

Appendix 2. Data extraction

Title/Author, Year of publication	Cancer type	Setting Country	Data collection timeframe	Participants	Sample size and design	Patient factors	Distance from hospital	Reasons for delay and outcomes
Impact of Essential Medicine Stock Outs on Cancer Therapy Delivery in a Resource-Limited Setting. Yehoda M. Martei, 2019	cervical breast prostate esophageal lung uterine ovarian colorectal head and neck cancers Kaposi sarcoma	Hospital Botswana	1st January 2016 to 31st December 2016	Patients	286 Retrospective cohort	Male 77 Female 180 Unknown 29<65yrs =217 > 65yrs=61 Unknown=8		-each week of stock out was strongly associated with a suboptimal therapy delivery event AL1(OR, 1.81; 95% CI, 1.62 to 2.02). -Every week of stock-out duration was associated with an almost two-fold increased risk of a suboptimal therapy delivery event (OR, 1.9; 95%CI, 1.7 to 2.13; P,.001). - patients receiving treatment regimens for colon (OR, 6.34;95% CI, 3.11 to 12.9;P,.001) or rectal cancer (OR, 7.07;95% CI, 1.83 to 27.3;P=.004) were at the highest risk of an event after adjusting for stock out, whereas those with prostate cancer were less likely than their counterparts to experience a suboptimal therapy delivery event (adjusted OR, 0.24; 95% CI, 0.08 to 0.79;P=.019 -The measured exposure was chemotherapy stock out, quantified as the duration of chemotherapy stock out within a cycle interval. -Stock-out duration was calculated by counting the days from the date the drug was out of stock to the date it was recorded as being back in stock. -The primary outcome, suboptimal therapy delivery, was defined as any of the following events: any dose reduction, at least 1-week delay in receipt of therapy, any missed dose, and any switch in intended therapy. - A majority of the patients with stage information had either stage III or IV disease. Of patients with known intent of treatment, 51%were receiving curative regimens and 49% were receiving noncurative regimens-chemotherapy stock outs
Patient Factors Associated With Delays in Obtaining Cancer Care in Botswana. Rhine K Bhatia 2018	All cancers Cervical 90 (42.3%) Breast 34 (16.0%) Head and neck 34 (16.0%) Vulvar 15 (7.04%) Kaposi's sarcoma 14 (6.7%) Endometrial 7 (3.3%) Penile 5 (2.4%) Anal 5 (2.4%) Oesophageal 5 (2.4%) Lymphoma 3 (1.4%) Prostate 1 (0.5%)	Hospital Botswana	December 2015 - January 2017	Patients	214 Questionnaire	not stated not statedSingle 132 (62.9%) Married 47 (22.4%) serious or live-in 16 (7.7%) Separated/ widowed 15 (7.1%)None 28 (16.2%) Primary 59 (34.1%) Secondary 70 (40.5%) Tertiary or above 16 (9.3%)Women 173 (81.3%) Men 41 (19.2%)median age of 46 years (21-95 years)	5-50 km 67 (32.7) 51-200 km 61 (29.8) 201-400 km 34 (16.6) > 400 km 43 (30.0)	English literacy: Can read in English, p=0.042 OR 2.32; Cancer diagnosis site: Breast p=0.017 OR 3.73; Head and neck p=0.017 OR 93.73Predominantly female cancer p=0.015 OR 0.452; Relationship status: separated/widowed p=0.032 OR 0.3Appraisal delay; Female sex p=0.032 OR 0.45; Education level: primary schooling p=0.057 OR 0.367; Distance from PMH (201-400 km) p=0.056 OR 2.5; Cancer diagnosis site Kaposi sarcoma p<.001 OR 9.77; Penile cancer p=0.029 OR 8.14; Symptom severity A little serious p=0.001 OR 0.14; Very serious p=0.020 OR 0.402;Predominantly female cancer p=0.005 OR 0.4 ; Help-seeking delay No. of family members: 4-10 p=0.03 OR 0.314; Symptom severity: very serious p=0.012 OR 0.384; Cancer diagnosis site: Vulvar p=0.055 OR 2.97; Kaposi sarcoma p=0.011 OR 4.68Beliefs: - declining treatment: getting cancer is part of God's plan p=0.0416 - 28/115 (2.74%)Appraisal - sex, p=0.030: male 16 (39%); female 39 (22.5%) - severity of symptoms, p=0.006: not serious 22 (44.9%); a little serious 4 (10.3%); moderately serious 5 (21.7%); serious 5 (23.8%) very serious 19 (24.7%) - cancer site, p=0.011:Cervical 14 (15.6%); Vulvar 5 (33.3%); Anal 1 (20%); Head and neck 9 (26.5%); Penile 3 (60%); Breast 8 (23.5%); Lymphoma 2 (66.7%) Oesophageal 2 (40%) Kaposi sarcoma 9 (64.3%) Endometrial 2 (28.6%) Prostate 0 - age, p=0.496 Fears - Scared of telling people that I am sick, p=0.006 4/213 (0.212%) - Scared of job loss, p=0.002 6/171 (90.22%) - Scared of surgery p=0.0415 8/206 (0.378%) - Scared of radiation therapy p=0.0253 8/211 (0.352%) - Scared of chemotherapy p=0.0339 12/213 (0.420%) - Scared of missing family commitments as a result of treatment p=0.0061 4/210 (0.212%) - Scared of death p=0.0169 13/213 (0.392%) Beliefs - death is near p=0.0406 9/210 (0.393%)
Factors related to advanced stage of cancer presentation in Botswana Chidima Anakweke 2018	Response rate 99.53% n=220. cervical 90 breast 32 , head and neck 42 , vulvar 15, kaposi sarcoma 14, endometrial 7,penile 6, anal 5, esophageal 5,lymphoma 3 prostate 1	Hospital Botswana	December 2015 to January 2017	Patients	214 Questionnaire	Single early 41 (19.5%) late 40 (19.0%) unknown =51 (24.3%) Married/in a serious relationship early 9 (4.3%) late 24 (11.4%) unknown 22 (10.5%) Living with a partner early 3 (1.4%) late 4 (1.9%) stage 1 (0.5%) Divorced/separated/widowed early 3 (1.4%) late 6 (2.9%) stage 6 (2.9%)No formal education early 6 (3.4%) late 11 (6.3%) unknown 11 (6.3%)	5-50 km early 15 (7.3%) late 29 (14.1%) unknown =23 (11.2%) 51-200km early 20 (9.7%) late 19 (9.2%) unknown 22 (10.7%) 201-400km early 12 (5.8%) late stage 7 (3.4%) unknown15 (7.3%) > 400 early 9 (4.4%) late 19 (9.2%) unknown 15 (7.3%) Unable to locate village unknown 1 (0.5%)	- not afraid of having cancer OR, 3.48; P < .05 - no family to care during treatment OR, 6.35; P = .05 -could not afford to develop cancer (OR, 2.73; P < .05) - belief use of contraceptive pills or injections causes cancer OR (0.72 P=0.02) - belief using hormone replacement pills after menopause can cause cancer OR (0.96 p=0.01)-Transportation problems; Dependent on others for transportation
Factors associated with delays to surgical presentation in North-West Cameroon Chao Long 2015	-skin -breast -colorectal -gynecologic -anal	Hospital Cameroon	23rd June,2014 - 5th August 2014	Patients	220 Other: cross sectional	-less than primary school completed 37(16.8%) -completed primary school 115 (52.3%) -secondary school or higher education completed 68 (30.9%)134 Males 86 females -cancer cohort had 19 males and 40 females15 to 20 yrs 4 21 to 29 yrs 7 30 to39 yrs 7 40to 49 yrs 8 50 to 59 yrs 14 60 to 69 yrs 13 70 to 79 yrs 5 80+ yrs 1		-thought another health care provider could provide adequate or better care -Lack of knowledge about MBH hospital -cost of hospital fees -need for first aid/emergency care at the nearest facility -in ability to participate in care decisions due to mental state -transportation -inability to take time from work/commitments -belief that they were not sick enough -belief that they could treat themselves
Late-Stage Diagnosis and Associated Factors Among Breast Cancer Patients in South and Southwest Ethiopia: A Multicenter Study Aragaw Tesfaw 2020	Breast	Regional Ethiopia	January 2013 - December 2017	Patients	426 Retrospective cohort	not stated not statedMale 28 (6.6%) Female 398 (93.4%)mean 42.78 +/- 13.4	not stated	- breast lump or mass as the chief complaint were 3 times more likely to be diagnosed with late-stage disease than those who did not (AOR= 3.01; 95% CI, 1.49-6.07)late-stage disease: rural communities 224 patients (73%), urban areas 85(28%) -female patients (74.4%), male patients 46.4% -long patient delay 240 patients (77.2%) -long total delay vs short total delay (77.4% vs. 67.3%, respectively,P<0.05)not statednot statednot statednot stated
