

S3 Table. Costs of Pediatric Surgical Procedures

	Intervention	Location	Currency	Cost per outcome, as reported^a	Cost per outcome, 2015 USD^b
Cardiac Surgery					
Vida et al (2006) ⁸⁵	Ventricular septal defect	Guatemala	2005 USD	\$3,787	\$4,611
Vida et al (2006) ⁸⁶	Atrial septal defect: percutaneous occlusion	Guatemala	2005 USD	\$4,521	\$5,505
	Atrial septal defect: surgical closure			\$3,330	\$4,054
Vida et al (2007) ¹⁰⁴	Mediastinitis treatment: delayed sternal closure	Guatemala	2005 USD	\$9,612	\$11,704
	Mediastinitis treatment: primary sternal closure			\$2,467	\$3,004
Talwar et al (2008) ⁸⁷	Atrial septal defect	India	2007 Indian Rupee	₹21,000-70,000	\$1,844-6,147
	Ventricular septal defect			₹23,000-75,000	\$2,020-6,586
	Tetralogy of Fallot			₹24,000-80,000	\$2,107-7,025
	Atrioventricular septal defect			₹55,000	\$4,830
	Fontan procedure			₹24,000-80,000	\$2,107-7,025
	Arterial switch operation			₹27,000-90,000	\$2,371-7,903
	Patent ductus arteriosus			₹6,000-18,000	\$527-1,581
	Coarctation of aorta			₹7,000-22,000	\$615-1,932
	Blalock-Taussig shunt			₹6,000-20,000	\$526-1,756
	Totally anomalous pulmonary venous connection			₹65,000	\$5,708
Zeinaloo et al (2008) ⁸⁸	Patent ductus arteriosus	Iran	2005 USD	\$1,697	\$2,066
	Atrial septal defect			\$2,739	\$3,335
	Ventricular septal defect			\$2,637	\$3,211
Chen et al (2009) ⁸⁹	Patent ductus arteriosus: surgical closure	China	2007 Chinese Yuan	¥13,841	\$4,882
	Patent ductus arteriosus: transcatheter Amplatzer occlusion			¥18,709	\$6,598
Mughal et al (2011) ⁹⁰	Open heart surgery	Pakistan	2010 USD	\$933	\$1,018
	Closed heart surgery			\$150	\$163
	Angiographic interventions			\$823	\$897
Panni et al (2011) ⁹¹	Congenital heart defects: age <1 year	Pakistan	2009 USD	\$4,054	\$4,494
	Congenital heart defects: age 1-5 years			\$5,548	\$6,150
Sadoh et al (2011) ⁹²	Patent ductus arteriosus	Nigeria	2009 USD	\$4,000	\$4,434
Liu et al (2012) ⁹³	Ventricular septal defect: percutaneous closure	China	2011 USD	\$3,870	\$4,091
	Ventricular septal defect: surgical closure			\$4,583	\$4,845
Costa et al (2014) ⁹⁴	Atrial septal defects: percutaneous closure	Brazil	2011 Brazil Real	R\$19,267	\$13,800
	Atrial septal defects: surgical closure			R\$12,431	\$8,904
ENT					
Adoga et al (2010) ⁹⁹	Chronic suppurative otitis media: middle ear reconstruction	Nigeria	2008 USD	\$463	\$511
Kerr et al (2012) ¹¹¹	Cochlear implantation	South Africa	2010 S. African Rand	R298,961	\$68,952
Wu et al (2013) ⁴⁴	Various ENT procedures	Kenya	2011 USD	\$354	\$373
