

**APPENDIX****Appendix S1. SURVEY****For how many years have you been an active clinician?**

- a. <1 year
- b. 1-5years
- c. 6-10 years
- d. 11-15 years
- e. 16-20 years
- f. More than 20 years

**In which global region (s) do you work? (Select as many as appropriate)**

- a. High income countries (North America, Western Europe, Australia, New Zealand, Japan, South Korea)
- b. Sub-Saharan Africa
- c. Middle East and North Africa
- d. East Asia and Pacific
- e. South Asia
- f. Eastern Europe and Central Asia
- g. Latin America and the Caribbean
- h. Other:

**If you selected more than one region above, in which setting do you primarily work?**

- a. High income countries (North America, Western Europe, Australia, New Zealand, Japan, South Korea)
- b. Sub-Saharan Africa
- c. Middle East and North Africa
- d. East Asia and Pacific
- e. South Asia
- f. Eastern Europe and Central Asia
- g. Latin America and the Caribbean
- h. Other:

**What type of clinical services do you provide (Choose all that apply)?**

- a. General Obstetrics
- b. General Gynecology
- c. Both, general obstetrics & gynecologic services
- d. Fistula services
  - a. Surgical only
  - b. Catheter/non-surgical only
  - c. Both surgical and non-surgical services
- e. General Surgery

- a. Credentialed general surgeon
- b. General medical officer
- c. Task-shifted basic surgical services clinician
- f. Urology
- g. Colorectal Surgery
- h. Anesthesia
- i. Nursing, physiotherapy, social work
- j. Family Medicine
- k. None of the above

**If you are a surgeon performing fistula repairs, how many fistula repairs did you perform last year?**

- a. 0-10
- b. 11-50
- c. 51-100
- d. >100
- e. I am not a surgeon performing fistula repairs

**If you attend labor and delivery care, how many cases of prolonged/obstructed labor did you manage last year?**

- a. 0-10
- b. 11-50
- c. 51-100
- d. >100
- e. I do not attend labor and delivery care

**What proportion of the patients who presented last year for fistula repairs were from the following causes:**

	I don't know	<10% of patients	10-24%	25-50%	51-75%	76-90%	>90% of patients
Prolonged obstructed labor							
Iatrogenic (eg. Errors during caesarean sections, hysterectomy, or other surgical procedures.							

Accidental Trauma							
Sexual Violence							
Congenital defect							
Cancer (or its treatment)							
Infection							
Inflammatory disease							

**For the following section:**

If you perform fistula repairs, in the last year, what proportion of your fistula patients who suffered from prolonged obstructed labor presented with the following symptoms or consequences:

If you do not perform fistula repairs but do **attend labor and delivery care**, in the last year, what proportion of your prolonged obstructed labor patients developed the following symptoms or consequences? (If you did not manage patients long enough to observe the consequences please select “I don’t know”)

	I don't know	<10% of patients	10-25%	26-50%	51-75%	76-90%	>90% of patients
<b>PELVIC FLOOR DISORDERS</b>							
Urinary Tract Fistula							
Colorectal Tract Fistula							
Significant incontinence (urinary and/or colorectal) <b>without</b> fistula							
Significant incontinence (urinary and/or colorectal) <b>with</b> fistula							
Pelvic Organ Prolapse [only, no bladder symptoms]							
Pelvic Organ Prolapse with urinary and/or colorectal incontinence and/or evacuation phase symptoms <sup>1</sup>							
<b>SEXUAL AND REPRODUCTIVE HEALTH</b>							
Self-reported infertility and/or lack of menses on history							