Factors associated with delayed diagnosis of cervical cancer in tikar ambesa specialized hospital, Ethiopia, 2019: Cross-sectional study Shegaw Zeleke 2021	Cervical	Hospital Ethiopia	not stated	Patients	410 Other: case note review and interview	Farmer 182 (44.4 %) Governmental 27 (6.6%) Private 54 (13.2%) Unemployed 147 (35.9%) not statedMarried 285 (69.5%) Single 11 (2.7%) Divorced 36 (8.8%) Widowed 78 (19.0%)Cannot read and write 205 (50%)100% Femalemean age 50 years (+/- 11.5)	<100 km 106 25.9% >100 km 304 74.1%	not statednot statednot statednot statednot stated- Accept as cancer cannot heal - Go to traditional healers - Difficulty of decision - Can be healed by itself - Given priority for other diseases - Embarrassment - Unawareness of cervical cancer health service access

Delayed initiation of adjuvant chemotherapy among women with breast cancer in Addis Ababa, Ethiopia Alem Gebremariam 2021	Breast	Regional Ethiopia	January 2017 - December 2019	Patients	223 Other: Retrospective review and interviews Homemaker 102 (45.7%); Employed (governmental and private) 79 (35.4%); Daily laborer 29 (12.9%) Other (retired, no job) 13 (5.7%) <61.0 US dollar 58 (26%); 61.0-94.0 US dollar 107 (48.0%); >194.0 US dollar 58 (26%) Not stated/literate 37 (16.6%); Primary school 60 (26.9%); Secondary school 69 (30.9%); Diploma and above 57 (25.6%) 100% female <40 years 104 (46.6%); 40-49 years 51	not stated	- the risk of delay was significantly higher among women with lower monthly family income, p=0.002 - Women with a monthly income of US\$<61.0 had a three times higher risk of delay (RR=3.98; 95% CI 1.67-9.46) compared to those women with a family monthly income of US\$>194.0 not stated not stated not stated not stated
Adherence to Newly Implemented Tamoxifen Therapy for Breast Cancer Patients in Rural Western Ethiopia Christian Felix Rebeld 2020	Breast	Hospital Ethiopia	January 2010 - December 2015	Patients	51 Other: questionnaire and interviews Housewife 28 (57%) Farmer 17 (35%) Student 1 (2%) Other 3 (6%) not stated/Married 38 (93%) Not married 3 (7%) Literate (n = 38), No 31 (77%) Yes 9 (23%) 100% female mean 45 years (35-51)	not stated	not stated not stated not stated- lack of consent - problems on the health care provider side (12; 48%) where patients had not been given an appointment (n = 9), the physician was absent (n = 2), and other (n = 1). - Reasons on the patient side (13; 52%) included lack of money (n = 2), too far to travel (n = 1), fear of treatment (n = 1), and private reasons (n = 1). - No information was available for 8 patients. not stated not stated
Factors associated with advanced stage at diagnosis of cervical cancer in Addis Ababa, Ethiopia: A population-based study Nebiyu Dereje 2020	Cervical	Regional Ethiopia	1st January 2017 to 30th June 2018	Patients	212 Other: Questionnaire, case notes <3200 ETB =142 (67.5%) monthly >3200 ETB =69(32.5%) No formal education 86 (40.6%) -Yes formal education 126 (59.4%) Female =212<40 yrs=42 (19.8%) 40-59 yrs=103 (48.6%) >60 yrs =67 (31.6%)		-Religious practices/Did nothing APR=1.25, 95% CI: 1.05 to 1.53 , p=0.02 -visited >3 different healthcare facilities prior to diagnostic confirmation APR=1.24, 95% CI: 1.08 to 1.91 p=0.01 - Out of pocket medical expenses APR 1.44 (1.08-1.91), p=0.003 not stated -visiting more than three different health care facilities before diagnostic confirmation-medical expenses -not going to facility immediately after symptom recognition
