GLOBAL HEALTH PARTNERSHIPS

INNOVATIONS IN SURGERY, EDUCATION & RESEARCH

21st & 22nd APRIL 2016, RCSI, DUBLIN, IRELAND

CPD ACCREDITATION
Thursday 21st April 2016 = **6** CPD Credits
Friday 22nd April 2016 = **3.5** CPD Credits

RCSI

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WELCOME

Here in Ireland, the period from 2012 to 2022 has been designated as a Decade of Centenaries, as we recollect seminal events, including the 1913 Lockout, World War I, the 1916 Easter Rising and the War of Independence. Over the past several months, the College has hosted a number of diverse and successful events, which commemorated the role of Irish doctors in World War I and, just recently, an exhibition and lecture series entitled: Surgeons and Insurgents, which highlighted the role of the Royal College of Surgeons in Ireland and its surgeons in Easter 1916. These have, rightly, looked back at events of the past, but in this most historical centenary year, we believed it appropriate to also host an event, which would look to the future. From our perspective, what could be more appropriate and timely than to look to the future of global health and, in particular, global surgery. The past eighteen months have been momentous, with the adoption of the UN Sustainable Development Goals, the publication of the Lancet Commission on Global Surgery and the unanimous adoption of World Health Assembly Resolution, WHA 68/31: Strengthening Emergency and Essential Surgical Care and Anaesthesia as a Component of Universal Health Coverage. All of these have combined to make now a propitious time for the advancement of global health and for improving the lot of the neglected surgical patient.

We are honoured that, in compiling our program for this meeting, we were able to attract so many eminent speakers, who have made fundamental contributions to this cause and we are most grateful to them for their attendance and participation.

The meeting combines authoritative overviews in the plenary sessions with real-life examples of functioning partnerships-in-practice in the parallel sessions and we hope that everyone finds it stimulating and worthwhile.

We acknowledge the help of Irish Aid, our long-term partners in our collaboration with COSECSA, as well as our colleagues in the Global Health Workforce Alliance, Esther Ireland and the Irish Forum for Global Health.

I wish to thank the Conference Committee of James Geraghty, Ruairi Brugha, Avril Hutch, Samuel Mc Conkey, Eric O' Flynn, Sean Tierney, David Weakliam and Aoife Congdon for all their efforts in putting the programme together.

Finally, I wish you all a most successful engagement with your colleagues, old and new, over the next two days and wish you an enjoyable time in Dublin.

Declan J. Magee, MB DCH FRCSI
President RCSI

PROGRAMME AT A GLANCE

THURSDAY 21st APRIL 2016

08.00	Registration	Front Hall (York Street)
09.00	Welcome & Introduction to RCSI	
09.10	An Overview of Global Health	
10.30	Refreshments	College Hall
11.00	**PARALLEL SESSION 1** 1. Trauma and Emergency Care 2. Developing a Productive and Effective Health Work Force 3. North-South Partnerships for Capacity Building 4. Maternal, Newborn and Child Health	 Tutorail Room 8 Tutorial Room 4 Tutorial Room 2,3 Tutorial Room 1
12.30	Lunch	College Hall
13.30	**KEYNOTE ADDRESS:** Professor Francis Omaswa, Executive Director of the African Centre for Global Health and Social Transformation and Former Director General, Uganda Health Services	
14.15	In Global Healthcare - Research & Policy	
15.35	Refreshments	College Hall
16.00	**PARALLEL SESSION 2** 1. Non-Physician Clinician Surgery 2. Health System Approaches to Better Healthcare 3. Access to Quality Cleft Surgery Services 4. Addressing Health Needs at the Community Level	 Tutorail Room 4 Tutorial Room 2,3 Tutorial Room 1 Tutorial Room 8
18.00	**HONORARY FELLOWSHIP CONFERRING:** Professor Krikor Erzingatsian Professor Francis Omaswa	College Hall
18.30	Honorary Fellowship Conferring Drinks Reception	Boardroom

FRIDAY 22nd APRIL 2016

08.00	Registration	Front Hall (York Street)
09.00	Innovations in Global Healthcare – Education and Technology	
10.15	Refreshments	College Hall
10.45	**PARALLEL SESSION 3** 1. Training in Surgery 2. Improving Quality of Clinical Care 3. Global Partnerships for Health 4. Research and Technology to Inform Practice and Policy	 Tutorail Room 8 Tutorial Room 1 Tutorial Room 2,3 Tutorial Room 4
12.15	Keynote Address: Lord Nigel Crisp, House of Lords Co-Chair, All Party Parliamentary Group on Global Health	
13.00	Lunch	College Hall
14.00	Close	

Please ensure you sign in each day to receive all CPD credits for the conference. CPD credits cannot be awarded without a signature.

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THURSDAY 21st APRIL 2016

08.00	Registration
09.00 – 09.10	Welcome & Introduction to RCSI Professor Cathal Kelly, Chief Executive/Registrar, RCSI

AN OVERVIEW OF GLOBAL HEALTH

Co-Chairs	Dr Miliard Derbew, President, College of Surgeons of East, Central and Southern Africa (COSECSA) Professor Sean Tierney, Dean of Professional Development & Practice, RCSI
09.10 - 09.25	**PARTNERSHIPS FOR SUCCESS - NOW IS THEIR TIME** Mr Declan J. Magee, MB DCH FRCSI President, Royal College of Surgeons in Ireland, RCSI
09.25 - 09.50	**MINISTER OF STATE FOR DEVELOPMENT**
09.50 - 10.10	**WORKFORCE 2030: THE WHO GLOBAL STRATEGY AND THE HIGH-LEVEL COMMISSION ON HEALTH EMPLOYMENT & ECONOMIC GROWTH** Mr James Campbell, Director, Health Workforce, World Health Organization (WHO) & Executive Director, Global Health Workforce Alliance (GHWA)
10.10 - 10.30	Discussion
10.30	Refreshment Break

PARALLEL SESSION 1:
TRAUMA AND EMERGENCY CARE - TUTORIAL ROOM 8

Chair	Mr Ken Mealy, Consultant General Surgeon, Wexford General Hospital Council Member, RCSI
11.00 – 11.15	**GLOBAL EMERGENCY CARE SKILLS (1.1)** O'Sullivan, J Global Emergency Care Skills- GECS
11.15 – 11.30	**THE ROLE OF TRAUMA REGISTRIES IN THE DEVELOPING WORLD: A CASE STUDY IN MBARARA, UGANDA (1.2)** Webb, S University of Bristol
11.30 – 11.45	**TEACHING THE MANAGEMENT OF UROLOGICAL EMERGENCIES THROUGH A SHORT COURSE TO SURGICAL RESIDENTS IN EAST/CENTRAL AFRICA DELIVERS EXCELLENT EDUCATIONAL OUTCOMES (1.3)** Campain, NJ [1], Lane, R [2], Spasojevic, N [3], Dreyer, J [4] , Venn, S [5], Biyani, CS [6] Urolink, British Association of Urological Surgeons, UK [1], ASGBI, UK [2], University Teaching Hospital, Lusaka, Zambia [3], NHS Dumfries & Galloway, UK [4], Western Sussex Hospitals NHS Foundation Trust, UK [5] , Leeds Teaching Hospitals, UK [6]
11.45 – 12.00	**PREDICTORS OF DELAY IN PRESENTATION FOR TRAUMA CONDITIONS AT THREE RURAL DISTRICT HOSPITALS IN RWANDA (1.4)** Toma, G [1,2], Nkurunziza, T [1], Maine, R [2,3], Riviello, R[2,4,5], Odhiambo, J [1], Mpunga T [6], Habiyakare, C [6], Nkikabahizi, F [6], Ntakiyiruta, G [5,6], Hedt-Gauthier, B.L [1,2] Partners in Health - Inshuti Mu Buzima, Kigali, Rwanda [1], Department of Global Health and Social Medicine, Harvard Medical School, Boston, USA [2], Department of Surgery, University of California, San Francisco, USA [3], Brigham and Women's Hospital, Boston, USA [4] , University Teaching Hospital, Kigali, Rwanda [5], Ministry of Health, Kigali, Rwanda [6]
12.00 – 12.30	Discussion

PARALLEL SESSION 2: DEVELOPING A PRODUCTIVE AND EFFECTIVE HEALTH WORK FORCE - TUTORIAL ROOM 4

Chair	Professor Kevin McGuigan, Assoc. Professor of Medical Physics, RCSI
11.00 – 11.15	**ATTITUDES AND BELIEFS OF HEALTH PROFESSIONALS TOWARDS HEALTH LITERACY IN UGANDA (2.1)** Gilmartin B [1], McKeever B [1], Parker R [1], Garrett S [2,3], O'Reilly C [1], Burke S [3], Spillman I [4] , Atwongyeire N [4], Batringaya A [4], O'Sullivan C [1,3] UCD School of Public Health, Physiotherapy and Sport Science, University College Dublin, Dublin [1], St James Hospital, James Street, Dublin [2] , University College Dublin Volunteers Overseas, Belfield, Dublin [3] , Church of Uganda Kisiizi Hospital, Kisiizi, Uganda [4]
11.15 – 11.30	**RETENTION OF SURGERY GRADUATES IN EAST, CENTRAL AND SOUTHERN AFRICA (2.2)** Hutch, A [1], O'Flynn, E [1], Derbew M [2], Jani P [2], Tierney S [3], Mkandawire N [2], Erzingatsian K [2] Royal College of Surgeons in Ireland / College of Surgeons of East, Central and Southern Africa Collaboration Programme (RCSI/COSECSA) [1], College of Surgeons of East, Central and Southern Africa (COSECSA) [2] , Department of Surgical Affairs, Royal College of Surgeons in Ireland (RCSI) [3]
11.30 – 11.45	**A SYSTEMATIC REVIEW AND ANALYSIS OF SURGICAL RESEARCH PUBLICATIONS FROM TEN AFRICAN COUNTRIES 2008-2014 (2.3)** O Donohoe, N [1], Reilly, J [2], Sweeney, P [2], Odubu Fualal, J [3], Tierney, S [1] RCSI-COSECSA Collaboration [1], Faculty of Medicine, University College Dublin [2], Mulago Hospital, Kampala, Uganda [3]
11.45 – 12.00	**THE SPECIALIST SURGEON WORKFORCE IN EAST, CENTRAL AND SOUTHERN AFRICA: A SITUATION ANALYSIS (2.4)** O'Flynn, E[1], Andrew, J[2], Hutch A[1], Kelly, C[4], Jani, P[2], Kakande, I[2], Derbew, M[2], Tierney, S[3], Mkandawire, N[2], Erzingatsian, K[2] Royal College of Surgeons in Ireland / College of Surgeons of East, Central and Southern Africa Collaboration Programme (RCSI/COSECSA) [1] , College of Surgeons of East, Central and Southern Africa (COSECSA) [2] , Department of Surgical Affairs, Royal College of Surgeons in Ireland (RCSI) [3], Emory University School of Medicine 4
12.00 – 12.30	Discussion

PARALLEL SESSION 3: NORTH-SOUTH PARTNERSHIPS FOR CAPACITY BUILDING - TUTORIAL ROOM 2,3

Chair	Professor Ciaran O'Boyle, Director, Institute of Leadership, RCSI
11.00 – 11.15	**GLOBAL HEALTH PARTNERSHIPS: SUDAN DIASPORA CASE STUDY (3.1)** AbuAgla, A , Badr, E , Abdalla, F Sudan Medical Specialization Board, Sudan
11.15 – 11.30	**EQUALS PARTNERSHIP ZAMBIA – IRELAND (3.2)** Bergin K [1], Chikamata D [2], Hayden E [3], Murray F [4], Mukonka V [5] , Lupasha M [6], Njelesani E [7], O'Donovan D [8] , Weakliam D [9] Coombe Women and Infants University Hospital, Ireland [1], Ministry of Health, Zambia [2], National Maternity Hospital, Ireland [3], Royal College of Physicians of Ireland, Ireland [4], Copperbelt University School of Medicine, Zambia [5], Ministry of Health, Zambia [6] , Lusaka Apex Medical University, Zambia [7] , National University of Ireland Galway [8], Health Service Executive, Ireland [9]
11.30 – 11.45	**PUBLIC-PRIVATE PARTNERSHIPS FOR GLOBAL HEALTH: WHAT IS THE EVIDENCE? (3.3)** Bijlmakers L Radboud University Medical Centre, Nijmegen, The Netherlands

THURSDAY 21st APRIL 2016

11.45 – 12.00 **CREATING A SUSTAINABLE EYE CARE MODEL FOR AFRICA, TEN YEARS' EXPERIENCE (3.4)**
Coleman, K.
Founder, Right to Sight International

12:00 – 12.30 Discussion

PARALLEL SESSION 4: MATERNAL, NEWBORN AND CHILD HEALTH - TUTORIAL ROOM 1

Chair: Ms Bridget Egan, Consultant Vascular Surgeon, Tallaght Hospital, Dublin
Council Member, RCSI

11.00 – 11.15 **SKILLS RETENTION IN SUDANESES VILLAGE MIDWIVES ONE YEAR FOLLOWING HELPING BABIES BREATHE TRAINING (4.1)**
Mac Ginneá, F [1], Arabi, A ME [2], Ibrahim, S A [2], Ahmed, S E [1], Hawkes, G [1], Dempsey, E [1]
Ryan, C. A [1]
Department of Paediatrics and Child Health, Cork University Hospital, Cork, Ireland [1],
Department of Paediatrics and Child Health, Faculty of Medicine, University of Khartoum, Sudan [2]

11.15 – 11.30 **BETWEEN A ROCK AND A HARD PLACE; THE CHALLENGES AND RESPONSES OF FORMAL AND INFORMAL HEALTH WORKERS IN COMMUNITIES AND HEALTH FACILITIES IN MALAWI, FROM THE COSYST-MNCH PROJECT (4.2)**
Matthews, A [1] , Byrne, E [2], Walsh, A [2] , Mwale, D [3], Manda-Taylor, L [3], Phyriee, T [3] ,
Mwapasa, V [3] , Weiss, J [4] , Brugha, R [2]
Dublin City University, Dublin [1], Royal College of Surgeons in Ireland, Dublin [2],
College of Medicine, University of Malawi [3], Concern Worldwide [4]

11.30 – 11.45 **COMMUNITY LEADERSHIP FOR MATERNAL, NEWBORN AND CHILD HEALTH IN MALAWI (4.3)**
Walsh, A[1] , Byrne, E [1] , Matthews, A [2] , Mwale, D [3] , Manda-Taylor, L [3] , Phyriee, T [3],
Mwapasa, V [3] , Weiss, J [4] , Brugha, R [1]
Royal College of Surgeons in Ireland, Dublin [1], Dublin City University, Dublin [2],
College of Medicine, University of Malawi [3], Concern Worldwide, [4]

11.45 – 12.00 **THE EFFECTIVENESS OF A REHABILITATION AND EDUCATIONAL INTERVENTION ON CHILDREN WITH DISABILITIES AND THEIR GUARDIANS IN A PRIMARY HEALTH CENTRE IN URBAN UGANDA – A PILOT STUDY (4.4)**
O' Rourke C [1], Griffin E [1], Ni Dhonnabhain A [1], Owens M [2], Asiimwe E, Klene M [3] , O'Sullivan C1,[4]
UCD School of Public Health, Physiotherapy and Sports Science, University College Dublin,
Dublin [1], Midlands Regional Hospital, Mullingar, Co Westmeath [2] , Nurture Africa,
Uganda [3], University College Dublin Volunteers Overseas [4]

12.00 – 12.30 Discussion

12.30 Lunch

13.30 **KEYNOTE ADDRESS**

OWNERSHIP AND LEADERSHIP FOR HEALTH OUTCOMES IN AFRICA
Professor Francis Omaswa
Founding Member and former President of the College of Surgeons of East, Central and Southern Africa (COSECSA).Executive Director of the African Centre for Global Health and Social Transformation.
Former Director General, Uganda Health Services.

Introduced by: Professor Ruairi Brugha
Head, Division of Population Health Sciences, RCSI

IN GLOBAL HEALTHCARE - RESEARCH & POLICY

Co-Chairs	Professor John Hyland, Vice-President, RCSI Professor Nyengo Chiswakhata Mkandawire, Professor of Orthopaedic Surgery and Head of Surgery Department College of Medicine, University of Malawi, Adjunct Professor School of Medicine, Faculty of Health Sciences, Flinders University, Adelaide Australia
14.15 - 14.35	**HOW LMICS CAN SHAPE THE GLOBAL HEALTH POLICY AGENDA** Dr Emmanuel M. Makasa, BSC.HB, MBChB, MMed(Orth), MPH, FCS, Counsellor Health, Permanent Mission of the Republic of Zambia to the United Nations in Geneva and Vienna.
14.35 - 14.55	**TRANSITIONING FROM THE LANCET COMMISSION TO DATA COLLECTION, RESEARCH AND GLOBAL IMPACT** Dr John G. Meara, MD, DMD, MBA, Chair, Lancet Commission on Global Surgery Kletjian Professor of Global Surgery, Director, Program in Global Surgery and Social Change, Harvard Medical School Plastic Surgeon-in-Chief, Boston Children's Hospital
14.55 - 15.15	**PARTNERSHIP FOR PROGRESS IN GLOBAL SURGERY IN OCEANIA (1.0)** Professor David Watters, OBE, FRCSEd, FRACS President, Royal Australasian College of Surgeons
15.15 - 15.35	**BUILDING INSTITUTIONAL CAPACITY IN LMIC HEALTH EDUCATION INSTITUTIONS** Dr Miliard Derbew, President, College of Surgeons of East, Central and Southern Africa (COSECSA)
15.35	Refreshment Break

PARALLEL SESSION 1: NON-PHYSICIAN CLINICIAN SURGERY - TUTORIAL ROOM 4

Chair	Professor Martin Corbally, King Hamad University Hospital, Kingdom of Bahrain
16.00 – 16.15	**NON DOCTOR QUALIFIED EMERGENCY SURGEONS ARE SAVING THOUSANDS OF LIVES IN RURAL ETHIOPIAN HOSPITALS (5.1)** Ghosh, B [1], Gobeze A A [2] Founder of Southern Ethiopia Gwent Healthcare Link, Founder and Former Chair, Wales for Africa Health Links Network [1], Assistant Professor of Surgery and Urology, Hawassa University Referral hospital, Awassa, Ethiopia [2]
16.15 – 16.30	**SCALING UP SURGERY AT THE LEVEL OF DISTRICT HOSPITAL IN RURAL AFRICA; LESSONS FROM THE COST AFRICA PROJECT (5.2)** Gajewski J[1], Mwapasa G[2], Borgstein E[2], Bijlmakers L[3], McCauley TM[1], Cheelo M4, Cornelissen D[3], Kachimba JS[4], Brugha R1 Royal College of Surgeons in Ireland, Dublin [1], College of Medicine, Malawi [2], Radboud University Medical Centre Netherlands [3], Surgical Society of Zambia [4]
16.30 – 16.45	**COST-AFRICA IN ZAMBIA: EVIDENCE OF SAFE SURGERY BY TRAINED AND SUPERVISED MEDICAL LICENTIATES AT THE DISTRICT HOSPITAL (5.3)** McCauley TM[1], Cheelo M[2], Kachimba JS[2], Nthele M[2], Borgstein E[3], Gajewski J[1], Bijlmakers L[4], Mwapasa G[3], Cornelissen D[4], Brugha R[1] Royal College of Surgeons in Ireland, Dublin [1], Surgical Society of Zambia [2], College of Medicine, Malawi [3], Radboud University Medical Centre, Nijmegen, Netherlands [4]
16.45 – 17.00	**COST-AFRICA IN ZAMBIA: MEDICAL LICENTIATES AND THE PROVISION OF SURGERY IN RURAL DISTRICT HOSPITALS (5.4)** Cheelo M[1], McCauley TM[2], Kachimba JS[1], Gajewski J[2], Bijlmakers L[3], Brugha R[2] Surgical Society of Zambia [1], Royal College of Surgeons in Ireland, Dublin [2], Radboud University Medical Centre, Nijmegen, Netherlands [3]
17.00 – 17.30	Discussion

THURSDAY 21st APRIL 2016

PARALLEL SESSION 2:
HEALTH SYSTEM APPROACHES TO BETTER HEALTHCARE - TUTORIAL ROOM 2,3

Chair	Professor Samuel McConkey, Head of Department, International Health & Tropical Medicine, RCSI
16.00 – 16.15	**STRATEGISING WITH A TANZANIAN REFERRAL HOSPITAL: A CONTEXTUAL CHALLENGE (6.1)** de Burca, S, Williams, P St Francis Regional Referral Hospital Ifakara, Tanzania, VSO & HSyRC [1] , University of Limerick [2]
16.15 – 16.30	**THE LINK BETWEEN MANAGEMENT PRACTICES, HEALTH PROFESSIONAL PERFORMANCE AND PATIENT OUTCOMES (6.2)** Petros Gile, P
16.30 – 16.45	**DATA DRIVEN HEALTH SYSTEMS STRENGTHENING REQUIRES CHANGES TO EXISTING CONCEPTUALIZATION OF HEALTH INFORMATION SYSTEMS – LESSONS FROM MALARIA SURVEILLANCE IN THE GAMBIA (6.3)** Anya SE, Palmer A, McConkey SJ Royal College of Surgeons in Ireland, Dublin
16.45 – 17.00	**THE COST OF THE AFFORDABLE MEDICINE FACILITY-MALARIA IN THREE AFRICAN COUNTRIES (6.4)** Cianci F[1], Goodman C[2], Cobos D [3], Tougher S [2], Hanson K[2] Public Health Dept, HSE East, Red brick building, Palmerstown, Dublin [1] , London School of Hygiene and Tropical Medicine, London, UK [2], Swiss Tropical and Public Health Institute, Basel, Switzerland [3]
17.00 – 17.30	Discussion

PARALLEL SESSION 3:
ACCESS TO QUALITY CLEFT SURGERY SERVICES - TUTORIAL ROOM 1

Chair	Mr Richard B. Stephens MCh FRCSI, Consultant Surgeon, St James Hospital (Ret)
16.00 – 16.15	**INCREASING ACCESS TO CLEFT SURGICAL SERVICES THROUGH HOSPITAL PARTNERSHIP MODEL (7.1)** Stieber, E [1], Desai, P [1], Hollier, L [2] Smile Train, USA[1], Baylor College of Medicine, USA[2]
16.15 – 16.30	**ASSESSING THE QUALITY OF CLEFT SURGICAL OUTCOMES IN THE DEVELOPING WORLD (7.2)** Stieber, E [1], Desai, P [1], Hollier, L [2] Smile Train, USA[1], Baylor College of Medicine, USA[2]
16.30 – 16.45	**AN APPROACH TO THE MANAGEMENT OF THE SURGICAL BURDEN OF CLEFT DISORDERS** Earley, M.
16.45 – 17.00	**BARRIERS TO ACCESSING TIMELY SURGICAL CLEFT CARE: A MULTI-SITE, CROSS-SECTIONAL OUTCOMES STUDY IN VIETNAM (7.4)** Swanson JW,[1] Yao CA,[1] Auslander A,[1] Chanson D,[2] Gura B,[2] Figueiredo JC,[2] Wipfli H,[2] Hatcher K,[3] Vanderburg R,[3] Magee W III[1] Division of Plastic Surgery, University of Southern California, Los Angeles, CA, USA [1], Institute of Global Health and Department of Preventative Medicine, University of Southern California, Los Angeles, CA, USA [2], Operation Smile International, Virginia Beach, VA, USA[3]
17.00 – 17.30	Discussion