General Surgery					
Asiedu et al (1998) ⁹⁸	Buruli ulcer	Ghana	1996 USD	\$659-967	\$998-1,465
Jha et al (1998) ²⁹	Appendectomy ^e	Guinea	1994 USD	\$67	\$107
	Inguinal hernia repair ^c			\$53	\$85
Afaq et al (2002) ⁴⁰	Drainage of iliopsoas abscess	Nepal	2000 USD	\$40	\$55
Hamamci et al (2002) ¹⁰⁷	Laparoscopic splenectomy	Turkey	2000 USD	\$2,064 (\$1,767-2,687)	\$2,850 (\$2,440-3,711)
	Open splenectomy			\$1,664 (\$848-3,152)	\$2,298 (\$1,171-4,353)
Paudel et al (2003) ³⁰	Appendectomy	Nepal	2003 Nepalese Rupee	Rs 2,485 (Rs 1,372-4,500)	\$178 (\$98-322)
Utpal (2005) ³¹	Laparoscopic appendectomy	India	2005 Indian Rupee	₹925	\$86
	Open appendectomy			₹923	\$86
Gangopadhyay et al (2006) ²⁸	Posterior sagittal anorectoplasty: multi-stage procedure	India	2003 Indian Rupee	₹19,000	\$1,844
	Posterior sagittal anorectoplasty: single stage procedure			₹5,000	\$485
Gosselin et al (2006) ³⁶	Various general surgery	Sierra Leone	2004 USD	\$43	\$54
Osugwe et al (2006) ³⁵	Inguinal hernia repair	Nigeria	2003 USD	\$31-43	\$40-56
Chen et al (2007) ¹⁰⁸	Laparoscopic splenectomy	China	2006 USD	\$871	\$1,028
	Open splenectomy			\$783	\$924
Pratap et al (2007) ²⁷	Hirschsprung's repair: transanal endorectal pull-through	Nepal	2005 Nepalese Rupee	Rs5,000 (Rs3,500-8,000)	\$344 (\$241-550)
Hong et al (2008) ¹⁰⁵	Laparoscopic choledochal cyst excision	China	2007 Chinese Yuan	¥19,167 (¥12,600-34,538)	\$6,760 (\$4,444-12,181)
Vasquez et al (2009) ⁹⁵	Cystic echinococcosis	Peru	2005 USD	\$831 (\$564-1,610)	\$1,012 (\$687-1,960)
Shillcutt et al (2010) ³⁶	Inguinal hernia repair	Ghana	2008 USD	\$120	\$132
Yang et al (2010) ⁹⁶	Cystic echinococcosis	China	2002 USD	\$208-540	\$275-714
Sancaktutar et al (2012) ¹¹⁰	Removal of ureteral stents	Turkey	2010 USD	\$1,225 (\$330-3,800)	\$1,336 (\$360-4,144)
Wang et al (2012) ⁹⁷	Cystic echinococcosis	China	2008 USD	\$1,493	\$1,644
Banu et al (2013) ³⁷	Inguinal hernia repair	Bangladesh	2011 USD	\$21	\$22
Ilbawi et al (2013) ⁵⁰	Various general surgery	Cameroon	2007 USD	\$215	\$246
Ramachandran et al (2013) ¹⁰⁶	Kidney transplantation	India	2011 USD	\$7,881 (\$2,151-23,792)	\$8,332 (\$2,274-25,153)
Shillcutt et al (2013) ³⁸	Inguinal hernia repair	Ecuador	2011 USD	\$499	\$526
Wu et al (2013) ⁴⁴	Various general surgery	Kenya	2011 USD	\$1,156	\$1,218
Wu et al (2014) ³²	Appendectomy: single-site laparoscopic procedure	China	2013 Chinese Yuan	¥12,282	\$3,643
	Appendectomy: 3-port laparoscopic procedure			¥12,187	\$3,615
Eeson et al (2015) ³⁹	Inguinal hernia repair	Uganda	2010 USD	\$87	\$95