Infertility due to cervical necrosis, cervical stenosis or cervical defect							
Vaginal fibrosis or stenosis (with or without dyspareunia)							
Secondary renal disease eg. hydronephrosis							
<b>MUSCULOSKELETAL</b>							
Foot drop							
Diastasis pubis							
Chronic pelvic pain							
<b>Infectious Diseases</b>							
Osteomyelitis							
Sepsis							
Necrotizing fasciitis							
Other							
<b>MENTAL HEALTH</b>							
Symptoms of anxiety and/or depression							
Symptoms of post-traumatic stress disorder							
Grieving still born							
Other mental health issues							
<b>NEONATAL OUTCOMES</b>							
Infant with sequelae consistent with intrapartum hypoxia (eg. Neurologic damage, cerebral palsy, paralysis, etc)							
Had a stillborn							
<b>SOCIAL IMPACT</b>							
Suffer from abandonment							
Suffer from stigma							
Unable to maintain pre-fistula income generation							
Got divorced as a result of medical condition							



## Appendix S2. Sensitivity Analysis results

	GBD 2017	Mean 7.35yr duration		Mean 10yr duration		Mean 17 yr duration		Mean Fistula duration		Median 7.35yr duration		Median 10 yr duration		Median 17yr duration		Median Fistula duration	
		Calculated	%Change	Calculated	%Change	Calculated	%Change	Calculated	%Change	Calculated	%Change	Calculated	%Change	Calculated	%Change	Calculated	%Change
Afghanistan	1696.9	2640.1	55.6	2891.3	70.4	3554.7	109.5	2240.1	32.0	2728.2	60.8	3005.9	77.1	3738.1	120.3	2287.3	34.8
Angola	1973.4	3115.0	57.8	3439.2	74.3	4295.6	117.7	2639.8	33.8	3231.0	63.7	3589.5	81.9	4534.7	129.8	2707.3	37.2
Bangladesh	6809.0	11100.4	63.0	12369.7	81.7	15722.7	130.9	8989.1	32.0	11540.6	69.5	12944.1	90.1	16644.4	144.4	9213.2	35.3
Benin	2814.7	3965.5	40.9	4251.3	51.0	5006.1	77.9	3795.8	34.9	4082.0	45.0	4398.0	56.3	5231.0	85.8	3895.4	38.4
Bhutan	37.3	63.1	69.2	70.8	89.7	91.0	143.8	49.7	33.2	65.7	76.2	74.2	98.9	96.5	158.6	50.9	36.5
Botswana	142.4	236.7	66.3	263.7	85.2	334.9	135.3	193.4	35.9	246.2	72.9	276.0	93.9	354.6	149.1	198.5	39.4
Burkina Faso	2142.2	3075.8	43.6	3321.8	55.1	3971.8	85.4	2844.3	32.8	3171.2	48.0	3443.3	60.7	4160.6	94.2	2916.3	36.1
Burundi	4696.6	6471.6	37.8	6899.0	46.9	8028.2	70.9	6336.4	34.9	6652.6	41.6	7125.3	51.7	8371.4	78.2	6504.4	38.5
Cameroon	3193.7	4761.2	49.1	5184.7	62.3	6303.5	97.4	4276.6	33.9	4920.6	54.1	5388.9	68.7	6623.6	107.4	4386.7	37.4
Cape Verde	24.5	41.3	68.7	46.4	89.5	59.8	144.4	32.3	31.9	43.0	75.8	48.6	98.8	63.5	159.4	33.1	35.2
Central African Republic	755.7	1107.3	46.5	1196.0	58.3	1430.3	89.3	1031.7	36.5	1142.1	51.1	1240.2	64.1	1498.8	98.3	1058.9	40.1
Chad	1303.8	1945.2	49.2	2116.7	62.3	2569.5	97.1	1739.4	33.4	2009.2	54.1	2198.8	68.6	2698.5	107.0	1782.4	36.7
Comoros	314.0	428.4	36.4	455.7	45.1	527.7	68.1	423.1	34.8	440.1	40.2	470.3	49.8	549.8	75.1	434.3	38.3
Congo	283.4	464.1	63.8	516.4	82.2	654.5	131.0	380.6	34.3	482.5	70.3	540.3	90.7	692.7	144.4	390.4	37.8
Cote d'Ivoire	3569.8	5153.9	44.4	5556.6	55.7	6620.3	85.5	4817.7	35.0	5312.6	48.8	5757.8	61.3	6931.8	94.2	4942.4	38.5
Democratic Republic of the Congo	6627.7	10288.8	55.2	11299.3	70.5	13968.4	110.8	8932.3	34.8	10657.7	60.8	11775.0	77.7	14720.7	122.1	9162.8	38.2
Djibouti	284.0	398.0	40.1	426.6	50.2	502.3	76.9	381.5	34.3	409.7	44.2	441.4	55.4	524.9	84.8	391.5	37.9
Equatorial Guinea	53.2	92.1	73.3	104.0	95.7	135.3	154.6	70.3	32.3	96.1	80.9	109.3	105.5	143.8	170.6	72.1	35.6
Eritrea	1230.5	1807.2	46.9	1958.9	59.2	2359.5	91.8	1660.0	34.9	1865.8	51.6	2033.5	65.3	2475.7	101.2	1703.7	38.5
Ethiopia	43956.9	61093.3	39.0	65293.7	48.5	76389.1	73.8	59257.6	34.8	62843.5	43.0	67487.8	53.5	79732.9	81.4	60826.3	38.4
Gabon	110.5	181.2	64.0	201.5	82.4	255.1	131.0	149.1	35.0	188.3	70.5	210.8	90.8	270.0	144.4	153.0	38.5
Ghana	3564.0	5236.1	46.9	5689.1	59.6	6885.8	93.2	4748.4	33.2	5408.3	51.7	5909.3	65.8	7230.0	102.9	4871.0	36.7
Guinea	2766.6	3949.2	42.7	4245.0	53.4	5026.4	81.7	3742.1	35.3	4068.0	47.0	4395.1	58.9	5257.5	90.0	3840.1	38.8
Guinea-Bissau	288.6	416.1	44.2	448.7	55.5	534.8	85.3	388.8	34.7	429.0	48.6	465.0	61.1	560.0	94.0	398.9	38.2
India	74841.2	117664.9	57.2	129746.2	73.4	161659.0	116.0	100103.6	33.8	121999.0	63.0	135357.2	80.9	170576.6	127.9	102643.2	37.1
Kenya	16447.9	23184.3	41.0	24868.0	51.2	29315.6	78.2	22189.5	34.9	23871.1	45.1	25732.8	56.5	30641.2	86.3	22776.8	38.5

Lesotho	370.0	538.5	45.5	579.3	56.6	687.1	85.7	509.8	37.8	554.8	50.0	600.0	62.2	718.9	94.3	523.3	41.4
Liberia	470.1	710.9	51.2	773.6	64.6	939.5	99.8	639.0	35.9	734.5	56.2	803.9	71.0	986.9	109.9	655.4	39.4
Madagascar	9369.8	13009.5	38.8	13899.6	48.3	16251.1	73.4	12629.1	34.8	13380.9	42.8	14365.1	53.3	16960.2	81.0	12962.9	38.3
Malawi	2389.9	4004.8	67.6	4483.9	87.6	5749.6	140.6	3194.2	33.7	4170.2	74.5	4699.9	96.7	6096.7	155.1	3276.6	37.1
Mali	1972.6	2876.7	45.8	3117.7	58.0	3754.4	90.3	2620.6	32.8	2968.6	50.5	3235.1	64.0	3937.7	99.6	2686.4	36.2
Mauritania	390.8	578.5	48.0	630.6	61.4	768.2	96.6	517.2	32.3	598.0	53.0	655.6	67.8	807.4	106.6	530.4	35.7
Mozambique	9938.9	14199.1	42.9	15247.3	53.4	18016.3	81.3	13530.9	36.1	14623.9	47.1	15782.9	58.8	18838.8	89.5	13888.7	39.7
Namibia	176.2	282.9	60.5	312.9	77.5	392.2	122.5	238.5	35.3	293.6	66.6	326.8	85.4	414.3	135.1	244.7	38.8
Nepal	1114.5	1867.9	67.6	2095.5	88.0	2696.5	141.9	1460.3	31.0	1945.2	74.5	2196.8	97.1	2860.1	156.6	1495.8	34.2
Niger	1799.6	2830.5	57.3	3129.1	73.9	3918.0	117.7	2371.7	31.8	2936.2	63.2	3266.4	81.5	4137.0	129.9	2430.6	35.1
Nigeria	38693.1	54757.4	41.5	58720.4	51.8	69188.7	78.8	52067.9	34.6	56354.1	45.6	60735.9	57.0	72288.9	86.8	53394.1	38.0
Pakistan	37920.0	54048.8	42.5	58170.7	53.4	69058.7	82.1	50974.2	34.4	55693.7	46.9	60251.2	58.9	72267.4	90.6	52309.1	37.9
Rwanda	2740.3	3980.4	45.3	4302.0	57.0	5151.7	88.0	3696.4	34.9	4106.2	49.8	4461.9	62.8	5399.6	97.0	3793.5	38.4
Sao Tome and Principe	8.3	14.0	69.5	15.7	90.7	20.3	146.5	10.8	31.0	14.6	76.7	16.5	100.1	21.6	161.7	11.1	34.2
Senegal	503.4	818.8	62.6	909.8	80.7	1150.5	128.5	669.0	32.9	850.4	68.9	951.2	88.9	1216.7	141.7	685.4	36.1
Sierra Leone	1706.0	2421.1	41.9	2597.2	52.2	3062.5	79.5	2311.4	35.5	2492.6	46.1	2687.4	57.5	3200.9	87.6	2371.9	39.0
Somalia	4305.2	6122.6	42.2	6578.0	52.8	7781.0	80.7	5815.5	35.1	6306.2	46.5	6809.7	58.2	8137.3	89.0	5968.2	38.6
South Africa	4807.6	7431.7	54.6	8147.0	69.5	10036.6	108.8	6518.3	35.6	7695.5	60.1	8486.4	76.5	10571.8	119.9	6689.0	39.1
South Sudan	4762.3	6505.4	36.6	6894.5	44.8	7922.2	66.4	6504.7	36.6	6677.2	40.2	7107.3	49.2	8241.5	73.1	6677.2	40.2
Sudan	4851.9	7152.1	47.4	7752.2	59.8	9337.2	92.4	6549.0	35.0	7382.7	52.2	8046.2	65.8	9795.5	101.9	6718.3	38.5
Swaziland	92.4	148.3	60.4	164.0	77.4	205.5	122.3	125.1	35.3	153.9	66.4	171.3	85.3	217.1	134.8	128.3	38.8
Tanzania	11323.2	15470.3	36.6	16469.7	45.5	19109.8	68.8	15190.1	34.1	15895.6	40.4	17000.7	50.1	19914.3	75.9	15588.5	37.7
The Gambia	191.3	293.8	53.6	321.8	68.2	395.7	106.9	257.2	34.5	304.1	59.0	335.0	75.1	416.6	117.8	263.7	37.9
Togo	1007.5	1460.2	44.9	1578.6	56.7	1891.4	87.7	1351.5	34.1	1506.3	49.5	1637.2	62.5	1982.4	96.8	1386.5	37.6
Uganda	19070.8	26538.4	39.2	28374.3	48.8	33223.9	74.2	25709.4	34.8	27301.9	43.2	29331.8	53.8	34683.9	81.9	26390.8	38.4
Yemen	5615.1	8195.0	45.9	8814.0	57.0	10449.1	86.1	7710.2	37.3	8440.7	50.3	9125.1	62.5	10929.6	94.6	7906.9	40.8
Zambia	4029.7	5846.3	45.1	6320.2	56.8	7572.0	87.9	5423.1	34.6	6031.4	49.7	6555.4	62.7	7937.0	97.0	5565.4	38.1
Zimbabwe	2131.1	3150.8	47.8	3414.8	60.2	4112.1	93.0	2895.1	35.8	3252.8	52.6	3544.7	66.3	4314.3	102.4	2971.2	39.4
Total	351680.1	514135.2	46.2	556674.8	58.3	669043.6	90.2	472903.7	34.5	530569.9	50.9	577605.7	64.2	701617.5	99.5	485154.9	38.0