PARALLEL SESSION 4:
ADDRESSING HEALTH NEEDS AT THE COMMUNITY LEVEL - TUTORIAL ROOM 8

Chair	Ms Avril Hutch, Assistant Programme Director, RCSI/COSECSA Collaboration Programme
16.00 – 16.15	**PARTNERSHIPS FOR COMMUNITY CAPACITY BUILDING: A STUDY OF THREE COMMUNITY HEALTH COMMITTEES IN NORTH RUKIGA, UGANDA (8.1)** Gilmore, B [1], Conteh, M [2], Dunne, N [2], Muhumuza, J [8], McAuliffe, E [3], Larkan, F [1], Gaudrault, M [4], Mollel, H [5], Tumwesigye, N.M [6], Vallières, F [1,7] Centre for Global Health, Trinity College Dublin, Ireland [1], World Vision Ireland, Ireland [2], School of Nursing, Midwifery and Health Systems, University College Dublin, Ireland [3], World Vision International, United States [4], Health Systems Management, Ifakara Health Institute, Tanzania [5], Department of Epidemiology and Biostatistics, School of Public Health, Makerere University College of Health Sciences, Kampala Uganda [6], School of Psychology, Trinity College Dublin, Ireland [7], World Vision Uganda [8]
16.15 – 16.30	**MENTAL HEALTH AND PSYCHOSOCIAL INTERVENTIONS FOR CHILDREN AND ADOLESCENTS IN STREET SITUATIONS IN LOW- AND MIDDLE-INCOME COUNTRIES; A SYSTEMATIC REVIEW (8.2)** Watters, C [1], O' Callaghan, P [2] Assistant Psychologist HSE West, Sligo [1], Child and Educational Psychologist, Honorary Researcher in Queen's University Belfast [2]
16.30 – 16.45	**ASSESSING THE IMPACT OF GOAL'S COMMUNITY LED TOTAL SANITATION (CLTS) IN SIERRA LEONE (8.3)** Svec, D [1], Yemane Y [1], Korner, M [1], Svoboda, D [1], Limberk, O [1] , Nazir M [2], Chingoma, L [2], Reade, A [2], van Lieshout, M [2] Saaf Consult BV [1] , GOAL Global [2]
16.45 – 17.00	**SEEKING CARE FROM A TRADITIONAL HEALER AFTER INJURY IN SUDAN AND FORMAL HEALTHCARE AVAILABILITY: EXPLORATORY ANALYSIS OF A NATIONAL SURVEY (8.4)** Abdalla S [1] , Abdelaziz M [2] Sudan Health Consultancy, Dublin, Ireland [1], Consultant in Public Health, Warrington and Sudan Health Consultancy, United Kingdom [2]
17.00 – 17.30	Discussion

18.00 HONORARY FELLOWSHIP CONFERRING

Professor Krikor Erzingatsian
Founding Member and former President of the College of Surgeons of East, Central and Southern Africa (COSECSA). Registrar of COSECSA.
Citation Reader: Mr James Geraghty, Council Member, RCSI

Professor Francis Omaswa
Founding Member and former President of the College of Surgeons of East, Central and Southern Africa (COSECSA). Executive Director of the African Centre for Global Health and Social Transformation. Former Director General, Uganda Health Services.
Citation Reader: Mr Ken Mealy, Council Member, RCSI

18.30 Conference Drinks Reception

FRIDAY 22nd APRIL 2016

08.00	Registration

INNOVATIONS IN GLOBAL HEALTHCARE - EDUCATION & TECHNOLOGY

Co-Chairs	Professor Mary Leader, Chairperson Academic Pathology Department, RCSI / Consultant Histopathologist, Beaumont Hospital Mr Declan J. Magee, President, RCSI
09.00 - 09.20	**INFORMATION MANAGEMENT AND STANDARD SETTING FOR GLOBAL SURGERY** Dr Walter D. Johnson, MD, MBA, MPH, FACS Emergency & Essential Surgical Care Programme Lead, World Health Organisation (WHO)
09.20 - 09.40	**CAPACITY BUILDING FOR SURGICAL TRAINING AND RESEARCH IN A LOW TO MIDDLE INCOME COUNTRY: MALAWI CASE STUDY** Professor Nyengo Chiswakhata Mkandawire, BMBS, MCh(ORTH), FCS(ECSA), FRCS(Eng) Professor of Orthopaedic Surgery and Head of Surgery Department College of Medicine, University of Malawi, Adjunct Professor School of Medicine, Faculty of Health Sciences, Flinders University, Adelaide Australia
09.40 - 10.00	**HOW LMIC AND HIC HEALTH AND HEALTH EDUCATION INSTITUTIONS CAN HELP EACH OTHER** Professor Chris Lavy, OBE, MD, MCh, FCS(ECSA), FRCS Professor of Orthopaedic and Tropical Surgery, Honorary Consultant Spine Surgeon Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford
10.00 - 10.20	**PROMOTING GENDER EQUALITY IN SURGERY IN LMIC HEALTH INSTITUTIONS** Ms Faith C Muchemwa (MBChB, PhD, FCS (Plast)), Women in Surgery Africa - East Central and Southern Africa, (WiSA- ECSA)
10.20	Refreshments

PARALLEL SESSION 1: TRAINING IN SURGERY - TUTORIAL ROOM 8

Chair	Professor Laura Viani, Consultant Otolaryngologist, Director of National Cochlear Implant Programme Beaumont Hospital / RCSI Council Member, RCSI
10.45 – 11.00	**TRAINING SURGICAL PROVIDERS IN SUB-SAHARAN AFRICA (9.1)** Lane, RHS [1] , Ndonga, AK [2] , Zulu, R [3] ASGBI. UK [1], COSECSA, Kenya [2], COSECSA, Zambia [3]
11.00 – 11.15	**PHASE 1 OF A PIONEER GENERAL SURGERY TRAINING PROGRAMME IN EQUATORIAL GUINEA (9.2)** Memba, R. Rubio, G. Roman, O. Martínez, P. Climent, C. Grayling,M. Gracia, D. "Más que Salud" (more than just health) – NGO. Spain
11.15 – 11.30	**THE CONCEPT OF 2ND CHANCE RECONSTRUCTIVE SURGERY WORKSHOPS: LESSONS LEARNED FROM THE PAST AND FUTURE PERSPECTIVES (9.3)** Zeidan, A [1], Quinodoz, P [1], Péchère, M [1], Wayi, E [2], Dumont, L[1] 2nd Chance Association-Switzerland [1], CCBRT-Tanzania [2]
11.30 – 11.45	**ONLINE ACADEMY AS AN E-LEARNING TOOL FOR SURGICAL RESIDENTS, A PILOT STUDY (9.4)** van Rheenen T.A, Nazari T, Ocviyanti D , Sumapradja K INCISION Academy
11.45 – 12.15	Discussion

PARALLEL SESSION 2:
IMPROVING QUALITY OF CLINICAL CARE - TUTORIAL ROOM 1

Chair	Dr Jim Kiely, Steering Committee Member, RCSI/COSECSA Collaboration Programme
10.45 – 11.00	**THE COST OF DISTRICT-LEVEL SURGERY IN MALAWI AND FORECASTING THE COST OF SCALE-UP (10.1)** Bijlmakers L.[1], Cornelissen D.[1], Mwapasa G.[2], Borgstein E.[2], Gajewski J.[3], McCauley T.[3], Brugha R.[3] Radboud University Medical Centre, Nijmegen, The Netherlands [1], College of Medicine, Blantyre, Malawi [2], Royal College of Surgeons in Ireland, Dublin, Ireland [3]
11.00 – 11.15	**QUALITY OF LIFE IMPROVEMENTS IN PATIENTS WHO UNDERWENT HERNIA REPAIRS BY COST-AFRICA TRAINED CLINICAL OFFICERS IN MALAWI (10.2)** Gajewski J[1], Bijlmakers L[3], McCauley TM[1], Mwapasa G[2], Borgstein E[2], Cornelissen D[3], Cheelo M[4], Kachimba JS[4], Brugha R[1] Royal College of Surgeons in Ireland, Dublin[1], College of Medicine, Malawi [2], Radboud University Medical Centre Netherlands [3], Surgical Society of Zambia [4]
11.15 – 11.30	**EVIDENCE OF INCREASING IATROGENIC GENITAL FISTULA IN LOW-INCOME COUNTRIES (10.3)** Tripathi V [1], , Ganda S [2], Huda SKN [1], Nembunzu DM [3], Romanzi L [1] Fistula Care Plus Project at EngenderHealth, USA 1, Hôpital national de Lamordé, Niamey, Niger [2] , Hôpital Saint Joseph Kinshasa, Democratic Republic of Congo [3]
11.30 – 11.45	**SURGICAL EDUCATION AND SYNERGY: ACADEMIC, FINANCIAL MATERIEL AND HUMAN RESOURCE BENEFITS OF AN ORTHOPAEDIC SURGICAL TRAINING PROGRAM AT AIC KIJABE HOSPITAL (10.4)** Mara, M, Mwangi, C, Davis, R. AIC Kijabe Hospital, Kenya
11.45 – 12.15	Discussion

PARALLEL SESSION 3:
GLOBAL PARTNERSHIPS FOR HEALTH - TUTORIAL ROOM 2, 3

Chair	Ms Faith C Muchemwa, Women in Surgery Africa- East Central and Southern Africa, (WiSA- ECSA)
10.45 – 11.00	**PARTNERSHIPS FOR SURGICAL AND ANAESTHESIA TRAINING IN TIMOR LESTE (11.1)** Guest GD, Scott D, Moss D, Vreede E, Martins N, Watters DA. Royal Australasian College of Surgeons, Australia
11.00 – 11.15	**TRUST IN GOD AND KEEP YOUR POWDER DRY: POLITICS & POLICY PROCESSES IN GLOBAL HEALTH PARTNERSHIPS, THE CASE OF GAVI, THE VACCINE ALLIANCE (11.2)** Bruen, C, Brugha, R, Byrne, E Department of Epidemiology & Public Health Medicine, RCSI, Ireland
11.15 – 11.30	**A SIMPLE MODEL OF COMPLEX CLINICAL SKILLS EXCHANGE! (11.3)** Redmond M, O Hare B, Ozlislok P, Casey B, Ryan M, Corbally M
11.30 – 11.45	**A PREDICTIVE SCORE FOR THE DIAGNOSIS AND OUTCOME OF EBOLA VIRUS DISEASE (11.4)** King Hamad University Hospital, Kingdom of Bahrain Hartley, M-A , Young, A, Tran, A, Okoni-Williams, H H, Suma, M, Mancuso, B, Al-Dikhari, A, Faouzi, M, Wurie, A. GOAL International, Dublin, Ireland
11.45 – 12.15	Discussion

FRIDAY 22nd APRIL 2016

PARALLEL SESSION 4: RESEARCH AND TECHNOLOGY TO INFORM PRACTICE AND POLICY - TUTORIAL ROOM 4

Chair	Mr Eric O'Flynn, Programme Director, RCSI/COSECSA Collaboration Programme
10.45 – 11.00	**DEVELOPING A NEW BASIC CLINICAL RESEARCH SKILLS COURSE FOR SURGICAL TRAINEES IN COSECSA* COUNTRIES (12.1)** Dreyer JS[1], Bekele A[2,3], Tadesse A[3], Chikoya L[2] Education and Research Committees, International Federation of Surgical Colleges [1], COSECSA [*College of Surgeons of East, Central and Southern Africa] [2], Addis Ababa University [3]
11.00 – 11.15	**THE ETHICS OF INTERNATIONAL ACADEMIC HEALTH RESEARCH BETWEEN THE GLOBAL NORTH AND SOUTH (12.2)** Walsh, A. Byrne, E. Brugha, B. Royal College of Surgeons in Ireland, Dublin
11.15 – 11.30	**SUSTAINABLE POINT-OF-USE TREATMENT TECHNOLOGIES FOR DEVELOPING COUNTRIES: THE WATERSPOUT PROJECT (12.3)** McGuigan K.G.[1,4] , Fagan, G.H[2,4], Quilty B.[3,4] The Royal College of Surgeons in Ireland, Dublin 2, Ireland [1], Department of Sociology, Maynooth University, Ireland [2], School of Biotechnology, Dublin City University, Dublin, Ireland [3], 3U Global Health, 3U Partnership (DCU, MU, RCSI) [4]
11.30 – 11.45	**WE ARE THE CHANGE: DEALING WITH HIV RELATED SELF STIGMA IN ZIMBABWE (12.4)** Ferris France N [1], Conroy R [2], Bryne E [2], Mapanda B [3], Ní Cheallaigh D [4], Nyamucheta M [5], Vumbunu S [5], Tugwete N [5], Mudede D [6], MacDonald S [7], Chiroro P [8] Trócaire/Irish Forum for Global Health/The Work for Change [1] , Royal College of Surgeons in Ireland, Dublin, Ireland [2], Trócaire Zimbabwe, Harare, Zimbabwe [3], Trócaire, International Division, Maynooth [4] , Zimbabwe National Network of PLHIV (ZNNP+), Harare, Zimbabwe [5], CONNECT Zimbabwe Institute of Systemic Therapy, Harare, Zimbabwe [6], Irish Forum for Global Health, Dublin, Ireland [7], Impact Research International, Harare, Zimbabwe [8]
11.45 – 12.15	Discussion

12.15	**KEYNOTE ADDRESS** **TURNING THE WORLD UPSIDE DOWN – PARTNERSHIPS, MUTUAL LEARNING AND CO-DEVELOPMENT** Lord Nigel Crisp House of Lords & Co-Chair, All Party Parliamentary Group on Global Health Introduced by: Dr David Weakliam Programme Lead, HSE Global Health Programme
13.00	Lunch
14.00	Close

GUEST SPEAKERS

MR JAMES CAMPBELL
Director, Health Workforce, World Health Organization (WHO) & Executive Director, Global Health Workforce Alliance (GHWA)

Jim Campbell is the Director of the Health Workforce Department at the World Health Organization, and the Executive Director of the Global Health Workforce Alliance (GHWA), a hosted partnership established at the WHO in 2006 with a ten-year mandate to support actions on the health workforce crisis in low- and middle-income countries. His role at WHO has included the development of and a global consultation on WHO's Global Strategy on Human Resources for Health: Workforce 2030 for submission to the Sixty-ninth World Health Assembly, and ongoing support to the United Nations Secretary-General's High-level Commission on Health Employment and Economic Growth; an initiative to inform multi-sectoral engagement on the Global Strategy. Prior to joining WHO and GHWA he spent eight years as the founder/Director of a not-for-profit research institute.

His publications include A Universal Truth: No Health Without a Workforce (2013), and the State of the World's Midwifery reports (2011 and 2014). He is a Board member of the International Institute for Educational Planning.
Twitter: @JimC_HRH

DR EMMANUEL MALABO MAKASA BSC, HB, MBChB, MMed(Orth), MPH, FCS
Counsellor – Health
Permanent Mission of the Republic of Zambia to the United Nations Office in Geneva, Switzerland

An Orthopaedics and Trauma surgeon turned Global Health Diplomat, Dr Makasa served as Deputy Director responsible for Emergency Health Services at the Ministry of Health, Zambia and as Secretary General of the Zambia Medical Association (ZMA) and the Surgical Society of Zambia (SSZ) before his current assignment as a Global Health Diplomat. He is a Fellow of the College of Surgeons of East Sectral & Southern Africa (COSECSA) and serves on the boards of the Doctors Outreach care International (DOC-i) and Africa Directions (AD). He is a honorary Lecturer at the University of Zambia, School of Medicine (UNZA-SoM), and a Trustee at the Lusaka Orthopaedics Research & Education Trust (LORET). Dr. Emmanuel M Makasa is the past coordinator (2014) of Health Attachés' from the African Region at the UN in Geneva. He proposed, chaired and led the global intergovernmental negotiations that resulted in the adoption of the first ever resolution on surgery and anaesthesia at the World Health Organisation's 68th World Health Assembly.
Twitter: @emakasa

GUEST SPEAKERS

DR JOHN G. MEARA MD, DMD, MBA
Chair, Lancet Commission on Global Surgery
Kletjian Professor of Global Surgery
Director, Program in Global Surgery and Social Change,
Harvard Medical School
Plastic Surgeon-in-Chief, Boston Children's Hospital

John G. Meara, MD, DMD, MBA is the Kletjian Professor of Global Surgery in the Department of Global Health and Social Medicine, Professor of Surgery and Director of the Program in Global Surgery and Social Change within the Department of Global Health and Social Medicine at Harvard Medical School. Dr Meara serves as the Plastic Surgeon-in-Chief of the Department of Plastic & Oral Surgery at Boston Children's Hospital and is Chair for the Lancet Commission on Global Surgery.

He is also the Vice-Chair of the Health Policy Advisory Group for the American College of Surgeons. Since 2008, he has Co-Directed the Paul Farmer Global Surgery Fellowship program in collaboration with Partners In Health. Its purpose is to train leaders who will further promote surgical care, education, and research pertinent to global surgery. His clinical interests and innovation activities are in the areas of craniofacial anomalies and cleft lip and palate, but Dr Meara has a particular interest in augmenting the delivery of quality surgical care in low-resource settings. He is involved in multiple global surgery projects looking at the burden of surgical disease, surgical capacity and systems building in resource poor environments, surgical education, and the economic impact of untreated surgical disease.

PROFESSOR DAVID WATTERS OBE, FRCSEd, FRACS
President, Royal Australasian College of Surgeons

David Watters is the current RACS President who since 2000 has been Professor of Surgery for Barwon Health in Geelong, initially with Melbourne (2000-2010), and then Deakin University (2011-). He is a general surgeon with interests in general, colorectal and endocrine surgery. He is actively engaged in advocating for global surgery, having spent almost 20 years in developing countries including Papua New Guinea, Hong Kong, Zambia and South Africa. He is an Edinburgh University graduate, and in addition to the FRACS, a fellow of the Edinburgh, Hong Kong, and East Central and Southern Africa Colleges of Surgeons. His research interests include history of surgery, surgical audit and performance, colorectal outcomes, perioperative mortality and global health. He has over 120 peer reviewed publications and 6 books including Stitches in Time - Two centuries of Surgery in Papua New Guinea (Xlibris, 2012) and the recently published Anzac Surgeons of Gallipoli (RACS 2015). In recognition of his contribution to surgery and surgical training in PNG he was awarded the OBE (2012), and Rotary's Paul Harris Fellowship (2000)
Twitter: @davidakwatters

DR MILIARD DERBEW

President, College of Surgeons of East Central and Southern Africa (COSECSA)

Dr Miliard Derbew is currently serving as Project Director for Medical Education Partnership Initiative project for Ethiopia; MEPI Ethiopia is consortia project consists of four medical schools in Ethiopia and five international partners in the US He is Principal investigator of the NIH, D 43, Junior faculty research capacity building project partnering with Emory, Alabama and John Hopkins. He is also the current chairman of the MEPI PIs council. He is the President of the College of Surgeons East, Central and Southern Africa (COSECSA).He has also served COSECSA as Assistant Secretary General and Vice President. He is the founding fellow of the college as well. Previously he has also served as Chief Executive Officer (with a rank of Vice President) for the College of Health Sciences, Addis Ababa University (2010 -2011) and Dean of the School of Medicine (2007-2010). He is associate professor of surgery since 2009 and has served as an assistant professor from 1998-2009.

In terms of training, Dr Miliard has got his MD (1987) and Specialty Certificate in Surgery (1993) from the School of Medicine, Addis Ababa University. He has done his fellowship in Pediatrics Surgery (1998) at Tel Aviv University. He is also founding Fellow of the College of Surgeons of East, Central and Southern Africa (COSECSA, 2002), the Office of International Surgery (University of Toronto, 2006) and the Royal College of Surgeons of England (FRCS, 2007). He has over 25 publications on reputable journals.

Twitter: @dmiliard

DR WALTER JOHNSON

World Health Organisation (WHO)

Dr Walter Johnson is currently lead, Emergency and Essential Surgical Care Programme, at the World Health Organization, Geneva, Switzerland. Dr Johnson has worked at WHO part-time since 2012. Recently, he developed an implementation plan for WHA Resolution 68.15: Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage, through the collaborative efforts of multiple stakeholders, with the ultimate goal to bring safe, timely and affordable surgical care to low- and middle-income countries through high-performing surgical healthcare systems and workforce. Dr Johnson completed his medical degree at Loma Linda University in California, a Neurosurgery residency at SUNY-Brooklyn, followed by a cerebrovascular/skull base fellowship at UCLA. He has been involved in academic Neurosurgery since that time and was the Vice-chairman of Neurosurgery at Loma Linda University. He has been involved with Global Surgery during the majority of his career, teaching as visiting professor in Hangzhou, China for several years, and being directly involved in developing general surgery residency training programs throughout Africa, training African physicians to become surgeons. Dr. Johnson also holds a Master's degree in Business Administration from the Peter F. Drucker and Masatoshi Ito School of Management at Claremont Graduate University in California, as well as a Masters in Public Health from that same institution.

Twitter: @drwaltjohnson

GUEST SPEAKERS

PROFESSOR NYENGO CHISWAKHATA MKANDAWIRE
BMBS, MCh(ORTH), FCS(ECSA), FRCS(Eng)
Professor of Orthopaedic Surgery and Head of Surgery Department College of Medicine, University of Malawi,
Adjunct Professor School of Medicine, Faculty of Health Sciences, Flinders University, Adelaide Australia

Professor Mkandawire studied Studied medicine at Flinders University, Adelaide, Australia from 1985-90.
After graduating in 1990 he did one year of internship at the Royal Adelaide Hospital and returned to Malawi in 1992 and worked as a junior doctor at Queen Elizabeth Central Hospital until 1994. Did postgraduate orthopaedic training in the Northwest / Mersey Deanery orthopaedic training programme from 1995 to 1999. He obtained a Master of Surgery in Orthopaedics from Liverpool University. He returned to Malawi at the turn of the millennium in December 1999.