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Neurosurgery					
Fandino-Franky et al (2000) ⁷⁸	Epilepsy: corpus callosotomy	Colombia	1999 USD	\$3,137-3,995	\$4,478-5,702
Rao et al (2000) ⁷⁹	Epilepsy: anterior temporal lobe lobectomy	India	1998 USD	\$1,200	\$1,751
Roux et al (2007) ⁸¹	Frontoethmoidal meningoencephalocoele repair	Cambodia	2006 USD	\$380	\$448
Gollogly et al (2008) ⁸²	Frontoethmoidal meningoencephalocoele repair	Cambodia	2007 USD	\$300-500	\$344-573
Oucheng et al (2010) ⁸³	Frontoethmoidal meningoencephalocoele repair	Cambodia	2009 USD	\$380	\$421
Warf et al (2011) ⁸⁶	Hydrocephalus	Uganda	2005 USD	\$746	\$905
Wu et al (2013) ⁴⁴	Various neurological operations	Kenya	2011 USD	\$608	\$641
Davis et al (2014) ⁸⁷	Various neurological operations	Guatemala	2014 USD	\$3,127	\$3,131
Ophthalmology					
Evans et al (1996) ⁸⁴	Trichiasis surgery	Burma	1990 USD	\$1,099	\$1,993
Baltussen et al (2005) ⁸⁵	Trichiasis surgery	Africa	2000 Int. \$	\$19	\$26
		Americas		\$19	\$26
		Mediterranean		\$19	\$26
		Southeast Asia		\$19	\$26
		Western Pacific		\$19	\$26
Prajna et al (2007) ⁸⁴	Corneal ulcers	India	2004USD	\$86 (\$76-95)	\$108 (\$96-119)
Murithi et al (2008) ⁸²	Ocular trauma	Kenya	2004 USD	\$70 (\$4-497)	\$88 (\$5-626)
Agarwal et al (2010) ⁸⁰	Cataract repair	Various Africa ^c	2007 USD	\$340 (\$90-1,100)	\$390 (\$103-1,262)
Gogate et al (2010) ⁸¹	Cataract repair	India	2007 USD	\$122-475	\$140-545
Baltussen et al (2012) ⁸⁶	Trichiasis surgery	Sub-Saharan Africa	2005 Int. \$	\$81	\$98
	Cataract repair			\$107	\$130
	Trichiasis surgery	Southeast Asia		\$575	\$698
	Cataract repair			\$9	\$11
Dave et al (2012) ¹⁰⁹	Laser treatment for retinopathy of prematurity	Peru	2010 USD	\$2,496	\$2,722
Gradin et al (2012) ⁸²	Cataract repair	Kenya	2009 USD	\$274-344	\$304-381
Evans et al (2014) ⁸³	Cataract repair	Malawi	2011 USD	\$202	\$214
		Zambia		\$277	\$293
Orthopedics					
Grimes et al (2014) ⁸⁷	Various orthopedic procedures	Malawi	2012 USD	\$11-134	\$11-138
Gurses et al (2003) ⁶⁸	Pediatric trauma: major surgical treatment	Turkey	1999 USD	\$929 (\$63-1,995)	\$1,326 (\$90-2,848)
	Pediatric trauma: minor procedures			\$355 (\$41-1,550)	\$506 (\$59-2,212)
Padhi et al (2007) ⁷⁴	Open tibial injuries	India	2006 USD	\$100	\$118
Gosselin et al (2008) ⁶⁹	Various orthopedic procedures	Cambodia	2006 USD	\$117	\$138
Dada et al (2009) ⁷⁰	Musculoskeletal injuries	Nigeria	2005 USD	\$34-98	\$41-119
Gosselin et al (2009) ⁷⁵	Femoral shaft fractures	Cambodia	2008 USD	\$888-1,107	\$981-1,223
Hsu et al (2009) ⁷⁶	Femoral fractures: elastic intramedullary nailing	Philippines	2006 USD	\$844	\$996
	Femoral fractures: dynamic skeletal traction spica casting			\$216	\$255
Reddy et al (2009) ⁷¹	Various orthopedic injury procedures	India	2004 USD	\$104	\$130
Adegbehingbe et al (2010) ⁸³	Ponseti clubfoot management	Nigeria	2009 USD	\$217	\$240
Akinyoola et al (2011) ⁷⁷	Femoral shaft fractures	Nigeria	2007 USD	\$51 (\$14-190)	\$59 (\$16-218)
Gosselin et al (2011) ⁷²	Various orthopedic procedures	Nicaragua	2010 USD	\$1,483	\$1,612
		Dominican Republic		\$1,483	\$1,612
		Haiti		\$1,201	\$1,305
Chen et al (2012) ⁷³	Various orthopedic procedures	Nicaragua	2010 USD	\$711	\$771
Alinia et al (2013) ¹⁰³	Amputation	Iran	2009 USD	\$3,471	\$3,848
Wu et al (2013) ⁴⁴	Various orthopedic procedures	Kenya	2011 USD	\$368	\$388
Perveen et al (2014) ⁸⁴	Ponseti clubfoot management	Bangladesh	2011 USD	\$38	\$41
Plastic and Reconstructive Surgery					
Hodges et al (2000) ⁸⁸	Cleft lip & palate	Uganda	1999 British Pound	£27	\$160
Nursal et al (2003) ¹⁰⁰	Various burn injuries	Turkey	2001 USD	\$7,716	\$10,361
Tollefson et al (2006) ⁵⁹	Cleft lip & palate	China	2004 USD	\$1,590	\$2,002
Corlew (2010) ⁶⁰	Cleft lip & palate	Nepal	2005 USD	\$275	\$334
Magee Jr. et al (2010) ⁶¹	Cleft lip & palate	Vietnam	2008 USD	\$86-230	\$95-253
		Nicaragua		\$631	\$695
		Kenya		\$432	\$476
Allorto et al (2011) ¹⁰¹	Various burn injuries	South Africa	2007 S. African Rand	R103,000-154,000	\$28,425-42,499
Moon et al (2012) ⁶⁴	Cleft lip & palate	Vietnam	2010 USD	\$335	\$364
Alinia et al (2013) ¹⁰³	Burns, first degree	Iran	2009 USD	\$599	\$664
	Burns, second degree			\$1,486	\$1,647
	Burns, third degree			\$4,342	\$4,813
Poenaru (2013) ⁶⁵	Cleft lip & palate	Africa	2010 USD	\$758	\$824
		Americas		\$633	\$688
		Europe		\$446	\$485
		Middle East		\$867	\$942
		Southeast Asia		\$759	\$825
		Western Pacific		\$817	\$888
Rattray et al (2013) ⁴³	Various reconstructive procedures	Cambodia	2012 USD	\$480	\$496
Wu et al (2013) ⁴⁴	Various reconstructive procedures	Kenya	2011 USD	\$384	\$405
Zhu et al (2013) ¹⁰²	Various burn injuries	China	2010 Chinese Yuan	¥4,253	\$1,354