Extent and predictors of delays in diagnosis of cervical cancer in Addis Ababa, Ethiopia: A population-based prospective study Nebiyu Dereje 2020	Cervical	Regional Ethiopia	1st January 2017 to 30th June 2018	Patients	231 Questionnaire -Housewife =114 (62.3%) -Government employed =29 (12.6%) -Privately employed =23(10%) -Merchant =10 (4.3%) -Daily laborer =13 (5.6%) -Pensioner =8 (3.5%) -Other 4 (1.7%) Family income per month <600 ETB =35 (15.2%) 601 - 1 650 =56 (24.2%) 1651 -3 200 =66 (28.6%) 3 201 - 5 250 =49 (21.2%) 5 251 -7 800=19 (8.2%) >7 801 =6 (2.6%) -Married 96 (41.6%) -Single 11 (4.8%) -Divorced 36 (15.6%)		The odds of diagnostic delays: - contacted primary-level health facilities (health centers and private clinics as compared to contacted secondary- or tertiary-level health facilities (AOR, 2.6; 95% CI, 1.33 to 5.27); - patients who visited, >= different health facilities for their cancer diagnosis as compared to those who visited, < 4 different health facilities (AOR, 2.7; 95% CI, 1.07 to 6.71). - patients who made 5 visits to health facilities before receipt of histologic diagnostic confirmation compared to those patients who made 5 visits (AOR, 2.2; 95% CI, 1.05 to 4.43). -The odds of delay in health seeking: - never heard of cervical cancer before diagnosis (adjusted OR (AOR), 2.3; 95% CI, 1.11 to 4.70) - waited until they saw additional symptoms (AOR, 2.3; 95% CI, 1.096 to 4.90) - practiced a religious ritual as a solution for their cancer (AOR, 3.3; 95% CI, 1.46 to 7.48) - Not bothered about first symptom 16 (29.6%) -Thought it would go away by itself 21 (38.9%) -Misinterpretation (not aware) of symptoms 14 (25.9%) -Ashamed to tell anyone about symptoms 10 (18.5%) -Not knowing which health facility to visit 8 (14.8%) -Thought treatment would be expensive 3 (5.5%) -Thought religious activities would cure problem 5 (9.3%)
Socio-economic and cultural vulnerabilities to cervical cancer and challenges faced by patients attending care at Tikur Anbessa Hospital: A cross sectional and qualitative study Sara Kebede Tadesse 2015	cervical	Hospital Ethiopia	15 April - 15 May 2013	Patients	198 Other: questionnaire and interview Housewife 78 (39.4%) Farmer 73 (36.9%) Government 13 (6.6%) Merchant 12 (6.1%) private for profit sector 9 (4.5%) Pensioner 8 (4.0%) Daily laborer 2 (1.0%) NGO 1 (0.5%) Unemployed 1 (0.5%) Temp worker 1 (0.5%) <500 43 (21.9%) 500 - 999.99 77 (42.8%) 1,000 - 1,499.99 29 (16.1%) 1,500 - 1,999.99 19 (10.6%) 2,000 or more 12 (6.7%) Single 1 (0.5%) Married 101 (51.0%) Widowed 69 (34.8%) Separated 19 (9.6%) Divorced 8	not stated	not stated not stated not stated not stated long waiting time misdiagnosis not clear
Patient delay and contributing factors among breast cancer patients at two cancer referral centres in Ethiopia: A cross-sectional study Aragaw Tesfaw 2020	Breast	Regional Ethiopia	September 2019 to April 30 2020	Patients	371 Questionnaire Housewife 215 (58.0%) Farmer 94 (25.3%) Government employee 52 (14.0%) Other 10 (2.7%) not stated Married 298 (80.3%) Single 73 (19.7%) Literate 136 (36.7%) Primary education 153 (41.2%) Secondary education and above 82 (22.1%) 100% female mean 40 (30-70), Mean 48.1 <40 83 (22.4%) >40 288 (77.6%)	<5 km 163 (43.9%) > 5 km 208 (56.1%)	not stated- more than 5 km travel distance (AOR=1.66; 95% CI=1.09-3.00)- rural residence (AOR=3.72; 95% CI=1.82-7.47) - illiterate women (AOR=3.8; 95% CI=1.71-8.54) - painless wound (AOR=3.32; 95% CI=1.93-5.72) - no lump/swelling in their armpit (AOR=6.16; 95% CI=2.80-13.54). - no previous breast problem (AOR=2.46; 95% CI=1.43-4.22) not stated- Lack of awareness about early symptoms 345 (92.9%) - Relating symptoms with other medical problems 132 (35.6%) - Belief that breast cancer has not any medical treatment 88 (23.7%) - Use of traditional and spiritual treatment options 286 (77.1%)

