

REBECCA MAINE

rebecca.maine@gmail.com

EDUCATION

Fellowship, University of Washington Trauma and Critical Care Surgery	08/2016 – 07/2017
Residency, University of California San Francisco, General Surgery	06/2010 – 06/2016
Master of Public Health, Harvard Chan School of Public Health Global Health	05/2013
Certificate, Harvard Chan School of Public Health Program in Clinical Effectiveness	07/2012 – 08/2012
Intern, University of California San Francisco, General Surgery	06/2009 - 06/2010
Medical Doctorate, University of California, San Francisco School of Medicine Honors Thesis “Comparison of Outcome of Palatoplasty by Local Surgical Volunteer Group and International Volunteer Group in Ecuador and at US Craniofacial Center.”	06/2009
Post-Baccalaureate, San Francisco State University Pre-medical Coursework	01/2002 – 12/2003
Bachelors of Science, Yale University Electrical Engineering, Distinction in the Major	05/2000

EMPLOYMENT

Surgeon, Division of General, Trauma, Acute Care Surgery, University of North Carolina Assistant Professor	10/2017 - Present
Strategy Analyst , Mercer Management Consulting, San Francisco, CA	09/2000 - 09/2001

HONORS

Chesin Compassion Award, UCSF Department of Surgery	06/2016
Sinclair Kennedy Traveling Fellowship, Harvard University	03/2013
ABSITE 90 th Percentile Award, UCSF Department of Surgery	03/2013
Association for Academic Surgery Global Surgery Research Fellowship	02/2013
Carson Family Scholarship, Harvard School of Public Health	09/2012
Medical Student Teaching Award, UCSF Department of Surgery	06/2011
Kraven’s Award for Clinical Excellence, San Francisco General Hospital	06/2010
Phyllis J Nusz, EdD-Maurice Galante, MD Scholarship, UCSF Department of Surgery	02/2010
Steinhart Scholarship, University of California San Francisco	05/2009

Dean's Prize for Research, UCSF
Alpha Omega Alpha Honor Society, UCSF Chapter,
Curriculum Ambassador Fellowship UCSF

11/2008
10/2008
06/2005

BIBLIOGRAPHY

Books and Chapters

Meara, John G., et al., eds. *Global Surgery and Anesthesia Manual: Providing Care in Resource-limited Settings*. CRC Press, 2014. Copy editor.

Refereed Papers/Articles:

Original Research

Scott JW, Nyinawankusi JDA, Enumah S, **Maine RG**, Uwitonze E, Hu Y, Kabagema I, Byiringiro JC, Riviello R, Jayaraman S. Improving Prehospital Trauma Care in Rwanda Through Continuous Quality Improvement: An Interrupted Time Series Analysis. *Injury*, 2017, epub April 5.

Nkurunziza T, Toma G, Odhiambo J, Maine R, Riviello R, Gupta N, Habiyakare C, Mpunga T, Bonane A, Hedt-Gauthier B. "Referral patterns and predictors of referral delays for patients with traumatic injuries in rural Rwanda." *Surgery* 160.6 (2016): 1636-1644.

Enumah S, Scott J, **Maine R**, Uwitonze E, Nyinawankusi J, Riviello R, Byiringiro J, Kabagema I, Jayaraman S. Rwanda's model prehospital emergency care service: a two-year review of patient demographics and injury patterns in Kigali. *Prehospital and disaster medicine* 31.6 (2016): 614-620.

Murhirval E, Habiyakare C, Hedt-Gauthier BL, Odhiambo J, **Maine R**, Gupta N, Toma G, Nkurunziza T, Mpunga T, Mukankusi J, Riviello R. Non-obstetric surgical care at three rural district hospitals in Rwanda: more human capacity and surgical equipment may increase operative care. *World Journal of Surgery*, 40(9), 2109-2116.

Linden, AF,* **Maine, RG***, Hedt-Gauthier, BL, Kamanzi, E, Gauvey-Kern, K, Mody, G, Ntakiyiruta, G, Kansayisa, G, Ntaganda, E, Niyonkuru, F and Mubiligi, J, Mpunga T, Meara JG, Riviello R. Validation of a community-based survey assessing nonobstetric surgical conditions in Burera District, Rwanda. *Surgery*. 2016 Apr;159(4):1217-26

Chao TE; Mandigo M; Opoku-Anane J; & **Maine RG**. (2015). Systematic review of laparoscopic surgery in low-and middle-income countries: benefits, challenges, and strategies. *Surg Endosc*. 2016 Jan;30(1):1-10

Chu K; **Maine R**; Trelles M. "Cesarean Section Surgical Site Infections in Sub-Saharan Africa: A Multi-Country Study from Medecins Sans Frontieres." *World journal of surgery* (2014): 1-6.