	Intervention	Location	Currency	Cost per outcome, as reported ^a	Cost per outcome, 2015 USD ^b
Urology					
Manji (2000) ⁴⁶	Circumcision	Tanzania	1998 USD	\$15-20	\$22-29
Ekenze et al (2007) ⁴¹	Genital reconstruction	Nigeria	2005 USD	\$120 (\$100-150)	\$146 (\$122-183)
Gray et al (2007) ⁴⁷	Circumcision	Uganda	2006 USD	\$69	\$81
Binagwaho et al (2010) ⁴⁵	Circumcision	Rwanda	2008 USD	\$15	\$17
Njehumeli et al (2011) ⁴⁸	Circumcision	Botswana	2010 USD	\$78 (\$62-94)	\$85 (\$68-102)
		Lesotho		\$84 (\$67-101)	\$91 (\$73-110)
		Malawi		\$84 (\$67-101)	\$91 (\$73-110)
		Mozambique		\$86 (\$69-104)	\$94 (\$75-113)
		Namibia		\$87 (\$69-104)	\$94 (\$76-113)
		Kenya		\$75 (\$60-90)	\$82 (\$65-98)
		Rwanda		\$80 (\$64-96)	\$87 (\$70-105)
		South Africa		\$95 (\$76-114)	\$104 (\$83-125)
		Swaziland		\$75 (\$60-90)	\$82 (\$65-98)
		Tanzania		\$83 (\$66-99)	\$90 (\$72-108)
		Uganda		\$66 (\$53-79)	\$72 (\$57-86)
		Zambia		\$90 (\$72-108)	\$98 (\$78-117)
		Zimbabwe		\$78 (\$63-94)	\$85 (\$68-102)
		Tumwesigyea et al (2013) ⁴⁹	Circumcision	Uganda	2009 USD
Wu et al (2013) ⁴⁴	Various urologic operations	Kenya	2011 USD	\$713	\$751

Abbreviations include: ENT ear, nose & throat; DALY disability-adjusted life-year; LYS life-year saved; LYG life-years gained; HALY health-adjusted QALY quality-adjusted life-year; USD United States dollar; Int. \$ International dollars (a hypothetical currency unit with the same purchasing power U.S. dollar has in the United States at a given time).

^a Values converted to a per-procedure basis using information presented in article if not reported as such.

^b Values converted to USD using purchasing power parity conversion factors from the World Bank¹⁶ and inflated to 2015 USD using the Consumer Price calculator.¹⁷

^c Includes South Africa, Malawi, Tanzania, Kenya, Uganda, Ethiopia, Sudan, Nigeria, Angola, Ghana, and Mali.