Why do breast cancer patients report late or abscond during treatment in Ghana? A pilot study. J. Clegg-Lampstej 2009	Breast	Hospital Ghana	September 2007 - July 2008	Patients	101 Questionnaire	-Single new patients 15 (19%), defaulters 2 (5.7%) -Married patients 38 (57.7%), defaulters 32 (88.6%) -Divorced/separated new patients 3 (4.2%), defaulters 2 (5.8%) -Widowed new patients 22 (18.2%) -Nil New patients 11 (16%), defaulters 5 (14.3%) - Primary new patients 15 (22.7%), defaulters 5 (14.3%) -Secondary new patients 18 (27.3%), defaulters 20 (57.1%) - Tertiary new patients 22 (33.3%) 5 (14.3%) defaulters:101 women-new patients: mean 44.8, median 43 yrs		Defaulters - Fear of mastectomy 20 (57.1%), -herbal treatment 13 (37.1%), -Financial incapability 11 (31.4%), -Prayers and Prayer camps 10 (28.6%), -Chinese medication 5 (14.3%) -observing 3 (8.6%) -Ulcer healed. Thought disease was healed 2 (5.7%), -Had complete clinical response 2 (5.7%), -food supplement 2 (5.7%), -exercising faith 2 (5.7%) -Side effects of drugs 1 (2.9%) - Pressure from in-laws to refuse mastectomy 1(2.9) - Father refused treatment 1 (2.9%), -family commitments (2.9%), -acupuncture treatment at 1 (2.9%)-previous medical consultation 26 (29.4%) -Financial incapability New patients -ignorance 19 (28.8%), -fear of mastectomy 16 (24.2%), -herbal treatment 13(19.7%), -prayers and prayer camps 13(19.7%), -financial incapability 12 (18.2%), -fear of diagnosis 7 (10.6%), -other spiritual 6(9.1%)
Factors contributing to delays in diagnosis of breast cancers in Ghana, West Africa Louise Brinton 2016	Breast cancer	Regional Ghana	-	Patients	1184 Questionnaire	1184 women<40 246 (20.8%) 40-44 158 (13.3%) 45-49 188 (15.9%) 50-54 167 (14.1%) 55-59 150 (12.7%) 60-64 113 (9.5%) 65-69 63 (5.3%) >70 = 95 (8.0%) Unknown = 4 (0.3%)		Other predictors of large tumours are seeking assistance from someone other than a doctor or nurse for breast symptoms (2.65, 1.31, A15.40). -low education having an OR of 2.11 (95% CI1.47-3.04) -divorced/separated OR 1.65 (1.15-2.37) or widowed women OR 2.16 (1.42-3.28) -Consulting a traditional healer and using traditional medication
Financial barriers related to breast cancer screening and treatment: A cross-sectional survey of women in Kenya Suha Subramanian 2019	Breast	Regional Kenya	November 2017 to April 2018	Patients	800 Questionnaire	with BC 132 without BC 258 - Never married: With BC 41 without 79 -Married/ living together: With BC 244 without 226 -Divorced/ separated: With BC 68 without 63 -Widowed: With BC 46 without 30 -Missing: With BC 41 without 2 None:With BC 10; Without 6 - Primary: With BC 136 Without 101 - Secondary/Vocational: With BC 149 Without 154 - College05: With BC 70 Without 109 -University:With BC 32 Without 26		-Cost of going to the doctor 46.3% -Inability to discuss symptoms confidently 10.0% -Difficulties setting up appointment 9.8% -Communication barriers 6.5% -Fear of wasting the doctor's time 3.3% -transportation barriers 23.3% -Transportation barriers 23.3% -Busy schedule 9.0% -Disapproval of family and friends 3.8% -Embarrassment 6.5% -Fear of what the doctor might find 19.3% -General fear of the doctors visit 19.3%
Patient factors affecting successful linkage to treatment in a cervical cancer prevention program in Kenya: A prospective cohort study Charlotte M Page 2019	cervical cancer	Regional Kenya	February - October 2018	Community	505 Other: prospective cohort	No 214(42%) Yes 291(58% not stated)Not partnered 132(27%) Partnered 366 (73%)Primaryschool or less 428 (85%) At least some secondary 77 (15%)100% femalemedian 33 (27-42)	8 km (5-12)	not stated- primary school education or less - women who did not miss work to come to CHC not statednot statednot statednot stated
Prevalence and Capacity of Cancer Diagnostics and Treatment: A Demand and Supply Survey of Health-Care Facilities in Kenya Francis W Wambalaba 2019	Cervix, Breast, