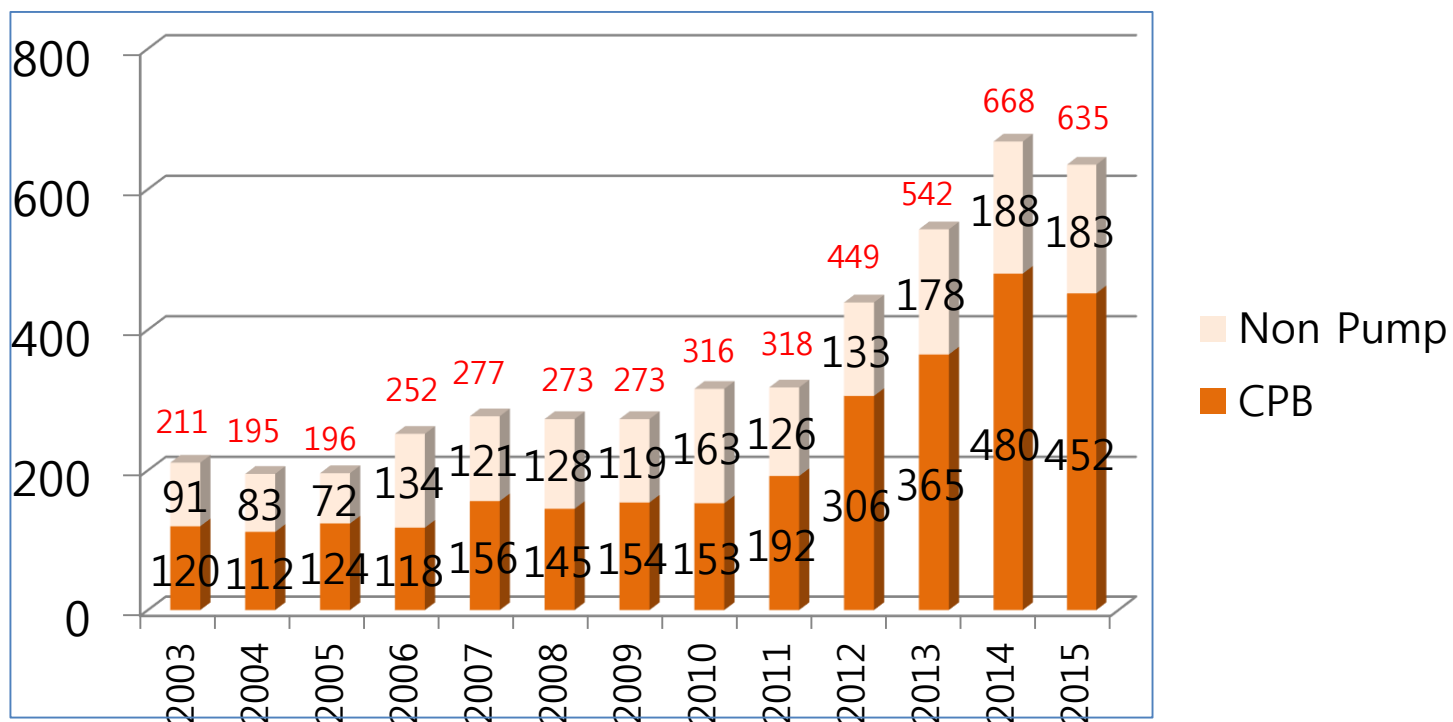
National Academic
Communication



National Health &
Disease Program



Pediatric Cardiac Operation Counts of Tashkent Pediatric Medical Institute





선천성 심장질환 현황

2006년 기준, 약 22,499 명

인구대비 의료인력 비율

- 인구 만 명 대비 의사 0.22명 (2010)
- 인구 만 명 대비 간호사/조산사 2.36명 (2010)
- 인구 십만 명 대비 수술전문인력 0.54명 (2016)



교육

- 정부차원의 의과대학 졸업생 증대
- 새로운 의과대학 교육과정 개발
- 교육 담당 faculty development 부재

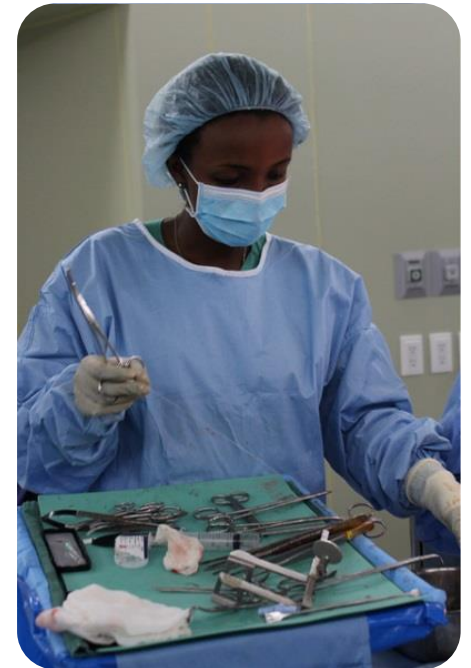
경험 부족 및 취약한 의료시스템

- 부족한 인적·물적자원
- 해외 수술팀이 방문 시에만 수술 가능
- 현지 의료진 자력수술 경험 부족

물품 패키징, 운송



2015년



2016

에티오피아 아디스아바바의과대학병원(TASH)



2017









Nepal





2013. 8. Donation for cardiac operation

(서울특별시, 서울의료원, 라파엘인터내셔널, 서울의대)

Invite & education of team

(surgeon, cardiology, anesthesia, perfusionist, nurses for ICU & OR)



2016. 11. Nepal International Cardiac Symposium



2015. 7.
Cardiac Operation by Nepalese



2012 Mongolia



2013. 11. 몽골의 선천성 심장병 수술 역량 강화를 위한 한국의료팀



몽골, 울란바토르에서



Visit & Follow-up of Foreign country ; Mongolia



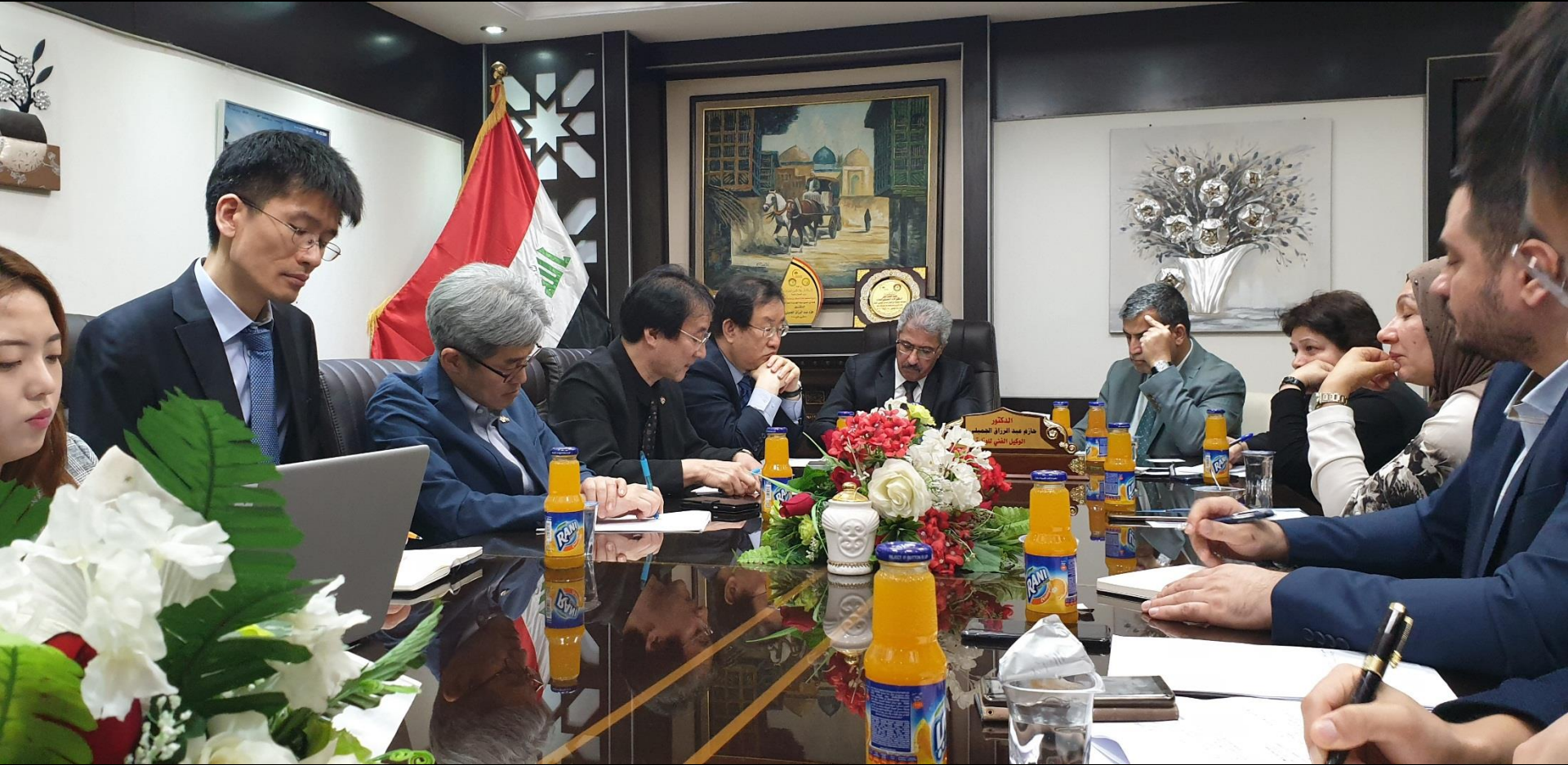
“Education is the most powerful weapon which you can use to change the world.”

- Nelson Mandela









مركز الناصرية للقلب
Nasiriyah Heart Center

مركز الناصرية للقلب







Because we
are unable
to help such
cases, we
want you to
help us



Not 'for'
but 'With'

Thank you !!!



“Education is the most powerful weapon which you can use to change the world.”

- Nelson Mandela