Wakeam E; Hevelone N; **Maine R**; Swain J; Lipsitz L; Finlayson S; Ashley S; Weissman J. Failure-to-Rescue in Safety-Net Hospitals: Does Availability of Hospital Resources Explain Differences in Performance? *JAMA Surgery*. 2014 Mar1; 149(3); 229-35

Maine RG, Palacios JH, Hoffman WY; Corlew DS; Gregory GA. Comparison of Long-term Outcomes of Palatoplasties by International and Local Surgeons on Surgical Missions in Ecuador to those at a US Craniofacial Center. *Plastic and Reconstructive Surgery*. 2012 Feb;129(2):319e-326e.

Other Peer Reviewed Articles:

Howard PK; **Maine RG**. Health courts may be best cure for what ails the malpractice system. *Bulletin of the American College of Surgeons*. 2013 Mar;98(3):29-31

Mehlman MJ; **Maine RG**. Health courts will not cure all malpractice ills. *Bulletin of the American College of Surgeons*. 2013 Mar;98(3):32-5

Maine RG; Hoyler M. New Directions in Liability Reform. *Bulletin of the American College of Surgeons*. 2013 Mar 98(3):36-40.

Editorials:

Patel PB; Hoyler M; **Maine RG**, Hughes CD, Hagander L, Meara JG. An opportunity for diagonal development in global surgery: cleft lip and palate care in resource-limited settings. *Plastic surgery international*, 2012.

Published Abstracts:

Linden A*; **Maine R***; Hedt-Gauthier D; Kamanzi E; Mody G; Ntakiyiruta G; Kansayisa G; Ntaganda E; Niyonkuru F, Mubiligi J; Mpunga T; Meara JG; Riviello R. Validation of a community-based survey assessing non-obstetric surgical conditions in Burera District, Rwanda. *Lancet* 2015 Apr 26;385:S8.

Linden A*; **Maine R***; Hedt-Gauthier D; Kamanzi E; Mody G; Ntakiyiruta G; Kansayisa G; Ntaganda E; Niyonkuru F, Mubiligi J; Mpunga T; Meara JG; Riviello R. Epidemiology of untreated non-obstetric surgical disease in Burera District, Rwanda: a cross-sectional survey. *Lancet* 2015 Apr 26;385:S9.

Daniels KM, Yang Yu E, Maine RG, Corlew DS, Bing S, Hoffman WY, Gergory GA. Palatal fistula risk after primary palatoplasty; a retrospective comparison of humanitarian operation and tertiary hospitals. *Lancet* 2015 Apr 26; 385:S37

Baison, G.N., **Maine, R.G.**, Ntakiyiruta, G., Mubiligi, J.M., Meara, J.G. and Riviello, R. Determinants of Postoperative Complication and Perioperative Mortality Rates after Laparotomy at a Large Referral Center in Rwanda. *Journal of the American College of Surgeons*, Volume 221, Issue 4, S87

Maine R, Riviello E, Bush C, Irakiza JJ, Mvukiyehe JP, Kim WC, Manirakiza F, Finlayson SRG, Haynes A, Twagirumugabe T. Use of a Simplified Data Monitoring Tool Improves Prospective Outcomes Monitoring at a District Hospital In Rwanda. September 2014 Volume 219, Issue 3, Supplement, Page S59.

Twagirumugabe T, Irakiza JJ, Mvukiyehe JP, **Maine R**, Bush C, Riviello E, Kim WC, Manirakiza F, Reshamwall S, Mwumvaneza T, Kyamanaywa P, Ntakiyiruta G, Kiviri W, Finlayson SR, Berry W. Prospective data collection at a district hospital in Rwanda. *Canadian Journal of Surgery*. 57(3 Suppl 1):S9. June 2014.

Baison, G, **Maine R**, Nsengiyumva E, Ntakiyiruta G, Mubiligi J, Riviello R. Outcomes of patients that underwent laparotomy at a large referral hospital in Rwanda over a one-year period. *Canadian Journal of Surgery*. 57(3 Suppl 1):S6. June 2014.

Bush C, Riviello E, Irakiza JJ, Mvukiyehe JP, **Maine R**, Kim WC, Manirakiza F, Reshamwalla S, Mwumvaneza, T, Kyamanywa P, Ntakiyiruta G, Kiviri W, Finlayson SR, Berry W, Twagirumugabe T. Effect of surgical safety checklist implementation on culture of patient safety in Rwanda. *Canadian Journal of Surgery*. 57(3 Suppl 1):S6. June 2014.

Wakeam E; Hevelone N; **Maine R**; Swain J; Lipsitz L; Finlayson S; Ashley S; Weissman J. Failure-to-Rescue in Safety-Net Hospitals: Does Availability of Hospital Resources Explain Differences in Performance? September 2013 Volume 217, Issue 3, Supplement, Page S106

Linden A; **Maine R**; Hedt-Gauthier D; Kamanzi E; Mody G; Ntakiyiruta G; Ntaganda E; Meara J; Riviello R. A Validated Community-Based Survey to Measure Surgical Epidemiology in Northern Rwanda, American College of Surgeons, September 2013 Volume 217, Issue 3, Supplement, Page S62. (Excellence in Research Award)

In press/Submitted Manuscripts:

Toma G, Nkurunziza T, **Maine R**, Riviello R, Odhiambo J, Mpunga T, Habiyakare C, Nkikabahizi F, Ngamiye P, Ntakiyiruta G, Hedt-Gauthier B. Predictors of delay in presentation for patients with trauma conditions at three rural district hospitals in Rwanda: a cross-sectional study. *Submitted*

Ruhumuriza J, Odhiambo J, Riviello R, Lin Y, Nkurunziza T, Shrimme M, Browning M, **Maine R**, Mpirimbanyi C, Sebakarane JDLP, Hagugimana P, Mpunga T, Rusangwa C, Hedt-Gauthier B. Costs of laparotomy at a rural district hospital in Rwanda: surgical and associated hospital care costs estimated using time-driven activity-based costing *Submitted*

Maine R*, Linden A*, Riviello R, Kamanzi E, Mody G, Ntakiyiruta G, Kansayisa G, Ntaganda E, Niyonkuru F, Mubiligi J, Mpunga T, Meara JG, Hedt-Gauthier B. The high prevalence of untreated surgical disease in rural Rwanda: a population-based cross-sectional study in Burera District. *JAMA Surgery*. (In Press)

Markey J, **Maine R**, Daniels K, Yu EY, Gregory G, Hoffman W, Palacios J. Otologic disease following palatoplasty in international cleft palate cohort. *Cleft palate craniofacial journal*. (In Press)

Daniels KM, Yang Yu E, **Maine RG**, Heng Y, Li L, Bing S, Corlew DS, Hoffman WY, Gergory GA. Palatal fistula risk after primary palatoplasty: A retrospective comparison of humanitarian operation and tertiary hospitals. *Cleft Palate Craniofacial Journal* (In press).

Refereered non-published abstracts/presentations/posters:

Cook M, **Maine R**, Delano M, Plevin R, Moldwater LL, Baker H, Lopez C, Arbabi S, O'Keefe G, Robinson BRH, Maier RV, Cuschieri J. Monocyte Genomic Expression is Associated with Discharge Disposition in Severely Injured Trauma Patients. Washington State American College of Surgeons Conference, Lake Chelan, WA. June 8, 2017.

Maine R, Cuschieri J, Robinson B, Shoultz T, Riggle A, Cook M, Arbabi S. Impact of Prothrombin Complex Concentrate (PCC) on Time to Reversal of Coagulopathy and Use of Fresh Frozen Plasma in Patients with Traumatic Brain Injury. Schilling Resident Research Day, University of Washington, Seattle, WA. March 3, 2017.

Maine R, Cuschieri J, Robinson B, Shoultz T, Riggle A, Cook M, Arbabi S. Prothrombin Complex Concentrate (PCC) Reverses Coagulopathy More Rapidly than Fresh Frozen Plasma (FFP) in Patients

with Traumatic Brain Injury (TBI) on Coumadin. Seattle Surgical Society, Seattle, WA. February 3, 2017.

Cook M, O'Connell K, Qiu Q, **Maine R**, Riggle A, Shoultz T, Cuschieri J, Arbabi S, Robinson B. Reversible Respiratory Failure in Trauma: Not as Bad as we Thought. Schilling Resident Research Day, University of Washington, Seattle, WA. March 3, 2017.

Maine R, Cuschieri J, Robinson B, Shoultz T, Riggle A, Cook M, Arbabi S. Prothrombin Complex Concentrate rapidly corrects warfarin coagulopathy in Traumatic Brain injury. Committee on Trauma Resident Research Competition, Region X. December 2016.

Riggle, AJ; Cuschieri J; Robinson B; **Maine RG**; Bulger E; Maier R; Mcintyre L; Cook MR; Shoultz T; Error patterns in unanticipated trauma deaths – ten years later Committee on Trauma Resident Research Competition, Region X. December 2016

Toma G, Nkurunziza T, **Maine R**, Riviello R, Odhiambo J, Mpunga T, Habiyakare C, Nkikabahizi F, Ntakiyiruta G, Hedt-Gauthier BL. Predictors of delay in presentation for trauma conditions at three rural district hospitals in Rwanda: A cross-sectional study. Global Health Partnerships, Royal College of Surgeons of Ireland, April 2016.

Nyinawankusi J, Byiringiro J, Scott J, Enumah S, **Maine R**, Uwitonze E, Riviello R, Jayaraman S,, Kabagema I. Using Data to Drive Pre-hospital Quality Improvement in Trauma: A Mixed Methods Analysis of the Rwandan Experience. Bethune Roundtable: Calgary. 7 Jun 2015

Maine R. Habiyakare C, Nkurunziza T, Mizero P, Ndayabaje W, Nsengiyumva E, Havugimana JDD, Nigilimana J, Uwimungu JC, Meara JG, Ntakiyiruta G, Riviello R. Evaluation of the Indications and Outcomes of Surgical Transfers from Three District Hospitals in Rwanda. Academic Surgical Congress, Las Vegas, NV Feb 2015.

Byiringiro J, Enumah S, Scott J, **Maine R**, Nyinawankusi J, Uwitonze E, Riviello R, Jayaraman S, Kabagema I. Injury Patterns and Population Demographics of Injured Patients in Kigali Rwanda. College of Surgeons of East, Central, and Southern Africa Conference. 4 Dec 2014.

Markey J, **Maine R**, Daniels K, Corlew DS, Gregory G, Palacio J, Otologic Disease in the Cleft Palate Population. American Academy of Otolaryngology – Head and Neck Surgery Foundation. September 2014.

Maine R, Uwitonze JM, Kabagema I, Byiringiro JC, Mgarasir J, Nyampinga D, Nsenga JPV, Riviello R, Kyamanywa P, Ntakiyiruta G, Levine A, Jayaraman S. Developing Pre-Hospital Metrics in Rwanda. UCSF Resident Research Day. May 2014.

Baison G; **Maine R**; Chu K; Gilles R; Ntakiyiruta G. Riviello, R. Authorship Equity in Global Surgery: A look at 4 major journals. College of Surgeons of East, Southern and Central Africa (COSECSA) scientific conference. December 2013.

Maine RG; Riviello ED; Manirakiza F; Mukwesi C; Twagirumugabe T. Key lessons in establishing collection and reporting of performance metrics and outcomes as part of a hospital quality improvement project in Kigali, Rwanda. College of East, Southern and Central African Surgeons Conference, December 2013.

Maine RG; Hoffman WY; Palacios JH, et. al. Comparison of Palatoplasty Outcomes in the Developed and Developing World. 22nd Annual UCSF Medical Student Research Symposium. 01/2009.

Maine RG, Palacios JH, Hoffman WY; Corlew DS; Gregory GA Speech and Hearing Outcomes Following Palatoplasty on Surgical Missions in Ecuador. Global Health Conference-Unite for Sight 04/2009.

Maine RG, Palacios JH, Hoffman WY; Corlew DS; Gregory GA Fistula Rates Following Palatoplasty on International Surgical Missions Compared to Craniofacial Center in the US. 66th American Cleft Palate Associations Meeting, 04/2009.

Poster Presentations:

Maine RG, Cuschieri J, Robinson BRH, Shoultz T, Riggle A, Cook M, Hess J, Bulger E, Arbabi S. Statewide protocol reverses oral anticoagulant induced coagulopathy rapidly in patients with isolated traumatic brain injury. AAST 2017 Meeting, Baltimore, MD. September 2017 (Accepted)

Maine RG, Keys KA, Robinson BRH, Parent B, Glenn M, Arbabi S, Bulger E. Regionalization of care for patients with necrotizing soft tissue infections: Optimal timing for debridement. AAST 2017 Meeting, Baltimore, MD. September 2017 (Accepted)

Riggle, AJ; Cuschieri J; Robinson B; **Maine RG**; Bulger E; Maier R; Mcintyre L; Cook MR; Shoultz T; Error patterns in unanticipated trauma deaths – ten years later Schilling Resident Research Day, University of Washington, Seattle, WA. March 3, 2017.