He is a Fellow of the Royal College of Surgeons of England; a Foundation Fellow of the College of Surgeons of East Central and Southern Africa (COSECSA); a Fellow of Federation for Advancement In Medical Education and Research (FAIMER). Past President of the Association of Surgeons of East Africa (ASEA)
He has research interest in varied fields including: HIV and surgery; medical education; public health aspects of surgery; global burden of surgical disease; and human resource for health. Recently Lancet Commissioner on the Lancet Commission on Global Surgery.
Twitter: @NyengoM

PROFESSOR CHRIS LAVY OBE, MD, MCh, FCS(ECSA), FRCS
Professor of Orthopaedic and Tropical Surgery, Honorary Consultant Spine Surgeon
Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford

Chris Lavy qualified at St Bartholomew's Medical College in 1982 and became a consultant in 1992 at The Middlesex Hospital and University College Hospital in London. In 1996 he left to work in Malawi, where he helped to set up two orthopaedic hospitals, national orthopaedic surgical and clinical officer training, and an international clubfoot programme. He also co-founded the College of Surgeons of East Central and Southern Africa (COSECSA). In 2006 he returned to the UK, where he is Professor of Orthopaedic and Tropical Surgery and Consultant Orthopaedic and Spine Surgeon at the University of Oxford. He holds an honorary chair at the London School of Hygiene and Tropical Medicine. He is a council member of The Royal College of Surgeons of England and chair of the International Affairs Committee. He is the chair of CURE International UK which supports children's orthopaedic surgery in resource-poor countries. Professor Lavy was awarded an OBE in the New Year Honours List 2007 for services to orthopaedics. Currently, he is a Commissioner for The Lancet Commission on Global Surgery and leads two projects linking University of Oxford with COSECSA and other local partners, to develop local training in primary trauma care, clubfoot treatment, and orthopaedic surgery.
Twitter: @chris_lavy

MS FAITH C MUCHEMWA
(MBChB, PhD, FCS (Plast)),
Women in Surgery Africa - East Central and Southern Africa, (WiSA- ECSA)

Ms Muchemwa graduated with an MBChB from the University of Zimbabwe in 1998, and a PhD in molecular biology from Kumamoto University, Japan in 2008. Most recently she qualified as a Plastic Surgeon with the College of Surgeons East Central and Southern Africa (COSECSA, 2015). Ms Muchemwa is a senior lecturer at the University of Zimbabwe, currently on Sabbatical leave at St Georges Hospital, London, in the department of Plastic Surgery.

Being one of two female trainees at the time of joining surgical training, Ms Muchemwa always longed for an increased participation of women in Surgery. She was supported by the RCSI/ COSECSA Collaboration Programme, to explore factors hindering women from taking up surgery as a specialty of choice. This led to a publication in the COSECSA Journal (2014), and oral presentations at the COSECSA AGM (2013) and the Bethune Round Table of International Surgery, Canada (2014).

Ms Muchemwa was recently elected inaugural chair of Women in Surgery Africa, an organisation within COSECSA which has a vision of supporting prospective and current surgical trainees, in addition to aggregating a pool of female mentors that young women can emulate.

Ms Muchemwa is interested in basic science research in skin cancers and clinical research in reconstructive surgery, particularly congenital malformations.

Twitter: @fcmuchemwa2000

KEYNOTE SPEAKER

LORD NIGEL CRISP
House of Lords & Co-Chair, All Party Parliamentary Group on Global Health

Nigel Crisp is an independent crossbench member of the House of Lords where he co-chairs the All Party Parliamentary Group on Global Health. He works and writes extensively on global health.

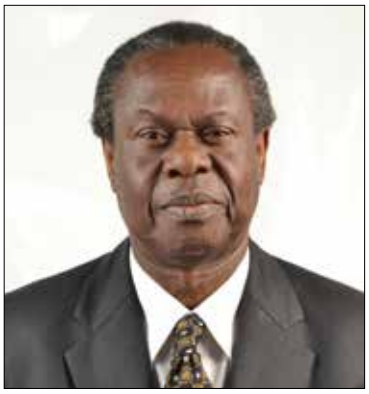
Lord Crisp chairs Kings Partners Global Health Advisory Board, the Zambia UK Health Workforce Alliance and the Uganda UK Health Alliance. He is a Senior Fellow at the Institute for Healthcare Improvement, an Honorary Professor at the London School of Hygiene and Tropical Medicine and a Foreign Associate of the US National Academy of Medicine.
He was formerly a Distinguished Visiting Fellow at the Harvard School of Public Health and Regent's Lecturer at Berkeley.

His publications on global health include *Turning the world upside down - the search for global health in the 21st Century; Global Health Partnerships; and, edited with Francis Omaswa, African Health Leaders – making change and claiming the future.* He described his time as Chief Executive of the NHS in 24 Hours to Save the NHS – the Chief Executive's account of reform 2000 – 2006.
He was previously Permanent Secretary of the UK Department of Health and Chief Executive of the English NHS – the biggest health organisation in the world with 1.3 million employees – where he led major reforms between 2000 and 2006.

A Cambridge philosophy graduate, he worked in community development and industry before joining the NHS in 1986. He has worked in mental health as well as acute services and was from 1993 to 1997 the Chief Executive of the Oxford Radcliffe Hospital NHS Trust, one of the UK's leading academic medical centres.

Visit nigelcrisp.com for further information

HONORARY FELLOW AND KEYNOTE SPEAKER



PROFESSOR FRANCIS OMASWA
Founding Member and former President of the College of Surgeons of East, Central and Southern Africa (COSECSA). Executive Director of the African Centre for Global Health and Social Transformation. Former Director General, Uganda Health Services.

Dr Francis Omaswa is the founder and Executive Director of the African Center for Global Health and Social Transformation (ACHEST), that promotes application of evidence based policies and strategies that are owned and driven by African populations themselves.

He is Chancellor of Busitema University in Uganda, Chair of the African Platform for Human Resources for Health. He was founding Executive Director of the Global Health Workforce Alliance in Geneva, Director General of Health Services in Uganda, Chair of the Global Stop TB Partnership Board, Chair of the Portfolio and Procurement Committee of the Global Fund Board, Chair of Independent Review Committee of the GAVI. He has a keen interest in access of the poor to health care.

Dr Omaswa is a graduate of Makerere Medical School, founding President, College of Surgeons of East Central and Southern Africa, Fellow of Royal College of Surgeons, Edinburgh, New York Academy of Medicine, Senior Associate, Johns Hopkins School of Public Health, Fellow Uganda National Academy of Science, Foreign Associate, and Institute of Medicine of the USA Academy of Sciences. He has recently co-edited two books "African Health Leaders; making change and claiming the future" and Handbook for Health Ministers".

Twitter: @omaswaf

HONORARY FELLOW

PROFESSOR KRIKOR ERZINGATSIAN
Founding Member and former President of the College of Surgeons of East, Central and Southern Africa (COSECSA). Registrar of COSECSA.

Professor Krikor Erzingatsian was born in Ethiopia, with Armenian nationality. After completing secondary school in Wales, Prof Krikor completed his undergraduate medical education in the Royal College of Surgeons in Ireland, where he excelled, winning a number of prizes. He undertook surgical training in Ireland, Scotland and Ethiopia and gained his Fellowship from RCSI in 1976 and held the post of surgeon prosector from 1982 to 1984. He practiced as a general surgeon and most of his surgical career was undertaken in Zambia, where he twice held the post of Head of the Department of Surgery in the University of Zambia.

Professor Erzingatsian was a driving force behind the creation of the College of Surgeons of East, Central and Southern Africa (COSECSA). Professor Erzingatsian is the longest serving member of COSECSA Council. As well as his current post of Registrar, he has been Vice-President, President and Registrar/ CEO of COSECSA. His tireless energy helped nurture a young college and contributed greatly to a rapid increase in trainee numbers to over 330 in 2015. For this Professor Erzingatsian was awarded an Honorary Fellowship of COSECSA in 2012.

Two individuals have been instrumental in forging the relationship between COSECSA and RCSI. Those were the late Professor Gerry O'Sullivan and Professor Erzingatsian, who both trained in RCSI hospitals, and found themselves as Presidents of their respective colleges many years later. The relationship between the two colleges began in 2007 and initially took the form of examination and financial support. Over time, and with the generous support of Irish Aid, grew into a "whole College collaboration" involving areas as diverse as IT, communications, leadership training, strategic planning, basic science training, e-learning, capacity building and many other areas. Professor O'Sullivan was awarded an Honorary Fellowship of COSECSA in 2011 in recognition of the impact of the Collaboration Programme.

ABSTRACTS

Parallell Sessions

ABSTRACT REFERENCE

ABSTRACT NUMBER: 1.0

PARTNERSHIP IN THE PACIFIC – THE PACIFIC ISLANDS PROGRAM

Watters, DA, Maote, K.
The Royal Australasian College of Surgeon, Australia

BACKGROUND
The Pacific Islands have a population of some 3m scattered across different Islands within Melanesia, Polynesia and Micronesia. These nations gained their independence after the Second World War from Australia, New Zealand, France or the United States. Fourteen nations with populations of 1000 to 900,000 and were originally Australian or New Zealand colonies have been included in a program to support Specialist Health Services in Pacific in 1995. The only medical schools within the Pacific providing postgraduate medical training are in Papua New Guinea (since 1975) and Fiji (since 1998).
METHODS
The Australian-aid funded Pacific Islands Program was originally designed to provide Specialist Clinical Service delivery, but once the Fiji School of Medicine (FSM) began to train postgraduate medical specialists, it included capacity building in its objectives. Until 2010, the program was managed from the RACS in Melbourne, but thereafter a coordinating group, Supporting Specialist Clinical Services in the Pacific (SSCSIP) was established, to ensure Pacific Island Specialists and their Ministries of Health were actively engaged in determining priorities and responding to reports by visiting specialist teams. The four phases of PIP have been independently [and positively] evaluated for the Australian government before proceeding to each new phase. New Zealand Aid has supported the transfer of selected patients from the Pacific to NZ, and a biannual Pacific Islands Surgical Association meeting.
RESULTS
Clinical Services: Since 1995 over 1000 operations and almost 5000 consultations per year have been delivered to 12 Nations. These have involved all surgical specialties though cardiac surgery and neurosurgery have only been provided in major centres. Clinical teams have involved other medical specialties also such as Diabetes, Psychiatry and Renal Medicine. 128 Specialist Medical Teams have been funded to visit 10 Nations in the Pacific over the past 3 years.
Capacity Building: During the early phases capacity building was achieved only by on-the-job training in an apprenticeship model, and skill transfer when there was a suitable specialist or specialist trainee to accompany the team. Over time this became routine. Some 40 Surgical Specialists from 8 Nations (Fiji, Solomon Islands, Vanuatu, Tonga, Samoa, Cook Islands, Micronesia and Kiribati) have now graduated from the Fiji School of Medicine MMed program and all of these have benefited both from the training provided by visiting teams and in placements within New Zealand or Australia for subspecialty training after completing their General Surgery (embracing all conditions) in-country training. The training in the last three years has involved over 1500 health care workers with over 90% of the formal workshops or training being conducted in the Pacific. Travelling Fellowships to the RACS Annual Scientific Congress and other Specialty meetings have enabled Pacific Island Specialists to receive CME, and build their own professional networks.

CONCLUSION
PIP has provided a significant input to Specialist Medical Care in the Pacific, supported the local postgraduate training of specialists, and contributed to their continuing medical education.

ABSTRACT NUMBER: 1.1

GLOBAL EMERGENCY CARE SKILLS

O'Sullivan, Jean
Global Emergency Care Skills- GECS

AIMS
Global Emergency Care Skills (GECS) is a non-profit voluntary organisation founded in Ireland in 2008. Our aim is to decrease morbidity and mortality in countries with under resourced healthcare systems by running training programmes for healthcare staff focusing on trauma care, major disaster management and resuscitation skills. One of our primary areas of focus is the management of sepsis as infection is one of the lead causes of death in children and in those suffering from HIV in Africa.

METHODS
The teaching faculty is composed of emergency medicine physicians, anaesthetists and plastic surgeons. Only doctors of a senior grade (consultant or Senior Specialist Registrar) are invited to join faculty. To date we have run training courses in Kenya, Zambia, Malawi, Tanzania, Ethiopia and also in Ghana. The courses are skills based and we spend the last day of the courses training the participants to teach their colleagues these lifesaving skills. We supply teaching equipment and have developed an on line learning programme to support local faculty run their own courses. We have full charitable status with Irish Revenue (CHY 18572) and have funded our courses through various fundraising events throughout the year. We also supply hospitals with lifesaving medical equipment which we teach staff to use.

RESULTS
We sought to establish the effectiveness of the GECS training courses in a rigorous quantitative manner in three of the countries where GECS courses have been established. We measured the participant's pre course core knowledge and subsequent improvement therein by comparing the results of pre-course and post-course multiple choice questionnaire exams.

CONCLUSION
Comparison of results in each country separately and cumulatively demonstrated a statistically significant improvement in participant's knowledge after completing a Global Emergency Care Skills course. This improvement mirrors the qualitative improvement in psychomotor skills, knowledge and attitudes seen in candidates who participated in the course.

For more information please visit our website: www.gecs.ie or email info@gecs.ie

ABSTRACT NUMBER: 1.2

THE ROLE OF TRAUMA REGISTRIES IN THE DEVELOPING WORLD: A CASE STUDY IN MBARARA, UGANDA

Webb, S.
Current Medical Year: 4, University of Bristol

AIMS

The growing burden of injury represents a major public health problem, worldwide. The most recent global statistics reveal that every year injuries claim 5.8 million lives and are responsible for the loss of over 300 million disability-adjusted life years (DALYs). Although the problem of injury is global, over 90% of deaths from injury occur in the developing world, which represents a significant health inequality. In the light of this, the World Health Organisation (WHO) has called for a variety of actions to rectify this disparity, including "improving surveillance and research" into trauma data. This last WHO goal is the focus of this project, which explores the role of trauma registries in the developing world.

Trauma registries are defined as "databases that document acute care to patients hospitalised with injuries… to provide timely and accurate information to improve the efficiency and quality of trauma care". Within the developed world, trauma registries have been central to the significant reduction of mortality from injury in the last fifty years, by driving quality improvement in trauma care. Conversely, there are far fewer functional trauma registries in the developing world. In the only comprehensive systematic review of the global prevalence of trauma registries, O'Reilly found that there were over five times more trauma registry publications in the developed world.

METHOD

In the light of this, I designed a single page trauma registry pro-forma (see next page) to pilot in the emergency department of Mbarara Regional Referral Hospital (MRRH) in Western Uganda, which currently has no functional trauma registry. Over the two-week period, 50 complete datasets were analysed

RESULTS

The most striking findings were that only 12% of patients with moderate and severe injuries (classified using the Kampala Trauma Score) came to the department in ambulances, compared to 90% of major trauma cases in the UK, and that half of all trauma cases in my sample had been involved in road traffic accidents (RTAs).

CONCLUSION

The development of the 'MRRH Trauma Registry Pro-forma' has shown that a single-page pro-forma can be used to rapidly collect relevant data on trauma patients in MRRH and could in the future, be used to assess and triage them.

Even in the short time and with the small sample that was collected, there was evidence of inadequacies in the region's pre-hospital care and road safety. Next year, a feasibility study will be undertaken looking at storing the data electronically in the department to help expand the dataset and assist with drawing further conclusions.

ABSTRACT NUMBER: 1.2 CONTINUED

Appendix 1: Mbarara Regional Referral Hospital Trauma Registry Pro-forma

1) Age:.....

2) Gender: Male ☐ Female ☐

3) Arrived to hospital by: Private vehicle ☐ Public transport ☐

4) Mechanism of injury:
- Road traffic collision ☐
- Blunt force ☐
- Fall ☐
- Stab/cut ☐
- Bite ☐
- Burn ☐
- Other ☐

5) Nature of injury:
- Open wound ☐
- Bruise/superficial injury ☐
- Fracture ☐
- Concussion ☐
- Strain/sprain/dislocation ☐
- Internal organ injury ☐
- Other ☐

6) Location of injury:
- Head/face ☐
- Neck ☐
- Spinal Cord ☐
- Upper extremity ☐
- Lower extremity (inc. pelvis) ☐
- Thorax ☐
- Abdomen ☐

7) Kampala Trauma Score:		
Description		**Score (circle)**
Age	5-55	1
	<5 or >55	0
Systolic BP	>89mmHg	2
	50-89mmHg	1
	<50mmHG	0
Resp. rate	10-29	2
	>29	1
	<10	0
Neuro status	Alert	3
	Responds to verbal stimuli	2
	Responds to painful stimuli	1
	Unresponsive	0
Number of serious injuries	None	2
	1	1
	2 or more	0
Overall score: 9-10 (Mild) 7-8 (Moderate) 0-6 (Severe)		

8) Immediate outcome
- Treated and discharged ☐
- Admitted to hospital ☐
- Died in the casualty department ☐

9) Testing
- Bloods ☐
- Plain film ☐
- USS ☐
- CT ☐
- MRI ☐

10) Interventions
- Airway management ☐
- Fluid administration ☐
- Blood product ☐
- Surgery ☐

ABSTRACT NUMBER: 1.3

TEACHING THE MANAGEMENT OF UROLOGICAL EMERGENCIES THROUGH A SHORT COURSE TO SURGICAL RESIDENTS IN EAST/CENTRAL AFRICA DELIVERS EXCELLENT EDUCATIONAL OUTCOMES

Campain, NJ [1], Lane, R [2], Spasojevic, N [3], Dreyer, J [4] , Venn, S [5], Biyani, CS [6]
Urolink, British Association of Urological Surgeons, UK [1], ASGBI, UK [2],University Teaching Hospital, Lusaka, Zambia [3], NHS Dumfries & Galloway, UK [4], Western Sussex Hospitals NHS Foundation Trust, UK[5] , Leeds Teaching Hospitals, UK [6]

AIMS
In Africa, the urological burden of disease is high, with few trained urologists. Surgical trainees deal with large numbers of urological emergencies.

Urolink, a sub-committee of BAUS, delivered a Urology module on courses for the 'management of surgical emergencies' (MSE), developed by the Association of Surgeons of Great Britain & Ireland and the College of Surgeons of East, Central and Southern Africa. Objectives were to teach residents to manage common urological problems including urinary retention, genitourinary trauma and acute scrotal emergencies.

METHODS
A 5 day course was developed (half day for urological emergencies). The urology module was aimed at learners' needs, guided by local trainers. Teaching was delivered through lectures, videos, practical sessions and individual mentoring. Participants' knowledge was assessed through pre and post course tests. Practical and non-technical skills were evaluated formatively.

RESULTS
Since 2011, 7 MSE courses were delivered (n = 108 residents completing urology module). Course content evolved, with greater emphasis on urological trauma (common in the African setting). 7 local faculty were trained to teach the urology module. In 2014 the first MSE course ran independently without overseas funding or assistance.

Participants feedback was excellent. Candidates rated course content, delivery and usefulness very highly. Pre and post course multiple choice questions indicated improvements in knowledge. After 6 months, 90 % participants indicated significantly improved ability to manage urological emergencies.

DISCUSSION
A short course on the management of urological emergencies improves surgical residents knowledge and practical skills. Feedback indicated that the MSE course addressed learning needs. The course can be sustainable by training local faculty. Further specific operative urological training programmes have been developed as a result of ongoing collaboration between local and overseas faculty.

ABSTRACT NUMBER: 1.4

PREDICTORS OF DELAY IN PRESENTATION FOR TRAUMA CONDITIONS AT THREE RURAL DISTRICT HOSPITALS IN RWANDA

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Partners in Health - Inshuti Mu Buzima, Kigali, Rwanda [1], Department of Global Health and Social Medicine, Harvard Medical School, Boston, USA [2], Department of Surgery, University of California, San Francisco, USA [3], Brigham and Women's Hospital, Boston, USA [4] , University Teaching Hospital, Kigali, Rwanda [5], Ministry of Health, Kigali, Rwanda [6]

BACKGROUND / AIM
Among surgical conditions, trauma accounts for 9.2%% of global mortality, and low- and middle-income countries bear 90% of that burden. In addition to limited surgical capacity and infrastructure, delayed presentations for care lead to untimely interventions and poor health outcomes for trauma patients. This study assessed the predictors of delayed presentation for trauma patients in Rwanda.

METHODS
This cross-sectional study included patients presenting with trauma to Rwinkwavu, Kirehe and Butaro District Hospitals between January 1, 2013 and December 31, 2013. We described patient characteristics using univariate analysis and performed a multivariate logistic regression to identify predictors of delayed presentation. Delay was defined as duration of symptoms greater than one day.

RESULTS
In 2013, 1146 patients presented to the three hospitals with trauma conditions. Most of the patients aged between 15-40 years (45.3%, n=502) and were male (67.9%, n= 776). The majority suffered road traffic injuries (36.7%, n=372) and were diagnosed with closed long bone fractures (30.4%, n=348). For 835 patients with records on delay, 30.8% (n=257) had delayed in presentation. Delay was associated with presenting to Rwinkwavu District Hospital (OR:1.85; 95%CI:1.10-3.11; p=0.021); burn diagnosis (OR:4.81; 95%CI:2.53 – 9.15; p<0.001); referral from another hospital (OR:5.47; 95%CI:1.94–15.41; p=0.001); and falls (OR=2.45; 95%CI: 1.30 – 4.64; p=0.006). Patients without insurance were less likely to delayed (OR=0.3; 95%CI: 0.14 – 0.66; p=0.003).

CONCLUSION
Rwanda has a strong pre-hospital referral network which resulted in 70% of patients presenting to the district hospital in a timely manner. The referral system could potentially decrease delays for non-critical trauma patients by improving the triage and insurance verification process during transfer, as well as defraying costs of transfer and facilitating horizontal transfers, where necessary.

ABSTRACT NUMBER: 2.1

ATTITUDES AND BELIEFS OF HEALTH PROFESSIONALS TOWARDS HEALTH LITERACY IN UGANDA

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BACKGROUND
Health literacy is a growing concept in healthcare literature and relates to a patient's ability to obtain, read, understand and use healthcare information to make appropriate health decisions and follow instructions for treatment. To date there has been little research done on health literacy in developing countries. This study aims to explore the attitudes and understanding of healthcare workers in Uganda towards health literacy and investigate any strategies currently in use to promote health literacy in a Ugandan hospital setting in order to better understand the concept of health literacy in a Ugandan context.

METHODS
Qualitative structured interviews were conducted among 32 healthcare workers in Kisiizi Hospital, Uganda by three researchers. Interviews were individually audio-recorded and transcribed. The data was coded, condensed and main themes were identified.

RESULTS
Five main themes emerged from the data analysis as follows: (i) Definition and understanding of health literacy, (ii) Access to health information, (iii) Strategies currently in use to provide health information, (iv) Challenges faced in improving health literacy, (v) Developments that could further facilitate the improvement of health literacy.

CONCLUSIONS
Healthcare workers demonstrate a strong appreciation and positive attitude towards health literacy. While challenges persist; strategies are currently in place within this setting to improve health literacy among patients and healthcare workers. There is a need for these strategies to be built upon and the strong motivation among healthcare workers will help to facilitate positive developments in this area.

Key words: Health literacy, Healthcare Workers, Uganda, Understanding, Strategies.

Abbreviations: Health Literacy – HL, Healthcare Workers – HCWs.

ABSTRACT NUMBER: 2.2

RETENTION OF SURGERY GRADUATES IN EAST, CENTRAL AND SOUTHERN AFRICA

Hutch, A [1], O'Flynn, E [1], Derbew M [2], Jani P [2], Tierney S [3], Mkandawire N [2], Erzingatsian K [2]
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BACKGROUND
This study assesses retention of graduates from surgical training programmes across eight countries in East, Central and Southern Africa over a thirty seven year period. It addresses the gap in existing data by analysing retention rates of trainees by comparing graduating institution to current location. Data is assessed by country, region, specialty and gender with a view to informing national and regional healthcare and education strategies.

METHODS
26 institutions train surgeons in the ten countries covered by the College of Surgeons of East, Central and Southern Africa (COSECSA) - 25 Universities and the College itself. These institutions were requested in November 2014 to supply details of graduates from their postgraduate surgical training programmes. Complete graduate lists were returned by the College and 20 Universities by September 2015. These graduates were compared against the database of current practising surgeons in the region held by COSECSA.Current surgical workforce data was recorded as part of a collaboration programme with the Royal College of Surgeons in Ireland (RCSI). This data was gathered and crosschecked from multiple sources: COSECSA records, medical council registers, local surgical societies records, event attendance lists and interviews of Members and Fellows of COSECSA.

RESULT
Data was incomplete for 17 graduates. Of the remaining 911 graduates from 1975-2012, 83.57% were retained in the country they trained in, while 86.97% were retained within the COSECSA region. Ninety-three percent (92.62%) were retained within Africa. Of the eight countries, Zambia had the highest retention rate with 96.15% of surgeons remaining in-country, while Zimbabwe had the lowest rate with 69.23% remaining.

CONCLUSION
High surgical graduate retention rates across the region indicate that the expansion of national surgical training initiatives are an effective solution of addressing the surgical workforce shortage in East, Central and Southern Africa and counter long-held arguments regarding brain drain in this region.

ABSTRACT NUMBER: 2.3

A SYSTEMATIC REVIEW AND ANALYSIS OF SURGICAL RESEARCH PUBLICATIONS FROM TEN AFRICAN COUNTRIES 2008-2014

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AIM
The aim of this study was to quantify surgical research productivity over 5 years from ten countries forming the College of Surgeons of East, Central and Southern Africa (COSECSA) and to compare this quantity against a sample high income country.

METHOD
A PubMed search was undertaken for publications in English between September 2008-September 2014 using the COSECSA country names and the word 'surgery'. The variables collected were journal impact factor (IF), senior author's country of origin, study design, originating African institution and surgical specialty. The data was analyzed quantitatively and qualitatively. We also calculated the ratio between the number of publications and total health expenditure (THE) per capita for each country. (THE ratio = No. publications/THE per capita).This allowed us standardize the quantity of publications for each country by population and resource differences and compare it with a sample high income country.

RESULTS
10 countries published 507 papers in 189 journals. Senior authors without affiliation to an African institution (51%) published papers in higher IF journals than authors affiliated to an African institution ($p < 0.0002$). 47% of papers originated from eight institutions. 46% were published in journals without a Thomson Reuters IF ($p < 0.0001$). 3.4% were published in journals with IF > 6. The THE ratio of 5 countries compared favourably with the sample high income country.

CONCLUSION
Future investment should focus on forging links with international partners to expand on research quality. The quantity of standardised surgical research productivity was comparable to a sample high income country.

Keywords: Research, Global Surgery, COSECSA

ABSTRACT NUMBER: 2.4

THE SPECIALIST SURGEON WORKFORCE IN EAST, CENTRAL AND SOUTHERN AFRICA: A SITUATION ANALYSIS

O'Flynn, E[1], Andrew, J[2], Hutch A[1], Kelly, C[4], Jani, P[2], Kakande, I[2], Derbew, M[2], Tierney, S[3], Mkandawire, N[2], Erzingatsian, K[2]
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AIMS
In East, Central and Southern Africa accurate data on the current surgeon workforce has previously been limited. In order to ensure that the workforce required for sustainable delivery of surgical care is put in place, accurate data on the number, specialty and distribution of specialist-trained surgeons is crucial for all stakeholders in surgery and surgical training in the region.

METHODS
The surgical workforce in each of the ten member countries of the College of Surgeons of East, Central and Southern Africa (COSECSA) was determined by gathering and crosschecking data from multiple sources including COSECSA records, medical council registers, local surgical societies records, event attendance lists and interviews of Members and Fellows of COSECSA, and validating this by direct contact with the surgeons identified. This data was recorded and analysed in a cloud-based computerised database, developed as part of a collaboration programme with the Royal College of Surgeons in Ireland (RCSI).

RESULTS
A total of 1690 practising surgeons have been identified yielding a regional ratio of 0·53 surgeons per 100,000 population. A majority of surgeons (64 %) practise in the main commercial city of their country of residence and just 9 % of surgeons are female. More than half (53 %) of surgeons in the region are general surgeons.

CONCLUSIONS
While there is considerable geographic variation between countries, the regional surgical workforce represents less than 4% of the equivalent number in developed countries indicating the magnitude of the human resource challenge to be addressed.

ABSTRACT NUMBER: 3.1

GLOBAL HEALTH PARTNERSHIPS: SUDAN DIASPORA CASE STUDY

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ISSUES
The Sudan is facing a reality of migration of its health professions, especially medical doctors and specialists in various disciplines. The tremendous loss in kind and number, where >60% of Sudanese specialists are practicing abroad and several specialized clinics closed their doors. Managing the phenomena is a proposition and Diaspora engagement lies in its heart. The huge out-flux of health professions whether senior specialists or young dynamic graduates created a gap in the health system.

DESCRIPTION
The Diaspora Engagement Program is the result of understanding the context of migration of Health professions, the interacting factors, dynamics and context influencing the phenomena. It address the need for an independent body channeling, regulating and systematically utilizing the available expertise of migrant Sudanese professionals in Diaspora. This will support the specialty training and reform within the country in a sustainable manner. The aim of this program is to provide appropriate, practical and sustainable options to improve the coverage and quality of health professionals' training in the field of medicine and health sciences in Sudan by setting practical solutions and facilitating policy recommendations.

LESSONS LEARNED
The Sudan Medical Specialization Board established a Diaspora Engagement Model (DEM) to support specialty training in Sudan. The model is based on three innovative streams; supporting cross-cutting training, specialty training and enhance multisectoral institutional capacity

DATA
The medical councils successfully organized, promoted, raised and mobilized resources in the form of technology; expertise and training of hundreds of registrars throughout. Councils as the psychiatry, emergency medicine, radiology and surgery among others partnered south to north through their associations within and abroad the country.

NEXT STEPS
This program will better inform health care service quality improvement efforts. Health professions in and out of the country, national officials, mandated institutes as the SMSB, believe it is key to manage and address the challenge.

ABSTRACT NUMBER: 3.2

EQUALS PARTNERSHIP ZAMBIA – IRELAND

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ISSUES
Postgraduate medical training

DESCRIPTION
In 2012 the 'EQUALS' Initiative (Equipment and Quality Support through partnerships in healthcare) was established between the Royal College of Physicians of Ireland and the Irish Health Service Executive with aims of donating medical equipment and supporting training for clinical and biomedical engineering staff. The focus is to build capacity to improve health, based on the priorities and needs identified by partners. Technical working groups have been set up in Zambia and Ireland to coordinate activities, in collaboration with the Ministry of Health and the Tropical Health Education Trust (THET). An MOU has been signed between RCPI and the Ministry to develop post-graduate medical training. The Northern Technical Institute in Ndola has launched a training course for Biomedical Engineering Technicians with THET support. A Ministry of Health representative has visited Ireland to investigate post graduate medical training structures. The initiative will facilitate the development of a training and examination body, and the setting of standards in the context of expanding undergraduate medical education. A SWOT analysis of the current Zambian system is underway.

LESSONS LEARNED
Specialist medical training requires adequately equipped training sites: complementarity of training support and equipment donation.
Much of the equipment being replaced in Irish hospitals is suitable for donation to low income settings.
Donations should reflect needs identified by recipient institutions.
Clear procedures for equipment donation needed: selection, collection, transport, shipping, maintenance and servicing considerations, potential liabilities.
Sustainability: avoid dumping, WEEE regulations.

NEXT STEPS
There are new opportunities for health system partnerships across education, training, and clinical services, and to develop and inform appropriate good practice evidence based guidelines.
Hospitals designated as teaching hospitals need to be adequately equipped with functioning medical equipment.
North-South partnerships between medical training institutions can support LMICs like Zambia to develop specialist medical training programmes tailored to local needs.

ABSTRACT NUMBER: 3.3

PUBLIC-PRIVATE PARTNERSHIPS FOR GLOBAL HEALTH: WHAT IS THE EVIDENCE?

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AIMS
Public-private partnerships (PPP's) in the context of global health attract a lot of interest and resources. Governments around the world, especially in Europe and the United States, have increasingly engaged with the private sector in developing and financing health infrastructure and technologies and in delivering health services through PPP's. What is it that PPP's try to achieve? What characterises a sound PPP? What are the benefits and the critical conditions for success; and what are the controversies? And is there any evidence that warrants the high expectations from such partnerships? How does one assess their performance in the first place?

METHODS
Review of literature, in particular a recent systematic review and some discussion papers and case studies reports.

RESULTS
We discuss an analytical framework that can be used to appraise or evaluate PPP's (or institutional partnerships in general), some critical success factors that have emerged from the literature, along with some of the main critiques and controversies. We argue that the evidence that PPP's are actually instrumental in achieving better health, or development in general, has been thin so far, with the research scrutiny coming mainly from accountancy and public administration rather than from a broad range of disciplines. We discuss three emerging research themes that were suggested in a recent systematic review, along with a multidimensional framework. And we propose two ways of evaluating PPP performance in the context of global health.

DISCUSSION
While empirical evidence is scanty, some of the critical success factors for PPP's that have been reported on appear to be universal. There is little consensus about the precise criteria that would need to be used to evaluate PPP performance, but the good news is that several sets of criteria already exist. It is appropriate to invest more in research and apply these criteria when evaluating a particular PPP.

ABSTRACT NUMBER: 3.4

CREATING A SUSTAINABLE EYE CARE MODEL FOR AFRICA, TEN YEARS' EXPERIENCE

Coleman, K.
Founder, Right to Sight International

ISSUES
We have the technology to perform safe, inexpensive ten minute cataract operations yet this was not being offered to the 7 million Sub Saharans with easily curable blindness.

DESCRIPTION
In 2006 Right to Sight (RTS) was founded in the RCSI to explore a proof of concept which we believed would address the critical shortage of eye surgeons in Africa. We wanted to know if new African doctors would be attracted to the specialty if offered the same rewards: the joys of instant sight restoration, interesting innovations, excellent working hours, good remuneration. The RTS challenge was to provide a)local high quality surgical base b)local high quality training c)good incomes whilst serving the poorest d) local sub specialty training , addressing surgeon retention. From 2006 to 2010 we partnered Aravind, India, to capacity build 26 hospitals in 8 African countries. We invested $100,000 per hospital over 2 years, sent 185 Africans to India for workshops, and placed Indian experts (theatre staff, surgeons, administrators, opticians, lens grinders, outreach and patient transport managers) in Africa. We generated profit in high volume low cost systems, cross subsidising free services and salaries with the profits. We explored different partnership models: private/public/ government. In 2008 we invested $80,000 in Rwanda for government planning, and in 2010, $1 million in Cameroon developing an economically sustainable eye hospital in Douala. We developed new training courses: ophthalmic engineering workshop (Rwanda), outreach managers training (Kenya), a scholarship center for SICS (Nairobi, a peripheral SICS center linked to a medical school curriculum (Kitale Kenya and Nairobi). In 2015, RTS opened the first paediatric glaucoma surgery training center in Lilongwe, Malawi.

LESSONS LEARNED
Cross subsidised high quality high volume low cost eye care is effective in Africa and forms the basis of good volume teaching programmes

NEXT STEPS
Our international network of sub speciality eye surgeons are poised to support centers of excellence in these economically sustainable programmes, aiding surgeon retention, and importantly has identified likely causes of programme failure for others interested in eliminating this needless blindness.

ABSTRACT NUMBER: 4.1

SKILLS RETENTION IN SUDANESES VILLAGE MIDWIVES ONE YEAR FOLLOWING HELPING BABIES BREATHE TRAINING

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AIMS
Over 80% of deliveries in Sudan occur in isolated villages, attended by a village midwife (VMW). Upgrading newborn resuscitation skills with the Helping Babies Breathe (HBB) programme could improve newborn survival. This study aims to describe the competencies in newborn resuscitation of selected VMWs pre- and post-HBB training.

METHODS
In a prospective, intervention study, the VMWs performances of the HBB Objective Structured Clinical Examination (OSCE) B simulated scenario (mannequin requires face-mask (FM) ventilation) were digitally recorded and analyzed prior to, and 3 and 12 months following HBB training. Regular mannequin-based practice was encouraged following training.

RESULTS
Pre-HBB training, 42 % of 71 VMWs (of whom 61% were functionally illiterate) stimulated the non-breathing mannequin by holding it by the legs and either stimulated/slapped (30.4%) or shook (12.7%) it, while 25% (18/71) provided mannequin mouth-to-mouth ventilation. The low scorings on the "preparation for birth" (0% and 3.1% at 3 and 12 months, respectively) was mainly due to failure to demonstrate the sub-item of "cleans hands".
The percentage of VMWs providing mannequin face-mask (FM) ventilation within the Golden Minute almost doubled from 37.3% (25/67) to 72.3% (47/65) ($p < 0.005$) but there were no significant differences in the number of VMWs producing at least five FM ventilations at 3 months (73%: 49/67) and 12 months (58%%: 38/65), respectfully.

CONCLUSIONS
VMWs, despite a high illiteracy rate, absorbed and sustained HBB skills for at least a year. Regular, low intensity, mannequin based, skills training with peers, may have helped sustain FMV, but not hand cleansing skills.

ABSTRACT NUMBER: 4.2

BETWEEN A ROCK AND A HARD PLACE; THE CHALLENGES AND RESPONSES OF FORMAL AND INFORMAL HEALTH WORKERS IN COMMUNITIES AND HEALTH FACILITIES IN MALAWI, FROM THE COSYST – MNCH PROJECT

Matthews, A [1] , Byrne, E [2], Walsh, A [2] , Mwale, D [3], Manda-Taylor, L [3], Phyriee, T [3] , Mwapasa, V [3], Weiss, J [4] , Brugha, R [2]
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AIMS
The aim of the Community Systems Strengthening for Equitable Maternal, Newborn and Child Health (COSYST – MNCH) project was to identify community systems obstacles and enabling factors underpinning MNCH service utilisation in Malawi within the first 1000 days of life, in order to generate strategies for strengthening community systems. The challenges and responses of formal and informal health workers in community and health facility settings are explored here.

METHODS
Qualitative data used for this presentation were gathered from 80 in-depth interviews (with traditional birth attendants, community health workers, traditional and religious leaders, NGOs representatives, government officials and health workers, including nurses, doctors and medical assistants) and 20 focus group discussions with male and female community members. Data were managed in NVivo (v10) and analysed using thematic analysis.

RESULTS
Key community-systems themes impacting negatively on MNCH service uptake included: (1) inadequacy (human, financial and material) resources at community and facility level; (2) practical difficulties for community members wishing to access appropriate services, despite referral pathways being are in place, which particularly rely on community health workers (Health Surveillance Assistants) (3) and negative experiences for women when encountering formal health workers (midwives, nurses, doctors). Positive factors included community leadership and support for informal and formal health workers and service uptake.

DISCUSSION / CONCLUSION
While there are linkages between informal and formal health workers and services, poverty, poorly resourced health services and women's negative experiences of health workers inhibit women accessing adequate MNCH services. Community systems factors, including leadership from traditional leaders has supported government policies on promoting facility-based care and births, away from traditional practices. Financial support for women to give birth at facilities is also showing positive impact.

*COSYST-MNCH (www.cosystmnch.org) is funded by Irish Aid through the Higher Education Authority (HEA) of Ireland for three years (2012-2015). Partners include: College of Medicine, Malawi; Concern Worldwide (Malawi and Ireland); Dublin City University; Royal College of Surgeons in Ireland (lead).

ABSTRACT NUMBER: 4.3

COMMUNITY LEADERSHIP FOR MATERNAL, NEWBORN AND CHILD HEALTH IN MALAWI

Walsh, A[1], Byrne, E [1], Matthews, A [2] , Mwale, D [3] , Manda-Taylor, L [3] , Phyriee, T [3], Mwapasa, V [3], Weiss, J [4], Brugha, R [1]
Royal College of Surgeons in Ireland, Dublin [1], Dublin City University, Dublin 2, College of Medicine, University of Malawi [3], Concern Worldwide, [4]

AIMS
The Community Systems Strengthening for Equitable Maternal, Newborn and Child Health (COSYST – MNCH) project explored the community systems factors underpinning maternal, newborn and child health (MNCH) services in Malawi. This presentation analyses the role of community leadership in influencing MNCH service utilisation.

METHODS
Case studies in two districts in Malawi were developed. Qualitative data were gathered from 80 in-depth interviews (with traditional birth attendants, community health workers, traditional and religious leaders, NGOs representatives and health workers) and 20 focus group discussions with male and female community members. Data were analysed thematically using Nvivo software.

RESULTS
Traditional leaders, particularly village chiefs, played a key role in implementing local and national MNCH policy, through acting as role models and using their influence to promote male involvement in MNCH services. Their influence was sometimes punitive, in the form of fining families if women delivered with a traditional birth attendant or en route to the hospital. While structures such as village health/development committees (VHCs/VDCs) operated well in some areas and gave leadership to guide MNCH service utilisation, they were often ineffective. Support for MNCH at the community level was more often in the form of informal individual/volunteer support. Although community based organisations (CBOs) and NGOs provided leadership in some areas, their roles were sometimes unclear to communities. In contrast, health surveillance assistants (HSAs) were trusted by communities and seen as providing an essential link between the formal and informal health system.

CONCLUSIONS
Links between the various community leaders – traditional and religious leaders, HSAs, CBOs/NGOs – should be fostered and coordinated through existing structures such as VHCs/VDCs. This will ensure visibility, accountability, and trust within the community. The capacity of such structures needs to be strengthened to enable them to fulfil their role in a culturally and ethically appropriate manner.

*COSYST-MNCH is funded by Irish Aid through the Higher Education Authority (HEA) of Ireland for three years (2012-2015). Partners include: College of Medicine, Malawi; Concern Worldwide (Malawi and Ireland); Dublin City University; Royal College of Surgeons in Ireland (lead).

ABSTRACT NUMBER: 4.4

THE EFFECTIVENESS OF A REHABILITATION AND EDUCATIONAL INTERVENTION ON CHILDREN WITH DISABILITIES AND THEIR GUARDIANS IN A PRIMARY HEALTH CENTRE IN URBAN UGANDA – A PILOT STUDY

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AIMS
A disproportionate number of children with disabilities live in low-middle income countries (LMIC's). Physiotherapy interventions have been shown to improve the management of children with disabilities in the developed world, although evidence is limited regarding their effect in LMICs. This study aimed to evaluate the effect of such interventions, through piloting rehabilitation camps for disabled children of the local community, building on previous research conducted in rural Uganda on child disability and societal beliefs.

METHODS
An experimental single group design was followed, using three pre and post-intervention measures (the GMFM-66, the WeeFIM and a guardian attitude questionnaire). Participants were 25 children with physical disabilities, who were recruited by experienced physiotherapists during prior home-visits to determine suitability. The intervention consisted of two 5-day rehabilitation camps, divided according to ability. Treatments involved individual therapy sessions and group-based activities, with daily educational workshops for guardians.

RESULTS
A sample of (n = 21) children completed the intervention. Analysis of GMFM-66 results indicated a statistically significant increase in total scores post-intervention ($p < 0.001$), with a mean difference of +3.336 for the sample. WeeFIM results showed a significant change in the "Mobility" subset ($p < 0.001$), with 71% of children exhibiting increased scores. Repeated guardian questionnaires (n = 20) showed changes in perceptions of disability and burden of care. All respondents felt the physiotherapy programme had benefitted their children.

CONCLUSIONS
Participants and guardians benefitted from an intervention aimed at improving physical function and education. Lack of physiotherapy resources in this setting have, to date, limited the level of functioning of disabled children within the community. Implementation of a sustainable physiotherapy service at the primary health centre may improve the quality of life of physically disabled children and reduce the mental and physical burden of their guardians.

ABSTRACT NUMBER: 5.1

NON DOCTOR QUALIFIED EMERGENCY SURGEONS ARE SAVING THOUSANDS OF LIVES IN RURAL ETHIOPIAN HOSPITALS

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ISSUES
To address the issue of shortage of surgical manpower, especially in the rural hospitals, a non- doctor Emergency Surgeon programme was started in Ethiopia in 2009. However this has not yet caught the attention of the Global Surgery project.

DESCRIPTION
A Masters programme to train non doctor midlevel health care workers in emergency surgery and obstetrics was started in Ethiopia in 2009, intending to overcome the human resource scarcity of trained surgeons within a short period of time, especially in the rural hospitals. Trained health officers / BSc nurses are recruited through entrance examination and then trained in a three years MSc course designed for producing emergency surgical officers, competent to perform emergency surgical and obstetrics operations. Integrated Emergency Surgical Officer (IESO) training programme started in 2009 in 3 universities and since been expanded to 11 universities. First batch of graduates qualified in 2012/13. Future Plan is to avail one IESO per 100,000 population area throughout the country.
Ethiopian Government has recently undertaken a massive hospital building programme throughout the country. In SNNP Region (population 26 million), from only 14 hospitals in 2001 now there are over 50 hospitals. In 2015 only 26 of these hospitals were carrying out emergency surgical / obstetric operations with 33 IESOs and only 11medically qualified surgeons / gynaecologists. As a result in many of these hospitals there are only IESOs.

DATA
Our UK team arranged an advanced skills course for IESOs in the SNNP region in November 2015. 24 IESOs could attend. We were keen to establish impact of the IESOs in the region. We found that between them they have already carried out about 4856 caesarean sections, operated for 562 ruptured uteruses and done 1366 laparotomies for various other indications. Thus potentially over six thousand lives (plus another 4500 new born lives) may have been saved by these IESOs in the last three years alone!

LESSONS LEARNT
Is there a lesson for other countries to learn from this?

ABSTRACT NUMBER: 5.2

SCALING UP SURGERY AT THE LEVEL OF DISTRICT HOSPITAL IN RURAL AFRICA; LESSONS FROM THE COST AFRICA PROJECT

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BACKGROUND
Shortages of surgical specialists are a major obstacle to increasing access to surgery in rural areas of sub-Saharan Africa, which has led to calls for training of clinical officers to undertake surgery at district hospitals. The COST Africa project enrolled 16 Clinical Officers into a BSc in Surgery at the College of Medicine, Blantyre, Malawi. National surgeons delivered the training programme, combining 6 months basic sciences and two years in-service training at district hospitals. COST-Africa is assessing the impact of surgically trained and supervised clinical officers on access to surgery at district hospitals.

METHODS
A mixed methods approach was used to evaluate the effects of the intervention. 16 district hospitals across Malawi's Southern and Central Regions were randomly allocated to intervention (receiving 2 trainees) and control arms (no trainees). Numbers of surgical procedures and surgical staff roles in intervention and paired control hospitals were collected using project-designed, extended theatre registers. The cluster randomised controlled trial design compared surgical performance (numbers of index surgical cases performed) in both arms of the study. Semi-structured in-depth interviews were used to explain observed differences and identify obstacles to scale-up of surgery.

RESULTS
Large and statistically significant increases in numbers of selected procedures – hernia repairs, hydrocele repairs and salpingectomies – were observed in intervention compared to control hospitals. In-depth interviews showed that in some intervention hospitals, greater scale-up was not possible due to shortages of staff (anaesthetists) or lack of essential supplies.

DISCUSSION
Deployment of surgically trained and supervised clinical officers to district hospitals is an effective way of increasing accessibility to surgery for rural populations. However, shortages of basic supplies such as water or electrical power can lead to underutilization of those cadres. Multi-facetted interventions that address health workforce and broader surgical systems factors are required for scaling-up of surgery in African districts.
Keywords: Surgery, clinical officers, task-shifting, surgical training, district hospitals.

ABSTRACT NUMBER: 5.3

COST-AFRICA IN ZAMBIA: EVIDENCE OF SAFE SURGERY BY TRAINED AND SUPERVISED MEDICAL LICENTIATES AT THE DISTRICT HOSPITAL

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INTRODUCTION
Training medical licentiates to undertake surgery at district hospitals is one model for addressing the unmet need for emergency and essential surgery in rural Africa. However, the Lancet Commission has cited concerns about safety and efficacy where medical licentiates (MLs) take on surgical cases for which they are not trained.

METHOD
Government MLs in Zambia were given additional training by COST-Africa to undertake selected surgical cases. They were tasked with recording and reporting cases conducted and adverse events related to surgery (peri-operative complications). Ten MLs, deployed to nine district hospitals, were supervised, supported and monitored by five provincial surgeons who conducted quarterly supervisory visits. Provincial surgeons submitted hospital visit reports and evaluated MLs' completed adverse event forms.

RESULTS
Operating theatre register data show that the trained MLs were performing surgical procedures for which they were trained. Preliminary analysis from 5 intervention hospitals reports total numbers and percentages of operations conducted by COST-Africa trained MLs: C-sections (44%), hernia repairs (65%), laparotomies (45%) and hydrocoelectomies (63%). Five intervention hospitals reported a total of 24 adverse surgical events, comprising: 14 obstetrical case events (12 pre-operative emergencies) and 10 general surgery case events (2 pre-operative emergencies). Analyses will report adverse event breakdown by type and by ML category. Supervising surgeons' evaluations reported that adverse events were generally handled correctly, except for some cases managed by non-COST-Africa staff.

CONCLUSION
The findings revealed the importance of training MLs in surgery and allocating them to district hospitals where they receive regular supervision and support from trained surgeons. The completion of adverse event forms by MLs and supervisory trip reports by surgeons is helping to build a culture of audit and safe surgery at district hospitals, which will be further explored through in-depth interviews.

Keywords: Safe surgery, medical licentiates, district hospital, supervision, provincial surgeons.

ABSTRACT NUMBER: 5.4

COST-AFRICA IN ZAMBIA: MEDICAL LICENTIATES AND THE PROVISION OF SURGERY IN RURAL DISTRICT HOSPITALS

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INTRODUCTION
Medical licentiates (MLs) – non-physician clinicians – play a vital role in addressing the unmet need for emergency and essential surgery in rural Africa. The extent to which MLs contribute to the delivery of surgery in district hospitals in Zambia is unknown. The COST-Africa project provided additional training for MLs in essential, elective and emergency surgery. After the training each ML was deployed to a randomly selected intervention hospital. Supervising surgeons provided mentorship and guidance in surgery based on quarterly visits and intermittent communication by phone.

METHOD
Theatre register data were collected and analysed from nine intervention hospitals to determine the contribution of MLs towards surgery. Overall numbers and types of major surgical procedures for a six to twelve-month period prior to ML deployment were compared to a similar follow-up period post ML deployment. The following procedures were used as a proxy for major surgery: hysterectomies, salpingectomies, hernia repairs, hydrocelectomies and laparotomies. Additionally the proportion of major surgeries performed by MLs at each hospital was calculated.

RESULTS
There was no major increase in terms of total number of surgeries performed after MLs deployment. However, hospitals reported an increase in major surgeries after ML deployment, ranging from 4.1% (Choma DH) to 87.8% (Siavonga DH). The percentages of major surgery undertaken by COST-Africa trained MLs ranged from 24% (Choma) to 76.5% (Siavonga). The most frequently performed procedures during the follow-up period were herniorrhaphy (82 procedures) laparotomy (41), hydrocelectomy (27), hysterectomy (17) and salpingectomy (7).

CONCLUSION
Notwithstanding the fact that the total numbers of surgeries performed did not increase significantly, ML deployment enhanced the capacity of district hospitals to perform major surgery. A supervision model overseen by consultant surgeons is vital for MLs to be effective in delivery of surgery.

Keywords: Medical licentiate, major surgery, rural Africa, Zambia

ABSTRACT NUMBER: 6.1

STRATEGISING WITH A TANZANIAN REFERRAL HOSPITAL: A CONTEXTUAL CHALLENGE

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ISSUES
Failure to align capacity/capability with systemic influences reflect an historical use of externally designed strategy templates that are acontextual, aprocessual and ahistorical. This coupled with cultural, political and educational incongruities and serious data limitations, adversely affect the development process.

INTERVENTION
A collaborative process in strategising involved key stakeholders at all Levels. This included internal and external Situational Analyses. Focus Groups of all Hospital Departments and User Groups were conducted with local facilitation and supervised recording and analysis. Interviews, accompanied by a Senior Clinical and an Administrative person, were undertaken with Owners, Faith Groups, and personnel at District, Region, Zone and Ministry Levels. Facilitated Workshops produced Mission, Vision, Values and Goals Statements that reflected the foregoing. A Strategy Implementation and Control phase identified priorities and actions with Owners/Managers such as alignment of strategic goals and operational tactics, and departmental profiling and metrics for performance management.

LESSONS FROM EVIDENCE
Project ownership and process management was a continuing challenge that reflected past reliance on externals to deliver. Passivity and limited levels of responsiveness in routine secondary data collection by Local & Affiliated Institutions are noted in the formal Report. Governance was constrained by historical centralism and fragmentation within and across service sectors and levels. This impacted on internal practices and role responsibility. Yet, a high level of participation in the internal Focus Groups and local User Groups was interpreted as an exceptional opportunity to express new insights that might influence service change.

NEXT STEPS
Urgently to develop systemic thinking and practices at all levels to enable sustainable systems including new ways of formal collaboration with developed systems. While improved Clinical and Organisational Governance Structures were proposed and are being addressed, the provision of professionally competent personnel, medicines, technology and accessibility are essentials in a Supply Chain that needs concerted action.

ABSTRACT NUMBER: 6.2

THE LINK BETWEEN MANAGEMENT PRACTICES, HEALTH PROFESSIONAL PERFORMANCE AND PATIENT OUTCOMES

Petros Gile, P

BACKGROUND
Management practices in hospitals influence health professionals' performance, quality of health services and patient outcomes. However, scant attention was given to show the link between these practices and patient outcomes. The study aimed at examining the link between specific management practices, employee performance and patient outcomes in hospitals.

DESIGN / METHODS
This study was conducted between June 2014 and July 2015. We reviewed Western literature to benchmark Western experiences and informing researchers and decision-makers in the healthcare industry.

RESULTS
The study identified hospitals as human capital intensive healthcare sector that needs effective management practice to enhance quality of health care outcomes. It also identified variations of management practices, particularly operations management and HR practices. It has shown that bundles of HR practices are pivotal in enhancing the attitudes, skills and behaviours of health professionals for better performance in rendering quality health services to meet expectations of patients. The study identified that patient outcomes are the results of employee performance which in turn is influenced by management practices.

CONCLUSIONS
Modern management practices are crucial for maintaining and sustaining health professionals' performance and improving quality of patient outcomes in hospitals. Thus, hospital managers should design and implement operations and HR management practices to improve health professionals' performance, resulting in improved quality of care that satisfies patients.

ORIGINALITY / VALUE
This is the first review to show the link between management practices, employee performance and patient outcomes in hospitals and to inform decision makers committed to improve employees', quality of patient outcomes and hospital performance.

Keywords: management practice, HR practices, operations management, health professionals' performance, patient outcomes, hospital

ABSTRACT NUMBER: 6.3

DATA DRIVEN HEALTH SYSTEMS STRENGTHENING REQUIRES CHANGES TO EXISTING CONCEPTUALIZATION OF HEALTH INFORMATION SYSTEMS – LESSONS FROM MALARIA SURVEILLANCE IN THE GAMBIA

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INTRODUCTION
Strengthening health systems to improve service delivery and reduce morbidity and mortality is an ongoing topical issue globally. Health information systems receive and report aggregated health facility data on health services delivered, morbidity and mortality that are often considered of poor quality and inadequate and therefore, of limited use in guiding health system strengthening efforts. This study shows how routine health facility data can be used to strengthen health system performance.

METHODS
A needs assessment was undertaken in 2008 to guide the implementation of measures to strengthen the quality of malaria data at six health facilities that were selected as malaria surveillance sentinel sites. The key interventions were training of laboratory staff to accurately diagnose malaria, revision of laboratory registers and collection of individual patient laboratory data from July 2008 to December 2012. The data was analysed and shared with national health programme managers

FINDINGS
Analysis of individual patient data provided far more valuable insight into malaria epidemiology than the usual aggregated data captured in the health management information system. Contrary to existing perceptions, the prevalence of malaria among febrile individuals was lowest among children under 5 years of age (9%) and highest among children aged 5 to 14 years (26%). Furthermore, even during the malaria season, most individuals with a fever did not have malaria. These findings contributed to a rapid change from presumptive diagnosis and treatment of malaria to mandatory confirmation of malaria before treatment in individuals with a fever or history of fever.

CONCLUSIONS
Existing health management information systems capture aggregated data indicating only the number of instances of a condition. Although some disaggregation occurs for instance, age and sex, the degree of disaggregation is often inadequate. Co-morbidities and quality of care are not reported. Documenting these requires special studies that are often infrequent and limited in scope.

RECOMMENDATIONS
Adapting health management information systems to capture individual patient data universally or at sentinel sites, depending on the context and available resources, is a key intervention to facilitate data driven health systems strengthening. The widespread and growing availability of relevant technology makes this both feasible and sustainable.

ABSTRACT NUMBER: 6.4

THE COST OF THE AFFORDABLE MEDICINE FACILITY-MALARIA IN THREE AFRICAN COUNTRIES

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BACKGROUND
The Affordable Medicines Facility - malaria (AMFm) was a programme developed by the Global Fund to increase the affordability and availability of quality assured Artemesinin Combined Therapies (QAACT). It involved price reductions through negotiations with QAACT manufacturers, a buyer subsidy through ACT co-payments at the top of the global supply chain and national supporting interventions to increase QAACT use.

AIM
We aimed to estimate the cost of this private sector subsidy in three countries that exhibited greatest variability in performance and geographical location.

METHODS
A cost-consequence analysis as performed for the years 2009-2012 in Kenya, Madagascar and Nigeria. An activity based costing was conducted from a funder perspective through field visits comprising key informant interviews and financial records review. Sensitivity analysis was also performed.

RESULTS
Kenya was the best performer with the highest increase in availability and largest decrease in price of QAACT at consumer level. Madagascar was a poor performer and Nigeria moderate. The total financial cost Nigeria was $106 million, Kenya $39.9 million and Madagascar $5.9 million. The economic cost per capita in Kenya was highest at $0.43 and lowest in Madagascar at $0.12. In contrast, the cost per dose delivered was highest in Madagascar at $2.28 and lowest in Nigeria at $1.29.

CONCLUSION
This cost analysis demonstrated important variation across countries, mainly driven by the total volume of co-paid QAACTs delivered to the private sector. In all three countries, AMFm seems to be affordable when compared to other funding sources.

ABSTRACT NUMBER: 7.1

INCREASING ACCESS TO CLEFT SURGICAL SERVICES THROUGH HOSPITAL PARTNERSHIP MODEL

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Smile Train, USA1, Baylor College of Medicine, USA2

ISSUES
There is a startling gap between accessibility of surgical services and need in the developing world, where an estimated 170,000 children are born each year with cleft lip and/or palate. The lack of trained surgical teams and expense of surgical care pose major obstacles to these children accessing safe reconstructive surgery and ancillary treatment services.

DESCRIPTION
Smile Train is an international children's charity that addresses the burden of cleft lip and palate by partnering with local hospitals and medical professionals and empowering them to provide comprehensive cleft treatment for patients in their own communities.

LESSONS LEARNED
Smile Train's model is a safe, scalable, cost-effective way to address the burden of cleft lip and palate surgical disease. Since 1999 Smile Train has provided over 1,150,000 surgical interventions for cleft and millions of ancillary treatments such as speech therapy and orthodontia. Alternative models of treating surgical disease can be costly and difficult to scale, may disempower local medical professionals, disrupt health systems, force patients to wait months for treatment, or lack follow-up care services.

DATA
Smile Train has significantly scaled its programs over 15+ years to more than 1,100 facility partners and 2,200 surgical partners in more than 70 countries. More than 30,000 education and training opportunities have been provided to surgeons, anesthesia providers and nurses. The mean economic impact of surgical interventions ranged between $5,510 and $50,634 per person. Additionally, Smile Train's work has elevated the safety and quality standard of surgical care for cleft patients and other patients receiving surgery in partner hospitals.

NEXT STEPS
Smile Train's model and the insights gained in building capacity for safe, high-quality cleft surgical treatment are immense and should be considered for other types of surgical disease throughout the developing world.

ABSTRACT NUMBER: 7.2

ASSESSING THE QUALITY OF CLEFT SURGICAL OUTCOMES IN THE DEVELOPING WORLD

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ISSUES
There is significant variability in the quality of cleft lip and palate surgical outcomes and no consistent set of quality metrics utilized to analyze outcomes in the developing world.

DESCRIPTION
Smile Train has developed a comprehensive outcomes quality review process which makes it possible for the organization to assess the quality of the surgeries being performed by Smile Train partner surgeons. The organization carefully tracks the treatment of every surgical patient through its online patient medical record database, Smile Train Express.

LESSONS LEARNED
The Smile Train Express database securely stores confidential patient medical records for every patient treated at Smile Train partner hospitals. Using the records in the database, a team of experienced surgeons from around the world assesses the quality of each surgical outcome through a blind review process. In the review process, each patient medical record is numerically rated on the severity of the cleft and quality of the post-operative result. For cleft lip repairs, scores are averaged into an overall composite score based on pre-operative severity and post-operative result, whereas cleft palate repairs are assessed on a pass/fail basis. The records are then evaluated by multiple surgeon reviewers to ensure accuracy and decrease reviewer bias. Reviewers have the option to "flag" problematic cases and contact surgeons directly with questions on surgical method and outcomes. Surgeons who consistently receive failing scores are evaluated for inclusion in training programs and, if low scores persist, may be removed from partnership programs for the purposes of maintaining safety and quality standards of cleft care.

DATA
The Smile Train Express database contains more than 1,000,000 medical records from over 85 countries. Records are evaluated by multiple surgeon reviewers whose inter-rater reliability is within 1-2 percentage points.

NEXT STEPS
Smile Train's innovative system of collecting online patient medical records and assessing the quality of surgical outcomes could be applied to other types of surgical disease and treatment programs.

ABSTRACT NUMBER: 7.4

BARRIERS TO ACCESSING TIMELY SURGICAL CLEFT CARE: A MULTI-SITE, CROSS-SECTIONAL OUTCOMES STUDY IN VIETNAM

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BACKGROUND
Most people who lack adequate access to surgical care reside in low- and lower-middle income countries. However, few studies have analyzed the barriers that determine ability to access surgical treatment. In this study, we seek to determine which barriers prevent access to cleft care in a resource-limited country.

METHODS
A cross-sectional, multi-site study of families accessing care for cleft lip and palate deformities was performed in Vietnam in November 2014. A survey instrument containing validated demographic, healthcare service accessibility, and medical/surgical components was administered to all participants. The main patient outcome of interest was receipt of initial surgical treatment at a cleft care site prior to 18 months of age, and multivariable regression analysis performed.

RESULTS
Among 884 total households presenting to a cleft mission site, 448 (51%) households completed the study. Two hundred sixteen (48%) patients accessed surgical care prior to 18 months of age. Males (n=140, 65%) were more likely to access timely surgical care than females (n=76, 35%; p = 0.005). Parents with education greater than secondary school had a higher likelihood (n=126, 61%) of their child accessing timely care than those who did not (n=112, 50%, p=0.001.) Distance and associated cost of travel, to either the nearest district hospital or to the cleft surgical mission site, were not associated with timing of access. In adjusted regression models, education status of the patient's father (OR 1.64; 95% CI 1.1-2.5; p = 0.019) and male sex (OR 1.61; 95% CI 1.1-2.4, p = 0.026) were both significantly associated with timely access to care. In a sensitivity analysis considering care received prior to 24 months of age, cost to attend the surgical mission was additionally associated with timely access to care; no factors influenced care prior to 12 months of age.

CONCLUSION
Half of Vietnamese children do not access surgical cleft care prior to 18 months of age. Barriers to accessing care appear to be social as much as geographical or economic, which may have implications for policies aimed at reaching vulnerable patients earlier.

ABSTRACT NUMBER: 8.1

PARTNERSHIPS FOR COMMUNITY CAPACITY BUILDING: A STUDY OF THREE COMMUNITY HEALTH COMMITTEES IN NORTH RUKIGA, UGANDA

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ISSUES
In line with good health promotion practice, community health committees work towards the empowerment of communities to improve control of health actions. Though these committees are frequently used within health programmes, little is known about how to best implement these committees and incorporate partnerships between the community and other stakeholders.

DESCRIPTION
World Vision Ireland implements their Access – Infant and Maternal Health Programme (AIM-Health) across 10 contexts in 5 sub-Saharan African countries (Uganda, Kenya, Tanzania, Sierra Leone and Mauritania), with the objective to reduce maternal and child mortality and increase community capacity to respond to health issues. This programme consists of a multilevel approach using community health workers, community health committees (COMMs) and Citizen Voice and Action (CVA) teams. However, there is a lack of understanding surrounding the implementation of the COMMs and how they work in practice to increase community participation and work towards capacity building.

LESSONS LEARNED
Community members and health centre staff can have strong partnerships that work towards increasing community control over health actions. The success of these partnerships depends on several things: internal group functioning (communication, shared values and vision, formalised processes, committed members); external support (trainings, linkages, motivation and incentives) and community/stakeholder receptiveness. Issues may arise around lack of transparency, diversity of membership, political agendas, and if committees are based out of higher level health centres.

DATA
These lessons were derived from a study conducted in North Rukiga Uganda with three COMMs, comprised of: focus group discussions (n=9), semi-structured interviews (n=12), key informant interviews (n=6), capacity assessment (n=118), Coalition Self-Assessment Survey (n=21), document review and observations.

NEXT STEPS
Findings from this work have two main implications. First, a similar study will be conducted in Tanzania to understand the influence of context and draw more transferable findings. Second, these lessons will be important for World Vision's future implementation of the COMM component.

ABSTRACT NUMBER: 8.2

MENTAL HEALTH AND PSYCHOSOCIAL INTERVENTIONS FOR CHILDREN AND ADOLESCENTS IN STREET SITUATIONS IN LOW- AND MIDDLE-INCOME COUNTRIES; A SYSTEMATIC REVIEW

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AIMS
This paper systematically evaluates mental health and psychosocial interventions delivered to children and adolescents in street situations (CASS) in low- and middle-income countries (LAMIC). This review has three research questions; 1. What mental health and psychosocial interventions are available to CASS? 2. Are these interventions effective in improving mental health and/or psychosocial outcomes? 3. What are the long-term outcomes of these interventions?

METHODS
The search strategy examined four different databases, grey literature, hand searching through references and emailing expert authors in this field. There were four inclusion criteria for this review; studies had to involve a description of an external mental health and/or psychosocial intervention/ treatment (i.e. outside of the home), must be focused in a LAMIC, must be focused on CASS, and must empirically evaluate the effectiveness of the intervention described.

RESULTS
Five studies were included that met the inclusion criteria. Interventions consisted of a multidisciplinary care approach, a residency strep programme, resilience training, emotional regulation training and FORNET. Interventions measure a range of outcomes, such as substance use, PTSD, psychological distress, sleeping arrangements, reintegration, appetitive aggression, emotional regulation and the number of offenses committed.

CONCLUSION
There are not enough high quality rigorous evaluations of mental health and psychosocial interventions delivered to CASS in LAMIC. Yet, the results suggest that it is possible to deliver effective interventions to this population. Better measures must be used to increase validity and reliability of future studies, taking the complex needs of CASS and their cultural context into account.

ABSTRACT NUMBER: 8.3

ASSESSING THE IMPACT OF GOAL'S COMMUNITY LED TOTAL SANITATION (CLTS) IN SIERRA LEONE

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BACKGROUND
GOAL's objective in Sierra Leone is to improve sanitation coverage and hygiene behaviour (use of latrines, disposal of children feces and washing hands with soap) in communities through the CLTS approach. CLTS is a participatory, bottom-up approach that prompts self-realization among community members that open defecation is the primary cause of many diseases and health hazards. CLTS involves no hardware subsidy and does not prescribe latrine models.

METHODS
A mixed methods non-experimental design was used to assess the effectiveness of CLTS in 8 Chiefdoms in Sierra Leone from 2011 – 2015.

RESULTS
73.7% of total 274 household surveyed have built their own latrine during the past 5 years own as a result of CLTS approach. Information gathered through interviews and focus group discussions indicate that insufficient attention was given to maintenance and durability of building materials used which resulted in rapid deterioration of pit latrines. A majority of respondents in householdssurveyed (99.6%) consider that using a latrine made their families healthier. Health statistics capturing prevalence of waterborne diseases in 8 Chiefdoms under the program (2011 up to 2015) do not show any major difference in trend – a decline in 2012/2013 is followed by a rise in all programme Chiefdoms. Comparison of 8 programme Chiefdoms to other Chiefdoms in Kenema district show a similar trend. However, data show the decline is quicker and more stable in 8 programme Chiefdoms (treatment group) compared to non-programme Chiefdoms (comparison group).

CONCLUSIONS
While demand for improved household sanitation has been created through CLTS, sustaining and further improving household sanitation infrastructure is beyond current capabilities of communities.

INTERPRETATION
Sustainability of CLTS is closely linked to partnership with and leadership by local Government structures in project design and delivery. Also provision of assistance and support to SMEs is necessary to ensure sanitation solutions and hardware are effectively marketed in rural areas.

ABSTRACT NUMBER: 8.4

SEEKING CARE FROM A TRADITIONAL HEALER AFTER INJURY IN SUDAN AND FORMAL HEALTHCARE AVAILABILITY: EXPLORATORY ANALYSIS OF A NATIONAL SURVEY

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AIM
To investigate the factors associated with seeking care from a traditional healer in the first week after injury in Sudan and whether any associations are modified by the doctors' density in their state of residence.

METHODS
We used data from the Sudan Household Health Survey of 2010 that interviewed a multistage cluster sample of 15,000 households stratified by state and urban/rural setting. The survey collected data on injury in the 12 months before the survey, its cause, healthcare received and disability. The analysis included only those whose most recent injury occurred more than three months before the survey to filter out non-serious injuries. The dependent variable was whether the injured person sought care from a traditional healer in the first week. The independent individual-level variables tested were age, gender, area of residence (urban/rural), socioeconomic status, educational level and cause of injury. Mixed effects logistic regression was used to test for effect modification by the doctor per 1000 population (proxy to formal healthcare availability) of the injured person's state from the Sudan Health Workers Survey 2006.

RESULTS
Of the 875 injured people included, 32% sought care at a traditional healer in the first week after injury. At the lowest doctors' density, a unit increment in wealth index score was associated with 36% lower odds of attending a traditional healer for injury. As doctor density increased by 1 per 1000, the relative odds further decreased by 73% (interaction p-value based on likelihood ratio test = 0.045).

CONCLUSION
Poorer people were more likely to resort to traditional healing after injury and this was augmented by seemingly higher healthcare availability at state-level, underscoring the role of financial, geographical and cultural accessibility. Clearer evidence on the impact of health care availability may be obtained if the latter is examined at a lower geographical level.

ABSTRACT NUMBER: 9.1

TRAINING SURGICAL PROVIDERS IN SUB-SAHARAN AFRICA

Lane, RHS 1 , Ndonga, AK 2 , Zulu, R 3
ASGBI. UK 1, COSECSA, Kenya 2, COSECSA, Zambia 3

ISSUES
Demand for surgical care in s-SA is not being met mainly due to lack of surgical providers.

DESCRIPTION
To support surgical training in the Region, ASGBI and COSECSA were jointly awarded a grant from the UK Government to provide six innovative "Management of Surgical Emergencies" Courses with appropriate Train the Trainers elements to ensure sustainability and six Theatre Nurse Training Courses. The Partners initially learned much with regard to Trainer selection, programme content, animal material, timekeeping and, most important of all, a feasible assessment process to ensure that the Course was fit for purpose.

LESSONS LEARNED
Restrict the Trainees to 18. Provide fliers incorporating what the Course involves and, more importantly, what it does not! Provide as much pre-Course information as possible i.e. manual, USB with course materials, online reading matter etc. The assessment process must be feasible and allow support for poorly performing trainees. Team working amongst Faculty is vital for success and this is why time keeping is so important. The Dean/Superintendent and Ministry of Health should always be involved together with local press so that there is wide coverage.

DATA
This included pre and post course MCQ's, pre and post Course Confidence levels, assessment in the educational domains of knowledge, judgement and decision making, technical skills, communication and teamwork. All participants, completed evaluation forms which were assessed and appropriate changes made. Six months post course trainees were asked what impact the Course had made upon their surgical practice. Objective assessment was provided by their onsite trainers.

NEXT STEPS
Publicise courses widely. All participants demonstrated that such a Course was fit for purpose and highly popular. The aim is to make the MSE Course mandatory for FCS Trainees across the board.

ABSTRACT NUMBER: 9.2

PHASE 1 OF A PIONEER GENERAL SURGERY TRAINING PROGRAMME IN EQUATORIAL GUINEA

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ISSUES
Equatorial Guinea is a small country located on the African west coast. It has a precarious health system, due mainly to the low number of qualified human resources. The only medical school belongs to the National University of Equatorial Guinea (UNGE). There is no specialist training programme and the number of general surgeons in the whole country is currently below 10.

DESCRIPTION
The aim of the project is to start a training programme for the basic specialities, including general surgery. An agreement was signed with the UNGE. The Ministry of Health is also promoting the program, acting as partner.
Phase 1: Included motivating medical students, junior doctors and surgeons. 3 medical congresses were organized and performed with their collaboration and active participation. The congresses consisted in lectures, seminars and the first live surgery ever performed in that country.
Phase 2: Based on the concession and execution of medical grants for local surgeons to stay in Spain for several 6 week periods to learn how surgery training programmes work.
Phase 3: Implementation of the surgery training program in Equatorial Guinea with the collaboration of Spanish and Guinean surgeons.

LESSONS LEARNED
Motivating local surgeons was the key to the success of first stage, and building the project with their collaboration proved to be another basic strategy.

DATA
Phase 1 started in 2012, with the first congress. About a hundred doctors have been involved in the different scientific meetings. Phase 2 is currently in progress, after the success of this phase in other specialities such as paediatrics and anaesthesia.

NEXT STEPS
Phase 3 will start after several Guinean surgeons complete their periods in Spain, to become qualified consultants in order to teach future surgery interns.

ABSTRACT NUMBER: 9.3

THE CONCEPT OF 2ND CHANCE RECONSTRUCTIVE SURGERY WORKSHOPS: LESSONS LEARNED FROM THE PAST AND FUTURE PERSPECTIVES

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ISSUES
The training programs in Reconstructive Surgery in many African countries are sparse and most of the time not precisely established. In consequence, numerous reconstructive surgery are performed by overseas associations.

DESCRIPTION
2nd Chance is a Swiss association which provides workshops on specific topics from the very basic to complex reconstructive surgery techniques. The aim of these 5-day workshops, organized twice a year in a different country, is to teach reconstructive surgery to African surgeons. The workshop provides theoretical, clinical and practical approach offering each trainee the possibility to actively participate and interact with expert at every step of the surgical patient management. The Association is dedicated to teach the perioperative medicine (including information to the patient, inform consent, WHO checklist, anesthesia, immediate and delayed postoperative care. The long term follow up of the patient is organized with the local surgical team.

LESSONS LEARNED
Subjectively, the short and long term feedback from the participants are usually excellent. Objectively, we are not yet able the measure the overall impact of our workshop on training of Reconstructive Surgery in Africa. The integration of the workshops into the College of Surgeons of East, Central and Southern Africa training programs was made compulsory in 2015 under a partnership agreement.

DATA
2nd Chance has trained in basic and most complex technics some 78 participants since 2013. From them, 8 are performing reconstructive surgery as their main activity. We don't have valid data concerning activities in reconstructive surgery of the remaining 70.

NEXT STEPS
The selection process of the participant is crucial for the outcome and must be establish carefully regarding the knowledge, the position and the motivation of the candidate. A database of the different national reconstructive curriculum and the long term follow up of the participants regarding their evolution and their practice should be established.

ABSTRACT NUMBER: 9.4

ONLINE ACADEMY AS AN E-LEARNING TOOL FOR SURGICAL RESIDENTS, A PILOT STUDY

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INCISION Academy

AIMS
This pilot was conducted to investigate the effect of INCISION e-learning as a learning guide to help individual surgical residents prepare efficiently for practical work in the operation room and bring structure and speed into surgical training curricula.

METHODS
The pilot was conducted in Indonesia at three universities, i.e. Universitas Indonesia (UI), Universitas Airlangga (UNAIR), and Universitas Gajah Mada (UGM). The intervention group (N=7) used an open abdominal hysterectomy INCISION e-learning module, while the control group (N=7) used familiar conventional teaching approaches. The outcomes were measured with knowledge tests before and after the intervention, a modified Ritzman questionnaire and a direct observation of procedural skills (DOPS). Data were analyzed descriptively, and followed by analysis using Mann-Whitney U and Wilcoxon signed-rank test.

RESULTS
This pilot study shows that the INCISION e-learning is useful (86%), comprehensible (82%) in use and that the online content was helpful for their understanding (88%). The residents also feel more confident in their surgical knowledge (82%) and used their OR time more efficient (81%) after following the INCISION approach.
Based on the results of the Mann-Whitney U test, the average value of post-test is greater in the intervention group than in the control group ($p=0.046$), where the results of the pre-test showed no difference in knowledge and skills between the groups ($p=0.561$). The Wilcoxon signed-rank test found that there was no significant difference between pre and post-test in the control group ($p>0.05$), but a significant increase in the intervention group ($p=0.025$).

DISCUSSION
This pilot study showed an increase in knowledge using the INCISION e-learning module, and increases the likelihood of success in future studies. The lack of internet access in more remote area is an important factor to keep in mind.

ABSTRACT NUMBER: 10.1

THE COST OF DISTRICT-LEVEL SURGERY IN MALAWI AND FORECASTING THE COST OF SCALE-UP

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AIMS
The College of Medicine in Malawi has been providing training in surgery to clinical officers as part of the COST-Africa project. The project aims to demonstrate the (cost) effectiveness of increasing surgical capacity in rural Malawi and Zambia, including establishing the costs of district-level surgery and cost implications of scaling up surgery.

METHODS
We collected data from three district hospitals for the financial year 2013/14. Using the step-down allocation approach, we calculated the total cost of surgery and the units cost of common procedures. Using a dynamic model, we calculated the cost of different scenarios for scaling up surgery.

RESULTS
The total cost of delivering surgery per annum was similar at Mulanje and Mangochi district hospital (around US$335,000), but was twice as high at Nsanje hospital. The direct cost of surgery ranged from US$ 62,305 to 92,127, representing 10% to 27% of the total cost. Transport and post-surgical care are the main cost-drivers. The unit cost of a C-section was $161 at Mangochi and $261 at Mulanje hospital. Scaling up surgery by 50%, would raise total costs by 22% to 28%, while the unit cost of a C-section would be reduced by 11% to 16%.

DISCUSSION
The cost of providing surgery at district hospitals shows variations both in terms of total cost and unit costs, partly due to differences in bed-occupancy and patients' duration of stay. Surgery at Nsanje hospital is estimated as most expensive because its staff and bed capacity are underutilised. Increasing the volume of surgery by 50% would have a modest effect on total cost and would lower the cost per surgical case. We assumed no constraints to scaling up surgery, such as non-functional equipment or shortages of essential supplies or surgical staff. Increasing surgery at district-level hospitals, using surgically trained and supervised clinical officers, is potentially cost-effective.

Clinical Officer Surgical Training in Africa (COST-Africa), funded by the European Commission Seventh Framework Programme for research; technological development and demonstration under grant agreement no [266417]

ABSTRACT NUMBER: 10.2

QUALITY OF LIFE IMPROVEMENTS IN PATIENTS WHO UNDERWENT HERNIA REPAIRS BY COST - AFRICA TRAINED CLINICAL OFFICERS IN MALAWI

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BACKGROUND
Shortages of surgeons in rural regions of sub-Saharan Africa have resulted in task-shifting and training of clinical officers to undertake common surgical procedures at district hospitals. In Malawi, COST Africa enrolled 16 clinical officers (COs) into a BSc in Surgery at the College of Medicine, Blantyre. An aim of COST-Africa was to assess surgical outcomes, which included quality of life measures on patients who had undergone mainly elective inguinal, femoral and umbilical hernia repairs by trained COs in district intervention hospitals.

METHODS
Prior to discharge home, COs administered a face to face modified hernia-related quality-of-life (QoL) survey tool (HerQLes) to patients who had undergone a hernia repair to measure their pre-operative QoL. The scale had 12 items, reflecting impact on different dimensions of quality of life relevant to the local population. It included three-point response options (0-2): 0 = no symptoms, 1=moderate and 2=severe symptoms. The tool was administered again three months after the operation (via a phone call). Mean scores were compared for the two time points.

RESULTS
Analysis was conducted on an initial 46 patients who completed the baseline and post-herniorrhaphy follow-up surveys. A paired T-test was used to compare mean pre- and post-scores, which showed a large improvement in QoL: mean score at baseline = 11.02 (SD 6.68) and follow-up = 2.69 (SD 3.46). This was statistically significant different: $t(45) = 7.328$, $p<0.0001$. No surgical death as a result of hernia operation was recorded.

DISCUSSION
Initial results from district intervention hospitals suggest that trained and supervised clinical officers can perform surgical hernia repairs safely and effectively. A similar pre- and post-QoL comparative outcome study is being conducted on hernia cases undergoing surgery at the referral hospital in Blantyre.

ABSTRACT NUMBER: 10.3

EVIDENCE OF INCREASING IATROGENIC GENITAL FISTULA IN LOW-INCOME COUNTRIES

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ISSUES
Evidence is emerging that iatrogenic causes contribute significantly to the burden of genital fistula in low-income countries (LIC). A 2014 review of 5,959 fistula cases from 11 sub-Saharan African and South Asian countries documented 13.2% as iatrogenic, associated with Cesarean section, ruptured uterus and hysterectomy [Raassen et al. 2014].

DESCRIPTION
The Fistula Care Plus (FC+) project at EngenderHealth is a USAID-funded initiative to prevent and treat genital fistula, bridging fistula care, maternal health, and global surgery, including through partnerships with 33 fistula repair sites in six countries. In total, EngenderHealth/USAID have supported over 33,000 fistula repair surgeries. FC+ and partners examined the distribution of iatrogenic fistula at project sites, including case reviews in Bangladesh, Democratic Republic of Congo (DRC), and Niger.

LESSONS LEARNED
Given the preventability and severity of fistula, iatrogenic fistula data indicate the urgency of improved surgical training, supervision, and facility capacity, particularly amidst increasing rates of Cesarean section and gynecologic surgery in LIC. Data also indicate need for consistent definition of iatrogenic fistula.

DATA
Routine/survey data from project-supported repair sites document iatrogenic fistula across countries, with wide variation in the proportion of cases identified as iatrogenic among sites and countries. In-depth reviews found that 27% of 450 fistula cases in Bangladesh, 8.3% of 566 cases in DRC, and 9.9% of 724 cases in Niger were iatrogenic. Procedures associated with iatrogenic fistula also varied among countries. In Bangladesh most iatrogenic fistula resulted from hysterectomy, compared to Cesarean sections following prolonged/obstructed labor in DRC and Niger.

NEXT STEPS
Important actions for the global surgery community of practice within obstetrics/gynecology and fistula include:
- Consensus on definition and classification of iatrogenic fistula
- Strengthened training, surgeon supervision, postoperative monitoring and reporting of adverse iatrogenic events for Cesarean section and hysterectomy.
- Facilitation of a minimum acceptable standard of surgical care in LIC.

ABSTRACT NUMBER: 10.4

SURGICAL EDUCATION AND SYNERGY: ACADEMIC, FINANCIAL, MATERIEL, AND HUMAN RESOURCE BENEFITS OF AN ORTHOPAEDIC SURGICAL TRAINING PROGRAM AT AIC KIJABE HOSPITAL

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ISSUES
Though safe surgical and anesthetic capacity have recently been recognized by the global health community as important determinants of health outcomes in low and middle income countries (LMIC), scant literature exists as to how surgical training systems impact the training hospital itself.

DESCRIPTION
AIC Kijabe Hospital is a medium-sized teaching hospital located in rural Kenya. The hospital has established surgical training programs in general surgery, paediatric surgery, paediatric neurosurgery, and orthopaedic surgery. The presence of these training programs has led to synergies and partnerships with significant financial, materiel, human resource, and academic benefits to the hospital. In particular, the collaborations established with the orthopaedic training program have benefitted the hospital significantly over the past three years.

LESSONS LEARNED
Surgical education programs in this rural hospital have created collaborative synergies with multiple African and American Universities, with industry, with major donors, as well as facilitated engagement with multiple individual surgical educators. The academic environment created, in combination with marked improvement in equipment and infrastructure, have led to excellent retention of surgeons trained by the hospital.

DATA
We describe multiple academic partnerships, engagement with health care equipment manufacturers, recruitment of major donors for infrastructure development, funded externships, academic presentations and publications, financial and equipment donations, recruitment of volunteer surgical trainers, and retention of national orthopaedic surgeons at AIC Kijabe Hospital.

NEXT STEPS
The anticipated financial, materiel, human resource, and academic benefits of surgical training programs should be included in the cost/benefit analysis of initiating surgical training at both the hospital and health system level. Further research is needed to prospectively quantify these benefits as surgical training programs are introduced to hospitals in LMIC.

ABSTRACT NUMBER: 11.1

PARTNERSHIPS FOR SURGICAL AND ANAESTHESIA TRAINING IN TIMOR LESTE

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BACKGROUND
Timor Leste had 400 years of Portuguese Colonial rule, then 24 years of resisted occupation and a destructive withdrawal by the Indonesian military. The Health system was left largely non-functioning after the withdrawal of the skilled Indonesian doctors and the nursing leadership. There were but 20 Timorese doctors for the whole nation. The country gained independence in May 2002, and the population has grown to 1.2m (2014) with a GDP of $1.4bn.

METHODS
This paper provides an analysis of RACS specialist support from 2001 to 2015. Three programs were designed collaboratively by The Royal Australasian College of Surgeons (DS,DW, DM, GG), Timor Leste Department of Health (NM) and Australian Aid (formerly AusAid, now DFAT). The RACS team began to provide 24/7 surgical services in the capital, Dili, in July 2001 (GG). The initial challenge was to provide surgery and anaesthesia clinical services to the capital. The arrival of the Cuban Medical Teams made available undergraduate medical training both in Cuba in Timor Leste, whilst the RACS program offers specialist medical training.

RESULTS
Australian Aid provided $20m through 3 continuous programs. In the first 10 years over 10,000 operations were performed by the teams and the Timorese trainees. In 2001 10% of operations were done by the trainees. With increasing skills this rate increased to 51% in 2006 and exceeded 90% by 2010. To-date 7 Timorese doctors have gained specialist qualifications from regional medical schools in PNG, Fiji, Indonesia and Malaysia (5 surgery, 1 ophthalmology, 1 anaesthesia). The development of In-country diploma training has seen 23 nurse anaesthetists graduate, sufficient to cover each hospital. Other graduates of the local, 18month-diploma program for doctors which commenced in 2012, include 10 in paediatrics, 5 anaesthesia, 3 surgery and 3 ophthalmology. In 2014-2015 48 trainees enrolled in a Family Medicine Diploma, 10 of whom transferred to paediatrics, surgery, or anaesthesia.

CONCLUSIONS
Over the last 15 years Timor Leste's hospital system which was in disarray, has developed increasing levels of surgical and anaesthetic self-sufficiency. This was the result of multi-level collaboration between the National Ministry of Health and University (UNTL), with sustained, consistent support and input from External Donors such as Australian Aid, Cuba and RACS. None of this would have been achieved without the determination to succeed in postgraduate medical training and acquisition of professional skills by Timorese doctors.

ABSTRACT NUMBER: 11.2

TRUST IN GOD AND KEEP YOUR POWDER DRY: POLITICS & POLICY PROCESSES IN GLOBAL HEALTH PARTNERSHIPS, THE CASE OF GAVI, THE VACCINE ALLIANCE

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AIMS
This paper adopts a retrospective policy analysis of the period leading to the emergence of GAVI, the Vaccine Alliance in 2000. Heralded as a new partnership for the 21st Century guided by the goal to immunise every child, this paper details how GAVI's formation had as much to do with politics, negotiation and influence of different policy coalitions as it did with evidence-based decision-making.

METHODS
A qualitative, intrinsic case study methodology was used. In-depth interviews (n=36) were conducted with key senior stakeholders involved with the emergence and/or evolution of GAVI and a related global initiative. Additional documentary data, e.g. archives, evaluations, meeting reports, were reviewed for triangulation of findings. Data was managed, thematically coded and analysed through NVivo qualitative data analysed software.

RESULTS
The organisational design and policy priorities of GAVI at its launch reflected the policy priorities and intervention strategies of a small vaccine coalition with roots in early 1980s efforts to scale-up Hepatitis B immunisation. While this coalition prevailed in the competition to define the new organisation, concessions were negotiated by opposing powerful actors and the large funding pool immediately available to the organisation ensured buy-in from reluctant partners. Opportunities for future challenges by those with a competing vision for global health, and who later attempted to redirect the organisation, were also incorporated within the organisational design and policy goals.

DISCUSSION
Even when sharing the same goals, global health actors often hold competing visions of how they are to be achieved and engage in strategic and political actions in an effort to make such partnerships an agent of their particular priorities and visions. While much public health and health policy research treats politics as separate from policy, findings from this research suggest that politics is of fundamental importance to understanding global health partnerships and policy processes.

ABSTRACT NUMBER: 11.3

A SIMPLE MODEL OF COMPLEX CLINICAL SKILLS EXCHANGE!

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AIM
To provide local clinical teams in Children's Hospital #2 with the necessary skills mix to effectively deliver a cardiac, oncological and anorectal surgical program.

Operation Childlife (OCL) is a registered Irish Charity that has effectively delivered a Paediatric Open Heart and other surgical, anaesthetic and nursing programs to Children's Hospital # 2(CH#2), Ho Chi Minh City, Vietnam. Working on the basis of scaled development with increasing emphasis on enhancing local experience, independence and skill OCL has over the past 5 years enabled over 1300 Paediatric open heart procedures to be performed at CH#2. The model utilizes a progressive increase in complexity beginning with simple procedures with a view to total self-sufficiency. This necessarily involves specialization within nursing, anaesthesia, cardiology in addition to paediatric cardiac surgery. The level of complexity is significant and can only be effective in the presence of ongoing interactive training where all involved spend periods of training in Ireland, where there is ongoing discussion of complex cases with the tertiary centre in Ireland and frequent local visits to deal with progressively more difficult cases. This also includes an organizational caveat that progress into high risk patients is only on the basis of mutual agreement driven by sustained outcomes and the acquisition of greater skill and experience as monitored and directed by the tertiary centre.

In parallel to developments in paediatric cardiac surgery OCL has similarly provided expertise and skill in training local teams in the safe and effective management of congenital anorectal conditions, lung resections and surgical oncology (liver, renal) and oesophageal replacement. Ongoing and regular involvement provides for sustainability and dynamic mentoring and importantly the most appropriate time to exit.

Key Words: mentored skill development, Paediatric cardiac, anorectal, oesophageal and oncological surgery.

ABSTRACT NUMBER: 11.4

A PREDICTIVE SCORE FOR THE DIAGNOSIS AND OUTCOME OF EBOLA VIRUS DISEASE

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BACKGROUND
The non-specific symptoms of Ebola Virus Disease (EVD) pose a major problem to its triage and clinical management. The current triage protocol incorrectly classified over 50% of patients as "high-risk", and was speculated as danger for nosocomial EVD infection. A better understanding of the statistical relevance of individual triage symptoms to the diagnosis of EVD is essential in settings where rapid, in-depth diagnosis is often unavailable. Further, there is a need for more accurate prognostic tools that objectively stratify mortality risk to better allocate limited resources and identify those most in need of intensive treatment.

METHODS
This retrospective cohort study analyses the clinical characteristics of 566 EVD(+) patients at the GOAL-Mathaska Ebola Treatment Centre in Sierra Leone. The diagnostic and prognostic potential of each characteristic was then analysed and incorporated into statistically weighted disease scores designed to detect EVD as well as discriminate malaria infection and predict mortality.

RESULTS
Of the 566 patients, 26% were EVD(+) and 35% were malaria(+). Malaria was 2-fold more common in EVD(-) patients ($p<0.05$), and thus an important differential diagnosis. Univariate analyses comparing EVD(+) vs. EVD(-) and EVD(+)/malaria(-) vs. EVD(-)/malaria(+) cohorts, revealed several characteristics with the highest odds for EVD infection. Including them in a multivariate diagnostic score, we obtained an 88% ability to discriminate EVD(+) from either EVD(-) or EVD(-)/malaria(+) with over 95% accuracy for "very high risk" category, whilst maintaining >95% sensitivity for "very low risk".
The mortality rate among EVD(+) patients was 60.8% and highest in those aged <5 or >25 years ($p<0.05$). Death was significantly associated with high viral load, disorientation hiccups, diarrhoea, conjunctivitis, dyspnoea and myalgia. Including these characteristics in multivariate prognostic scores, we obtained a 91% and 97% ability to discriminate death at or after triage respectively.

CONCLUSION
This study proposes highly predictive and easy-to-use diagnostic and prognostic tools, which accurately stratify the risk of EVD and malaria infection as well as mortality.

ABSTRACT NUMBER: 12.1

DEVELOPING A NEW BASIC CLINICAL RESEARCH SKILLS COURSE FOR SURGICAL TRAINEES IN COSECSA* COUNTRIES

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BACKGROUND, AIMS
Sub-Saharan Africa (sSA) is rich in surgical research material. Health care in the region deals with the effects of infectious diseases and poverty, increasing non-communicable diseases, birth defects and severe injuries due to car crashes and burns. Effective surgical care to those in need depends on evidence of benefit. Aims were to develop a basic research skills course for surgical residents at the request of the COSECSA Education and Research Committee, deliver an effective pilot course within 2015 and demonstrate educational success.

METHODS
Reviewing a number of surgical research methods courses worldwide led to a course written for COSECSA to learn basic clinical research principles, read scientific papers critically, understand statistical analysis, choose correct analysis methods and work with online statistical programmes. Participants would understand the process of developing a research idea into a functioning study, do that in practice and learn to critically discuss each other's research ideas in constructive and non-confrontational manner. The course was developed with input from senior surgeons in COSECSA and young surgical researchers in the UK.

RESULTS
A two day course was developed with two pilot courses run back-to-back for 53 junior surgical residents at Addis Ababa University in September 2015. Participants became very engaged, grasped the essentials of clinical research well and worked in small groups to develop their own research ideas into viable study proposals. Ten high quality project proposals were presented for open discussion. Qualitative and quantitative evaluation showed high course value. COSECSA council accepted the course as essential for all trainees, to be run with a course for new trainers.

CONCLUSION
This surgical research skills course is ready for delivery to all COSECSA trainees, depending on funding, and can be continuously improved through participant feedback. Trainees should be further supported to pursue the study proposals they develop.

ABSTRACT NUMBER: 12.2

THE ETHICS OF INTERNATIONAL ACADEMIC HEALTH RESEARCH BETWEEN THE GLOBAL NORTH AND SOUTH

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AIMS
Academic health research between LMIC* and HIC* raises ethical issues at each stage of the research process. Studies in this area show that north-south power imbalances exist, despite decades of research capacity strengthening. A study that is reported on here was undertaken, on the ethics of international academic public health research between the global north and the global south, using Zambia as a case study.

METHODS
Primary data were collected through in-depth interviews with: Zambian researchers (n=20), Zambian national stakeholders (n=8) and northern researchers who had been involved in public health research collaborations involving Zambia and the global north (n=25). An inductive iterative process of thematic analysis was conducted.

RESULTS
Key findings emerged within the following 'micro' and 'macro' research ethics areas:

- micro research ethical issues: research ethics review processes, informed consent and community engagement, which Zambian researchers prioritised.
- macro research ethical issues: though generally not designated as 'ethical' matters, these include broader issues of the politics of the research process, from agenda setting to capacity building, to authorship, and how northern and southern research actors and institutions function and interact. Northern researchers gave more weight to macro research ethical issues.

North-south power imbalances and cultural issues emerged as the most important issues across each of the key thematic areas. While research ethical principles are universal, how they are interpreted in practice differs between northern and Zambian researchers, affecting how research is undertaken and how partnerships function.

CONCLUSIONS
North-south power imbalances need to be addressed, both at structural & individual levels. More culturally contextualised research is needed, at each stage of the research process and in researcher relationships. Micro and macro ethical issues need to be given equal weight in research partnerships, if a shared community of partnership is to emerge.

* LMIC – low and middle income countries
HIC = high income countries

ABSTRACT NUMBER: 12.3

SUSTAINABLE POINT-OF-USE TREATMENT TECHNOLOGIES FOR DEVELOPING COUNTRIES: THE WATERSPOUT PROJECT

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ISSUES
In 2015 nearly 660 million people around the world were without sustainable access to safe drinking water. The majority of these live in rural areas with no realistic hope in the foreseeable future of access to distributed treated water systems. Solar water disinfection (SODIS) is a household water treatment that uses freely available solar energy to inactivate pathogens in water stored in transparent containers which have been placed in direct sunlight. SODIS is used by approximately 5 million people in developing countries on a daily basis.

DESCRIPTION
The WATERSPOUTT project is a Horizon2020 EU-funded Research Innovation Activity involving 18 partner organisations from 12 countries across Europe and Africa (EU Contract H2020-2016-RIA-688928-2). WATERSPOUTT aims to increase uptake of SODIS by designing, piloting and bringing to market three novel solar-based water treatment technologies (Solar rainwater reactors, Solar jerrycans and Solar-ceramic filtration). Rather than the 2L treated volumes usually provided by the standard batch SODIS process, these WATERSPOUTT technologies will provide larger volumes (≥20L) of treated water per day at the point of use. These technologies will be designed in consultation with end-users in Africa and will be piloted in Uganda, South. Africa, Ethiopia and Malawi. WATERSPOUTT technologies will have an estimated market of more 102 million potential end-users in Africa in addition to 50 million elsewhere (Asia, Europe, Latin America).

NEXT STEPS
In this presentation we will describe the development of SODIS technologies from simple bottles to more sophisticated technological solutions for larger community applications and discuss the challenges awaiting the WATERSPOUTT consortium over the next 4 years.

ABSTRACT NUMBER: 12.4

WE ARE THE CHANGE: DEALING WITH HIV RELATED SELF STIGMA IN ZIMBABWE

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ISSUE
Self-stigma is an important and neglected aspect of living with HIV. High levels of self-stigma have been reported in the People Living with HIV Stigma Index. It negatively impacts a person's ability to live positively with HIV, limits self-agency, affects quality of life, adherence to treatment and access to health. Yet few initiatives exist to tackle this issue, especially providing people with skills to address self-stigma, in peer support groups in resource poor settings.

DESCRIPTION
Trócaire, ZNNP+ and RCSI designed, implemented and evaluated a 12 week pilot using Inquiry Based Stress Reduction: The Work of Byron Katie based on formative research. Learning from the pilot, a second 12-week course was administered together with locally trained Facilitators. A tailored curriculum facilitated participant's examination of self-stigmatising beliefs covering self-abasement, shame, guilt, disclosure, restricted agency, hopelessness, sexuality and death.

Designed as an operations research study with the support of the Royal College of Surgeons in Ireland and approved by the Medical Research Council Zimbabwe, qualitative and quantitative data was collected at baseline, post programme and at three months follow up.
The Internalised AIDS Stigma and the Quality of Life scales measuring mood, perceived stress and quality of life were used in the first pilot. An adapted version of the Ryff scale was introduced into the second round. RCSI guided data analysis.

LESSONS LEARNED
Results from the pilot at follow up show positive impacts. Qualitatively, participants report profound shifts in their lives around living positively with HIV, lessened fears about disclosure, not feeling limited by HIV and increased peacefulness. Quantitatively, project results show significant improvements in a number of areas (% improved): self-stigma (61%), depression (78%), life satisfaction (52%), fears around disclosure (52%) and daily activity (70%). Results from the second course are currently being analysed. This project is an excellent example of an organic and effective research and practice partnership, where the programme benefits immediately from the research results and process and the research approach changes based on the programme itself. Many lessons have been learned on both sides.

NEXT STEPS
Based on these results, capacity is being strengthened to fully localise and expand the project to other groups. Internationally, this intervention is increasingly recognised as an example of an effective community driven response to self-stigma.

ABSTRACTS

Poster Display

ABSTRACT POSTER REFERENCE

ABSTRACT POSTER REFERENCE

POSTER NUMBER 1

BUILDING PARTNERSHIPS IN TRAINING IN EMERGENCY AND ESSENTIAL SURGERY: A NEW PARADIGM

Dreyer JS
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BACKGROUND/AIM
In 2015 the Lancet Commission on Global Surgery (LCoGS) published their report and the World Health Assembly (WHA) accepted Resolution 68.15 that safe emergency and essential surgical (EES) and anaesthesia care should be part of universal health coverage. Therefore many more providers must be trained in emergency and essential surgery, obstetrics and anaesthetics. The aim was to work out if is possible to propose a universal training model.

METHODS
Publications of the LCoGS, WHO, World Bank and advocacy groups such as the G4 Alliance were studied in detail to find common ground and assess differences in priorities in delivery and training of EES. Disease Control Priorities 3rd Ed, Vol 1 was used as the core to develop a proposed universal model for training in EES.

RESULTS
Training in EES can be planned in terms of populations (of patients), platforms (hospital level), procedures (operations) and providers (nurses, non-physician clinicians [NPCs], non-specialist doctors [MDs], specialist surgeons and trainees). For primary health care centres the state takes responsibility for training and supervision. The training of specialist surgeons is well structured and supervised by regional and national regulatory bodies (surgical colleges, universities). Training in surgery of MDs and NPCs at level one hospitals are often left to chance or undertaken randomly by enthusiasts, NGOs or individual colleges.

DISCUSSION
It is proposed that surgical colleges institutions take responsibility and provide supervision of training, assessment, continuous professional development, audit and quality control at all levels of EES provision. Appropriate task-sharing will facilitate patients' chances to get the right procedure at the right hospital by a safe well-trained provider. International surgical bodies such as WHO's Global Initiative on EES and the IFSC, in collaboration with regional surgical institutions, the G4 Alliance and LCoGS should help ensure uniformity of training standards.

POSTER NUMBER 2

PATIENT PERSPECTIVE OF BARRIERS TO ACCESSING SURGICAL CARE

Vander Burg. R., Hatcher. K.

Operation Smile
Operation Smile is an internationally recognized medical charity that conducts surgery programs across the world with a focus on treating children with cleft lip and cleft palate deformities. Despite providing free surgery Operation Smile experienced low patient turn out in some communities even though there were thought to be a significant need.

A detailed analysis of patient and families perspectives on the barriers they experience in accessing treatment has been conducted across multiple countries and have identified structural, financial, and cultural barriers. Based on this input Operation Smile has developed additional mechanisms for patient recruitment and management that have increased the access of patients and families to access surgery and other comprehensive services.

With the emergence of surgery as a key component of universal health coverage it will be important to consider the patient perspective in the development of national surgical plans to ensure that the poorest and most marginalized can access surgical care when needed.

POSTER NUMBER 3

CAPACITY TO INTEGRATE PELVIC ORGAN PROLAPSE TREATMENT AT GENITAL FISTULA REPAIR CENTERS IN SUB-SAHARAN AFRICA

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Fistula Care Plus Project at EngenderHealth, USA

ISSUES

Pelvic organ prolapse (POP) occurs worldwide. Women in low- and middle-income countries (LMIC) suffer untreated POP longer, with greater health and psychosocial consequences. A review of 16 LMIC estimates POP in one-fifth of parous women [Walker and Gunasekera 2011]. The global surgery movement describes "platforms of capacity," where provision of "bellwether" surgeries can facilitate additional service integration. LMIC fistula treatment centers may be such platforms, allowing expanded POP treatment through synergies in training, materials and staffing. The socioeconomic diversity of women with POP encourages financial sustainability of fistula care beyond bilateral and multilateral funding.

DESCRIPTION

The Fistula Care Plus project at EngenderHealth is a USAID-funded initiative partnering with 33 fistula repair sites in six countries. In total, EngenderHealth/USAID has supported over 33,000 fistula surgeries. A project survey evaluating POP need and capacity generated responses from surgeons at 26 facilities in Bangladesh, Democratic Republic of Congo, Niger, Nigeria, and Uganda.
Lessons learned: Survey findings indicate unmet need for POP care, but potential for expansion of such services at fistula sites. However, POP/fistula service integration raises concerns about impacts on fistula care.

DATA

92% of responding facilities reported demand for POP services. While 85% provide POP treatment, needs are not fully met in >50%, with POP clients referred up to 320kms away. Respondents indicate wide variation in POP assessment and grading; lower urinary tract symptoms evaluation; and compartment-based POP, urinary, and rectal incontinence surgical skills. High interest in expanding POP services reflects surgeon-identified synergies between fistula and POP care, e.g., surgical skills, quality assurance/improvement, and patient management. Potential conflicts include impacts on care timeliness and quality.

NEXT STEPS

Fistula and POP service integration is evolving in sub-Saharan Africa. Successful integration requires leveraging POP and fistula surgery synergies; strengthened M&E, supply chains and infrastructure; and strategy to prevent undermining of fistula repair.

POSTER NUMBER 4

THE OPERATIVE EXPERIENCE OF BASIC SURGICAL TRAINEES IN THE COLLEGE OF SURGEONS OF EAST CENTRAL AND SOUTHERN AFRICA (COSECSA)

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INTRODUCTION
The College of Surgeons of East, Central and Southern Africa (COSECSA) is a non-profit body which provides surgical training in Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe. Since 2007 the Royal College of Surgeons in Ireland (RCSI) has collaborated with COSECSA in providing surgical education and supporting surgical practice in the region. Supported by Irish Aid funding, RCSI provides staff time and resources including curricula, skills training, faculty development and examination support.

MATERIAL AND METHODS
We outline details the activities of COSECSA and the collaboration with RCSI and plans for their collective future. We also include results of a study set out to quantify and analyse the operative experience of COSECSA basic surgical trainees using the operative logbooks which are part of their training and assessment.
A retrospective data analysis was completed of the logbook consolidation sheets submitted by the basic surgical training exam candidates.

RESULTS
Data was available for a total of 98 COSECSA MCS exam candidates from 2011 to 2015 inclusive. The overall most frequently recorded general surgery procedures were wound debridement, circumcision, incision and drainage of abscess and lower segment caesarean section.
Results were compared with the logbook data for the 2015 RCSI CST candidates. The top 20 most frequently performed procedures from each college had 7 in common.

CONCLUSION
The analysis of the operative experience shows that COSECSA basic surgical trainees record a high volume of procedures particularly in the area of emergency surgery. This reflects the needs of the local health system.

POSTER NUMBER 5

SCALING ACCESS TO CLEFT SURGERY THROUGH INNOVATIVE TECHNOLOGY

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ISSUES
There is a significant gap between accessibility of surgical services and need in the developing world. It is estimated that at least five billion people lack access to surgical care worldwide.

DESCRIPTION
One of the factors contributing to the inaccessibility of cleft lip and palate surgery in the developing world is the challenge many medical professionals face accessing the requisite surgical training. To address this disparity, Smile Train collaborated with BioDigital Inc. to create the Smile Train Virtual Surgery Simulator: the first free, open-access, web-based, multilingual, interactive virtual surgery simulation designed to enhance training for surgeons in the repair of cleft lip and palate.

LESSONS LEARNED
The Simulator is freely available to any medical professional with access to a computer and an internet connection. The Simulator offers a vivid, 3-D representation of cleft lip and palate anatomy and each step of various cleft repair procedures, including spatial relationships between relevant anatomy and tissue response to surgical intervention. Surgeons can learn about the formation of cleft lip and palate anatomy in a series of tutorials featuring live surgical video from expert surgeons for each step of the procedures juxtaposed against the simulation for an additional level of learning. Because of its versatility, ease of use and open access, this teaching tool has the potential to permanently change the course of medical education while providing increased access to surgical treatment and improving the lives millions of people born with cleft lip and palate in the developing world.

DATA
The Simulator has been accessed by 2,000+ users from 112 countries since its launch in 2013.

NEXT STEPS
The technology featured in the Simulator has the potential to supplement surgical training for many different types of surgical disease and could be useful to any clinic or medical school with a laptop and internet access.

POSTER NUMBER 6

BUILDING CAPACITIES IN LOW RESOURCES SETTING: TEACHING AWAKE FIBEROPTIC INTUBATION

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AIMS

In many developing countries, donated anesthesia equipment may represent more than 80% of the material available. Less than 30% of such equipment is used due to lack of maintenance technical skills. A new flexible fiberoptic bronchoscope (donated some time ago) was found in the anesthesia division of the Yekatit 12 Hospital (Ethiopia) during a workshop of reconstructive surgery focus on facial and neck contracture release. Impossible Intubation and control of the airway are often been the limitating factors for such surgery. Awake fiberoptic intubation is a validated and safe technique for patient with very difficult airways. Skills to perform such techniques are challenging to acquire and require training. The aim of this workshop was to establish an intensive training course for awake intubation using a theoretical as well as a technical approach on an improvised simulator to implement the skills first on anesthetized patients and after on awake patients.

METHODS

This workshop was based on the local resources but also on the local needs. A theoretical teaching was given to 9 anesthetists. A simulator built with paper and downpipe was used to teach the fiberscope manipulation and the anatomy of the upper airway. Every participant has to perform on the simulator several successful intubations before practicing on patients.

RESULTS

During our 4 days course, all participants were able use the fiberoptic bronchoscople adequately and know the sequence and technique for awake intubation. None of the participant was able to intubate adequately a patient under general anesthesia. No attempt in awake patient was thus performed.

DISCUSSION

The four days training course was not enough to complete the goal of fiberoptic awake intubation. We recommended that the anesthetists train for fiberoptic intubation during anesthesia when no difficult intubation is expected before we return to finish the training on our next mission.

POSTER NUMBER 7

INCISION 3D VIDEO-LEARNING ACADEMY FOR IMPROVING SURGICAL SKILLS

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INCISION Academy

ISSUES
There are huge differences in quality of surgical education and a huge lack of surgeons in the world, leading to 2 bln people without access to surgical care today. It is estimated that with proper execution of 15 essential surgical procedures (e.g. caesarian section, inguinal hernia), 80% of the current surgical burden in low resource settings can be reduced. However, there is no source where the global standard of a surgical procedure is described in a practical, step-by-step manner, which can be accessed anytime and anyplace.

DESCRIPTION
INCISION has developed a step-by-step approach that can dissect any surgical procedure into clear surgical steps, and uses these steps as an educational film of the procedure to form practical guides. These online guides help individual residents and surgeons prepare efficiently for practical work in OR, bring structure and speed into surgical training curricula, and are offered as high quality, time and place independent Continuing medical education (CME) and Continuing Professional Development (CPD).
The step-by-step approach creates a uniform surgical language which is very valuable in educational settings.

LESSONS LEARNED
A pilot study in Indonesia (N=14) revealed that using the INCISION e-learning is useful, comprehensible, and found a significant increase in knowledge. Although, internet access in rural areas is still a huge problem.

NEXT STEPS
INCISION learning guides are structured using our standardized step-by-step method. Consistently structuring practical surgical knowledge using this method is the first step towards the creation of a uniform surgical language. A language spoken between trainers and trainees. A language spoken in a global network of surgeons, which will collectively speed up the development and implementation of surgical innovations. By sharing surgical skills - whether in our Academy or in a future global network of surgeons - the quality of surgical care is likely to improve worldwide.

POSTER NUMBER 8

STANDARDIZING SURGICAL PROCEDURES: A UNIFIED STEP BY STEP DESCRIPTION METHODOLOGY

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AIMS
With an estimated two billion people worldwide without access to surgical care due to a lack of surgeons, the surgical workforce should be enlarged which requires improvement of the surgical training programmes. In theory, defining surgical steps and their demarcation facilitates the interaction amongst surgical care providers and improves surgical training. Until now, no single unified methodology is described on how these steps are defined. The objective of this study is to propose a unified method to define and demarcate surgical steps - based on an analytical view of performing surgery and a Delphi method.

METHODS
A step by step approach description is proposed in which "steps" and "substeps" are defined. A Delphi survey will be conducted with experienced surgeons from at least five different countries who rate the general concept and the demarcation of steps on a 7-point Likert scale. The steps of an open inguinal hernia repair developed upon the Step by Step approach, will be rated. Qualitative comments on the general concept will be gathered as well.

RESULTS
We expect high rates of agreement by the Delphi survey on the definition of substeps as this is the smallest element of a surgical procedure. The definition of the steps might be changed due to the Delphi survey.

DISCUSSION
A unified method to define and demarcate surgical steps is evaluated according to the developed steps of the open inguinal hernia repair. To further test the Step by Step approach, multiple surgeries from different disciplines should be developed and rated as well.
By utilizing the same standards to describe a surgery, horizontal as well as vertical communication will be structured and therefore, can improve. Achieving a unified Step by Step description will provide a language for surgeons which may improve surgical education, research and day-to-day communication.

POSTER NUMBER 9

A PROFILE OF DIABETIC PATIENTS PRESENTING TO AN OUTPATIENT CLINIC IN RURAL AFRICA

Freeman D.[1], Mooney S.[2], Garrett S.[2], Dr Dwight [3], Elliot J.[3], Sheill G.[4]
University College Dublin[1] , St James's Hospital Dublin [2] , Kisiizi Hospital, Uganda [3] , Trinity College Dublin [4]

Diabetes is an increasing problem in Sub Saharan Africa. Type 2 diabetes, the most common form, is becoming more prevalent due to rising rates of obesity and physical inactivity (Levitt, 2008). Although diabetes is the most common endocrine disorder found in Uganda (Lasky et al, 2002), there is a scarcity of data on the profile of patients presenting with this condition in rural clinics. More information about these patients may assist in designing programmes to manage diabetes in this setting.

AIM

The aim of the study was to profile the patients attending an outpatient clinic for diabetic services in a rural African setting.

METHOD

A standardised audit form was kept for one week of the diabetic outpatient's clinic. This audit form gathered data on attending patients including age, age at diagnosis, length of time since diagnosis and reason for attending the clinic.

RESULTS

The mean age of patients attending the clinic was 52.4 years (SD 19.11). Of the 29 patients who attended clinic during the audit, 28% were males and 72% were females. Patients had an average length of diagnosis of 7.33 years (SD 6.6). The average age at diagnosis was 43 years for males (SD 10.9) and 47 years for females (SD 20.7). The main reason for attending clinic was to obtain a repeat prescription for medications. 38% of interviewees reported having run out of medications, and finance was indicated as the reason for this in 82% of cases.

CONCLUSIONS

Information on the age of patients presenting to the diabetic service at this hospital may assist in the service planning for this cohort. There is a large variance in the age of patients at the time of diagnosis and also a corresponding variance in the age that these patients receive a diagnosis. This warrants further investigation.

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POSTER NUMBER 10

A QUALITATIVE EVALUATION OF THE INTRODUCTION OF A DIABETES EDUCATION PROGRAMME IN RURAL AFRICA

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Diabetes is an increasing problem in Sub Saharan Africa. Type 2 diabetes, the most common form, is becoming more prevalent owing to rising rates of obesity and physical inactivity in this area (Levitt, 2008). Previous studies in African populations have indicated limited knowledge about both diabetes and the body (Hjelm et al 2010). A diabetic education programme for patients was introduced in Kisiizi, a rural African hospital, in April 2015. This programme incorporates a nutrition education session, posters and an educational video.

AIM

The aim of the study was complete a patient led qualitative assessment of a newly implemented diabetes education programme in a rural African diabetes clinic.

METHOD

Patients completed qualitative interviews in the hospital outpatients department. Aided by nursing staff who translated, the responses were transcribed. Once collected, data was then collated and common themes explored.

RESULTS

During the study period 29 patients were interviewed. 66% of patients had attended an education session. The main reasons for non-attendance included not being informed about the session or poor engagement with the educational video. Of those who'd attended a session, 100% acknowledged the importance of diet and 24% acknowledged the importance of exercise. The complications of diabetes and its symptoms were correctly highlighted by 10% and 5% of patients respectively. Patients reported the main objective of treatment was to prolong life, reported by 59% of patients, and medications were the most common treatment suggested.

CONCLUSIONS

Overall patients showed interest in the provision of an education programme in this setting. The use of a video during education sessions for this population warrants further investigation. The important role of exercise in the prevention and treatment of diabetes need further attention in education sessions. Education which emphasises the importance symptom management and secondary complications of diabetes should also be included.

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POSTER NUMBER 11

CLINICAL OFFICER SURGICAL TRAINING IN AFRICA (COST-AFRICA): HOUSEHOLD COST FOR SURGERY IN MALAWI

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AIMS
The College of Medicine in Malawi has been providing training in surgery to clinical officers as part of the COST-Africa research project. The project aims to demonstrate the (cost-)effectiveness of increasing surgical capacity in rural Malawi and Zambia. One aim of the economic evaluation was to establish the costs that households incur when one of their members undergoes surgery.

METHODS
We conducted interviews at four district hospitals with patients who had undergone surgery for obstetric conditions (184 patients) or hernias (137). Information was obtained about expenditure incurred, income foregone and coping strategies, along with data on household composition and economic status. Follow-up telephone interviews, several weeks after discharge, obtained information on the effect of the index condition on the patients' ability to work and financial impacts on households.

RESULTS
The median household expenditure associated with surgery is MKw 6,800 or US$10, mostly for food and petty items during the inpatient stay and also transport. Total expenditure does not differ significantly across household income quintiles. However, it ranged from 5% (median in the highest income quintile) to 93% (lowest income quintile) of a household's monthly income. A quarter of all households (33% in the lowest income quintile) take out loans to cover the cost of surgery. Two-thirds of all patients (80% in the lowest quintile) reported a deterioration of their household economic status as a result of their surgical condition.

DISCUSSION
Patients who undergo district-level surgery incur expenditure that forms a substantial part of their households' monthly income. Higher expenditure is anticipated when surgical patients are referred to a tertiary facility (results forthcoming), which may make surgery prohibitive for poor households. Household costs need to be considered in decisions whether to scale-up district-level surgery or maintain the status quo of limiting essential surgery to tertiary facilities in Africa.

POSTER NUMBER 12

A COMPARISON OF SCREENING PRACTICES IN CHILDREN WITH SEVERE ACUTE MALNUTRITION IN RURAL UGANDA TO THE WHO GUIDELINES

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AIMS

In Kisiizi Hospital Uganda, a rural hospital in a developing country, malnutrition was responsible for 35% of under-five mortality in 2014.
A research project was completed to compare current hospital practice to recently updated WHO guidelines, on the admission and management of children with Severe Acute Malnutrition (SAM). The aims were to measure performance and suggest changes to enhance patient care, thus reducing the under-five mortality rate in accordance with Millennium Development Goals.

METHODS

Two tools were used:

1. A clinical audit was completed using a patient checklist. All patients under 5 admitted with SAM over a two-week period were included. Data was collected retrospectively from charts. Patients were followed for a further week to assess discharge criteria.
2. A questionnaire was completed with Paediatric healthcare staff by interview to determine the learning needs of staff and identify gaps in hospital resources.

A qualitative analysis of results was completed.

RESULTS

13 patients were included in the audit.
2 patients were discharged against medical advice and discounted from the final data. Overall compliance with clinical audit criteria was 57.14%.
9 members of staff were interviewed.
The main areas identified for improvement were continuity of admission and discharge criteria (88.89% unsure of the correct criteria). 33.33% requested further training on nutritional screening. The lack of a height-measure in outpatients was also identified.

DISCUSSION

WHO Guidelines state that patients must be oedema-free for at least 2 weeks prior to discharge. This study highlights the challenges of adherence to these guidelines in a developing country, possibly due to demand on hospital beds and social circumstances preventing families from remaining in hospital when the child appears clinically well.

Education was provided to Healthcare staff in Kisiizi Hospital based on MUAC and Z-scores in the hope that this will improve overall management in the future.

POSTER NUMBER 13

THE EFFECT OF A TWO-WEEK PHYSIOTHERAPY CAMP ON DISABLED CHILDREN AND THEIR MAIN CARERS IN A LOW-RESOURCE RURAL SETTING

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AIMS
Under-resourced health care services deny many children access to physiotherapy, meaning that temporary impairment frequently leads to permanent disability. The role of physiotherapy in disability is well established; however there is a dearth of research on physical interventions in developing countries. The aims of this study are to investigate the effect of an intensive two-week physiotherapy programme on children presenting with disabilities in a low-resource setting and to evaluate the satisfaction and confidence of their main carers following two weeks of education using a customised parental satisfaction questionnaire.

METHODS
Eighteen children with cerebral palsy, developmental delay or Down's syndrome from districts neighbouring Kisiizi Hospital were invited to participate in this study. Each participant's range of motion and functional ability were initially assessed using goniometry and the Gross Motor Function Measure (GMFM-66) respectively. The children received eight one-hour group physiotherapy sessions and outcome measures were repeated prior to discharge. The child's main carer received six one-hour education talks on health and disability-related topics after which they filled out a satisfaction questionnaire.

RESULTS
A paired t-test established a statistically significant improvement between pre- and post-intervention GMFM-66 scores (p= 0.003), with the most significant and greatest percentage improvement seen in Dimension B (Sitting, p= 0.005). Sixteen mothers or carers completed the questionnaire and results showed high satisfaction rates with the intervention. The most valuable education session from the camp was Home Management of Disability session (n=8), with the majority (n=10) calling for further interventions of this structure.

CONCLUSION
A statistically significant improvement in GMFM-66 scores suggests the overall improvement of functional ability of the children and advocates the benefit and feasibility of short-term intensive physiotherapy programmes in low-resource settings. The main carers' increase in confidence and knowledge should improve their ability to provide long-term care for their disabled child.

POSTER NUMBER 14

ATTITUDES AND BELIEFS OF PARENTS OF DISABLED CHILDREN IN UGANDA

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BACKGROUND & AIMS
Carers of children with disabilities in developing countries have been found to suffer stress, lack support, have decreased access to services, and experience both spiritual beliefs and negative attitudes amongst others towards disability. There is limited research examining these issues in Uganda, where child disability constitutes 31.4% of all disabilities. There is a need to examine experiences, beliefs, and attitudes of parents/ main carers of children with disabilities in order to identify the challenges they face, to optimize rehabilitation strategies for the child and families and to highlight areas for further research.

METHODS
A descriptive qualitative research design was employed. Data were collected from ten semi - structured interviews with main carers (eight mothers, two grandmothers) of children receiving rehabilitation either in the acute setting of the hospital, or in the community based rehabilitation (CBR) programme, who were living rurally in southwestern Uganda. Interviews were recorded, transcribed, and later, themes were identified using thematic analysis.

RESULTS
Three main themes were identified: (1) experiences, (2) beliefs, and (3) attitudes of the parents/ main carers. Carers experienced emotional stress and many life changes as the burden of care fell primarily on them. There is a lack of knowledge and information about disability amongst carers, resulting in alternative beliefs about treatment, and uncertain future hopes. Attitudes towards rehabilitation were mixed with more positive attitudes towards rehabilitation administered in a hospital setting rather than CBR. Social stigma towards disability remained in existence within Ugandan society.

CONCLUSIONS
Family centered rehabilitation should be incorporated into rehabilitation programmes to decrease burden of care upon the main carer. Health care practitioners are in a strong position to educate families about causation, diagnosis, and prognosis of a child's condition. CBR services can be improved through community education about disability, and the development of parental support groups.

POSTER NUMBER 15

NUTRITION IMPACT & POSITIVE PRACTICE (NIPP) PROJECT – A COMMUNITY CENTRED INITIATIVE FOR THE PREVENTION OF MALNUTRITION

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ISSUES

It is estimated globally 33 million children suffer from moderate acute malnutrition (MAM, WHZ<-2 and ≥-3) (UNICEF et al 2012) and 171 million children suffer from chronic malnutrition (HAZ <-2) (WHO, 2010). GOAL designed the Nutrition Impact and Positive Practices (NIPP) project as a gendered, grass-roots approach, directly tackling a package of the underlying behavioural causes of malnutrition, irrespective of the particular manifestations. The original stimulus for designing a new nutrition project was to find an alternative to food-based aid programs, such as Blanket/Targeted Supplementary Feeding Programs that have either not be found effective in reducing rates of malnutrition or have only had short lived effects, whereby their sustainability is usually untenable.

METHODS

GOAL's NIPP circle project uses formative research to identify key nutrition problems, their associated causes and uses Designing for Behaviour Change frameworks with barrier analyses to design positive impactful nutrition sensitive and specific activities. Community, male and female circles including households with or vulnerable to malnutrition meet separately on a regular basis for up to 12 weeks receiving behaviour change education and participating in practical activities such as building latrines, micro-gardening and food processing, preservation and storage.

LESSONS LEARNED

Across the five countries where NIPP is implemented it has had a positive impact on nutrition specific and sensitive behaviours. Across the five country programmes; diet diversity in 10,224 households who completed NIPP increased from 24% to 69% and of 2,947 children 6 – 59 months admitted to NIPP with MAM (MUAC <12.5cm >11.5cm) 71% were discharged cured (MUAC >12.5cm).

RECOMMENDATIONS

Countries affected by high rates of malnutrition require alternative or complimentary solutions to therapeutic hand-outs. A combination of practical, contextually specific nutrition information, accompanied by practical nutrition sensitive activities, can be effective in managing MAM and potentially chronic malnutrition, in areas with underlying basic food security.

POSTER NUMBER 16

SOUTH-SOUTH PARTNERSHIP PROGRAM: FROM SUDAN AND BEYOND

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ISSUES
The South-South Partnership Program's [SSPP] mission is to share knowledge, skills, expertise and resources to meet development goals through concerted efforts enhancing global health partnerships across middle and low income countries.

DESCRIPTION
The Sudan Medical Specialization Board [SMSB] aims to raise academic and practical standard of medical education and oversee training and certification of doctors in 33 different specializations. The SSPP seeks to adopt a health systems strengthening approach; to enable the health system in South to efficiently and effectively produce and to train health cadres while sustaining quality health services. It works with Ministries of Health and similar institutes to strengthen capacity to address gaps and bottlenecks that have critical impact on health system strengthening; health professional education production and health service delivery.

LESSONS LEARNED
Program implementation phases and key intervention points in education, training and research for capacity building are identified along the value chain of health service delivery; including the development/ strengthening of post graduate training centre; implementation of effective health professional training systems and promotion of sustainable efficient health workforce by providing appropriate, practical and sustainable option to improve the quality of health professionals training in their respective countries and consequently improving the health of peoples in low and middle income countries.

DATA
The SMSB has actively built partnerships with countries of the South as South Sudan among others. The strategic approach in strengthening their health system through technical support in training health workforce in upgraded health facilities; improving health professional education through the post graduate training centre and production of quality graduates will ultimately improve the quality of health services provided.

NEXT STEPS
The SMSB acknowledges the importance of building healthy nations through providing quality health professions delivering services of standards. Scaling up the programme to encounter similar settings is of great value.

POSTER NUMBER 17

ASSESSING IMPACT OF ENHANCED ACTIVE SURVEILLANCE OF EBOLA VIRUS DISEASE IN PORT LOKO DISTRICT, SIERRA LEONE

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BACKGROUND
In mid-2015 the Sierra Leone districts of Port Loko and Kambia saw intense EVD transmission relative to elsewhere in the country. This period saw concurrent decreasing numbers of sick and death alerts reported to District Ebola Response Centers (DERC) and an increasing number of undetected EVD transmission. Port Loko surveillance partners developed an enhanced active surveillance strategy to increase the number of sick and death alerts detected by engaging community leadership to strengthen networks between community structures, health facilities, and the DERC. We assessed the effect of the Port Loko surveillance strategy in comparison to Kambia.

METHODS
Port Loko implemented enhanced active surveillance June 2015 with a priority on sections reporting <50% of expected deaths per capita for 2 months pre-intervention. Paired t-tests were conducted to compare the 10 week pre-intervention average death and sick alerts reporting rates per 10,000 persons to the 10 week post-intervention averages for all Port Loko and Kambia sections. Section-level alerts average reporting rate differences pre and post intervention were compared between both districts using independent t-test.

RESULTS
Average per-capita death alerts reporting rates increased across sections in both Kambia (RD=8.1, $p<0.05$) and Port Loko (RD=16.5, $p<0.05$) districts. Average per-capita sick alerts reporting rates increased in Port Loko (RD=5.2, $p<0.05$) while Kambia decreased (RD=-1.3, $p>0.05$). Differences in the average per-capita alerts reporting rates were statistically significant between the 2 districts.

CONCLUSIONS
Increased surveillance and social mobilization resources led to increased average death alerts reporting rates in both Kambia and Port Loko. Port Loko saw larger post-implementation increases in average death and sick alerts reporting rates than Kambia due to implementation of enhanced active surveillance, particularly at the section level. Evaluation is limited due to the short sampling time frame and sample size. Unmeasurable benefits include a stronger surveillance network between community and district structures.

POSTER NUMBER 18

PARENTAL HEALTH LITERACY IN RURAL UGANDA: A QUALITATIVE EXPLORATORY STUDY

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AIM
The aim of this study was to investigate the use of the PHLAT-10, a tool which examines parents' understanding of nutritional information, medical instructions, and common literacy and numeracy skills, in rural Uganda.

METHODS
Qualitative semi-structured interviews were conducted with healthcare workers (n=5) and international healthcare volunteers (n=2) at an acute hospital in south-western Uganda.

RESULTS
A qualitative analysis of the transcripts identified that all questions of the PHLAT-10 would require modification for use in this setting. The tool was found to show limitations due to local differences in types and availability of infant food, local differences in availability of medications used to treat childhood illness, low parental literacy levels and the existence of a clinician-led model of healthcare in the area. However, the basic clinical domains and skills assessed by the PHLAT-10 were relevant.

CONCLUSIONS
The content and phrasing of health literacy tools must be reflective of the cultural context in which they are used. Preliminary recommendations as to how the PHLAT-10 could be modified are suggested, which would require further investigation in a larger scale study.

POSTER NUMBER 19

THE USE OF TECHNOLOGY ENHANCED LEARNING IN HEALTH RESEARCH CAPACITY DEVELOPMENT

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BACKGROUND
Technology enhanced learning can support research capacity strengthening and thereby advance health and development. This article explores the use of technology enhanced learning in the delivery of a collaborative postgraduate blended Master's degree in research in Malawi. Modules were designed and produced by academic staff and a learning technologist based at two Irish institutions in collaboration with Malawian partners. The modules were delivered on line with three one-week face-to-face sessions with the students in Malawi. Two research questions are addressed: (i) Can technology enhanced learning be used to develop health research capacity?, and (ii) How can learning content be designed that is transferrable across different contexts?

METHODS
An explanatory sequential mixed methods design was used to evaluate the technology enhanced learning experiences. Online surveys were administered to staff and students; student participation in online activities was monitored; and an independent evaluation of the programme conducted, using in-depth interviews.

RESULTS
When designing a blended learning programme remote collaboration between students and staff is essential to foster student engagement and to retain students. Learning content was designed around low bandwidth availability in Malawi, but internet access proved problematic for the students - internet access was only available when working in the main centres during office hours, Monday to Friday. Training was also needed for students and staff on the new learning tools and media. The underpinning pedagogy of staff and support of a learning technologist guided the most appropriate tool selection. Varying levels of staff and student engagement with the available tools was recorded.

CONCLUSION
Capacity can be built in health research through blended learning programmes. Institutional support for technology enhanced learning needs to be conceptualised differently from IT support for face-to-face teaching if technology enhanced learning is to be scaled up. Differences in pedagogical approaches and styles between institutions and existing social norms and values, especially around communication, need to be considered if content is to be transferred across different settings.

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POSTER NUMBER 20

RESEARCH PARTNERSHIP FOR HEALTH SYSTEM STRENGTHENING: A CASE STUDY OF STEM (SUPPORT, TRAIN AND EMPOWER MANAGERS)

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AIM

Human resource for health (HRH) has remained a challenge in sub Saharan Africa despite efforts in resolving the crisis. Previous research efforts have described the problems and methods used in addressing the crisis, addressing the crisis require more than describing the problem, it involves identifying solutions and putting in place workable strategies. Support Train and Empower managers is a Human Resource for Health project in partnership with the Centre for Global health, Trinity college Dublin, Ifakara Health Institute Tanzania, Eduardo Mondlane University Mozambique and the National Institute of Health Mozambique formed to address one of the myriads of problems already identified as contributing to HRH crisis in SSA. The project was launched in 2011 and coordinated in the Centre for Global health (CGH) with partners in Ifakara Health Institute (IHI) in Tanzania and Eduardo Mondlane University (EMU)/National Health Institute (NHI) in Mozambique. The STEM partnership is a long standing partnership building from a previous project the Health System Strengthening for Equity (HSSE) which started in 2008 with several partners in Europe, USA and Africa.

METHODS

A review of the partnership was undertaken, to understand its strengths and weaknesses and to facilitate learning and inform models of partnership in health system strengthening. All partners in the Project 4 from CGH, 3 from IHI and 3 from EMU participated in the study. Data was collected through semi-structured interview which allowed in-depth understanding of participant's experiences with the project and partnership. Data was analysed using thematic analysis and emergent themes were independently identified by 2 researchers.

RESULTS/DISCUSSION

Various strengths, weaknesses and opportunities were identified by partners and suggestions on areas to be strengthened were made. The STEM partnership was seen to be inclusive and supports capacity strengthening. Recommendations for future programme improvement and for lessons that can be applied to other partnerships are highlighted and discussed.

POSTER NUMBER 21

ASSESSING THE IMPACT OF AN ORGANISED ELECTIVE PROGRAMME IN KENYA AND TANZANIA

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BACKGROUND
Low income countries continue to face challenges in developing a health system that can effectively deliver health care to the population. Since 2007, a partnership between the College of Surgeons in Eastern Central and Southern Africa (COSECSA) and the Royal College of Surgeons in Ireland (RCSI), seeks to address these challenges through provision of surgical training and examinations in East Africa. During this same period medical students from the RCSI medical school were undertaking electives in developing countries on their own initiative and returning with some reports of taking on excessive clinical responsibilities raising ethical and professional issues. In addition, there was a growing concern in the wider medical community about medical tourism and the one way relationship for medical students receiving benefits from such clinical elective experiences. An opportunity was identified to establish a formal Electives Programme with RCSI's COSECSA partners aimed at maximising effectiveness and minimising potential harm for elective candidates and their host hospital.

METHODS
Since 2011 RCSI have formally organised an annual six week elective programme directly with COSECSA accredited hospitals in Kenya and Tanzania. This programme provides a formal interview process; two pre-departure trainings outlining health & safety, ethical considerations and cultural sensitisation; COSECSA in-country support and RCSI on-call support for the duration of the placement; and an exit evaluation.

RESULTS
To date 18 students have successfully completed a COSECA elective placement. Evaluations have been completed by 12 of these students. Informal feedback is also obtained from host institutions.

CONCLUSION
As a result of a global health initiative to improve surgical training where reciprocity was the aim, an electives programme has been developed that is mutually beneficial and sustainable. This model will facilitate the education of future medical professionals in global health while assuring that ethical principles and mutual benefit for all communities.

POSTER NUMBER 22

ASSOCIATION OF SOCIODEMOGRAPHIC AND HOUSEHOLD CHARACTERISTICS WITH NON-FATAL CHILDHOOD BURNS IN SUDAN: RESULTS FROM A NATIONAL SURVEY

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AIMS
To investigate the association of sociodemographic and household characteristics with the probability of suffering a non-fatal burn by fire or hot substance among children less than 10 years old in Sudan.

METHODS
Data from the Sudan Household Health Survey of 2010 were used. The survey interviewed a national stratified multi-stage cluster sample of 15,000 households. The dependent variable was whether the most recent non-fatal injury was caused by fire or hot substance in the 12 months preceding the survey. The independent variables tested were age, gender, urban/rural residence, socioeconomic status, disability, mother's literacy and educational level, mother's work status, type of fuel used for cooking, place of cooking and overcrowding. Adjusted prevalence ratios were estimated with a multivariable model using independent variables associated with the dependent variable in univariable analysis.

RESULTS
Of 26,207 children under the age of ten years, 47 had their most recent injury caused by fire or hot substance. Statistically significant associations were found with disability (PR = 4.35 – 95% CI 1.21 - 15.69) and child age (PR = 0.69 95% CI 0.54 – 0.90). A one-year increment in maternal age was associated with 6% decrease in prevalence but this was not definitively statistically significant (p = 0.051). There was no sufficient evidence of an association with cooking outdoors or the use of solid fuels in cooking. These results were not influenced by maternal literacy or maternal educational level.

CONCLUSION
Very young children and children with disability in Sudan are more likely to suffer non-fatal burn injuries. There is no sufficient evidence yet to support a potential for improved clean energy stoves in the reduction of childhood burns in Sudan, but specially designed analytical studies with larger number of cases are required. The preventative role of promoting safe behaviours and childproofing of homes remains to be uncovered.

POSTER NUMBER 23

EVALUATION OF SURGICAL PERFORMANCE BY COST-AFRICA-TRAINED CLINICAL OFFICERS IN MALAWI

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ISSUES
Sub-Saharan African countries face a number of barriers that prevent access to safe surgical care in rural areas. One such barrier is a shortage of surgical specialists. In response, there has been an increased demand for the training of non-physician clinicians to meet surgical needs. COST-Africa is a research project in Malawi and Zambia with the goal of evaluating the quality, safety, effectiveness, cost-effectiveness and sustainability of training NPCs in surgery.

DESCRIPTION
COST-Africa co-funded the establishment of a BSc in Surgery at the College of Medicine, Blantyre, incorporating training in clinical decision-making, surgical and information management skills, and monitoring and reporting patient outcomes. 17 Clinical Officers were enrolled in 2012 and underwent six months training in basic sciences and two years of in-service training in surgery at 8 randomly selected district hospitals.

DATA
Data from operating theatres were collected for 24 months, (Jan 2014-Dec15), including types of procedures performed, surgical team composition and patient outcomes. COST-Africa trained clinical officers undertook greater numbers of elective general surgical cases (notably hernia and hydrocele repairs), compared to other clinicians at these hospitals. Also, there was a reduction in the number of c-sections performed by the clinical officers enrolled in the COST Africa BSc program.

LESSONS LEARNED
The COST-Africa program is improving surgical skills in district hospitals in Malawi. Trained clinical officers are undertaking more emergency and elective general surgical procedures, while shifting other procedures such as C-sections – the 'bread and butter' of district hospital surgery – to other staff who have not received general surgical training. Therefore the model of training is addressing the burden of disease more effectively by allowing trained clinical officers to perform surgieries within their level of expertise.

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