Linden AF, **Maine RG**, Hedt-Gauthier BL, Kamanzi E, Mody G, Ntakiyiruta G, Kansayisa G, Ntaganda E, Niyonkuru F, Mubiligi J, Mpunga T, Meara JG, Riviello R. The epidemiology of pediatric surgical disease in Burera District, Rwanda. World Federation of Associations of Pediatric Surgeons World Congress. October 2016

Baison GN, **Maine R**, Chu K, Gillies R, Ntakiyuruta, G, Meara JG. Authorship equity in Global Surgery research from Low-Middle income countries (LMICs). Consortium of Universities for Global Health fifth annual conference, May 2014

Gutnik, L, Riviello E, **Maine R**, Kim WC, Irakiza JJ, Manirakiza F, Twagirumugabe T. Establishing A System of Ongoing Surgical Outcomes Monitoring in Kigali, Rwanda. International Forum on Quality and Safety in Health, April 2014

Maine R; Mubiligi J; Byiringiro JC; Ntakiyiruta G; Jayarama S; Meara JG; Riviello R. Evaluation of Surgical Transfers in Rwanda. Judith Folkman Research Day, Boston Children's Hospital. May 2013.

Linden A; **Maine R**; Hedt B; Emmanuel K; Mody G; Ntakiyiruta G; Ntaganda E; Meara J; Riviello R. Surgical Disease Surveillance: A Validated Community-Based Survey in Burera District, Rwanda. Harvard School of Public Health, Global and Population Health Symposium, April 2013.

Greenberg S; **Maine R**; Hoyler M; Hagander L; Meara JG. OpenPediatrics: Surgical Education And The Global Community Pediatric Surgery Needs Assessment. Harvard Graduate School of Education Research Conference. April 2013

Chao TE; Opuku-Anane J; **Maine RG**; Hagander LE; Meara JG. The role of laparoscopic surgery in developing countries: a review. Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) April, 2013.

Courtier J; Basta A; **Maine RG**; Cohen PA; Hirose S; MacKenzie JD. Isolated Fallopian Tubal Torsion: Causes, Imaging Findings, and How to Suggest the Diagnosis. Society for Pediatric Radiology Conference. 04/2012.

Other Products of Scholarship:

Maine, RG: Research assistant and contributor to Lancet Commission on Global Surgery, Surgery 2030, including appendix 5.7 “Literature Reivew of Utilization of Metrics For Surgery in Low- and Middle-Income Countires: A Systematic Reivew”.

Greenberg SLM; **Maine RG**; Gillies R; Hagander LE; Meara JG. Surgery: A post-2015 Millennium Development Goal priority. Health in the Post-2015 Development Agenda. Jan 7, 2013.

<http://www.worldwewant2015.org/node/298620>

Editor-in-Chief, Guide to Integrative Medicine UCSF, 05/2005

TEACHING ACTITIVIES

Advanced Trauma Life Support, Instructor	
Harborview Medical Center, Instructor	07/2017
Harborview Medical Center, Instructor	04/2017
Completed course	11/2016
Stop the Bleed, Instructor	
Harborview Medical Center	2016, 2017
Bedside Ultrasound- Introductory Course, Assistant instructor	04/2017
For Anesthesia residents at University of Washington	
Grand Rounds	
University of California, Chief Resident Grand Rounds	03/02/2016
University of California, Global Surgery Update	01/15/2013
Journal Club Coordinator	
Program in Global Surgery and Social Change	06/2012 -06/2013
UCSF Global Surgery Journal Club	07/2012 – 07/2013
Introduction to clinical research lectures	
Pre-hospital providers Kigali, Rwanda	2013-2014
Rwandese Surgical Residence	11/2013

PROFESSIONAL SERVICE

Eastern Association for the Surgery of Trauma, Member	2017 - present
American College of Surgeons, Student and Resident member	2008 - present
Association for Academic Surgery, Candidate Member	2012 – present
Society of American Gastrointestinal and Endoscopic Surgeons, Resident Member	2013 – 2015
Surgical Education Committee, Resident Member UCSF General Surgery Residency, San Francisco, CA	06/2009 – 06/2016
American Medical Student Association Region X, Associate Regional Trustee Member	04/2005- 04/2006 2004-2009
Alpha Omega Alpha Society, Member	2008 - present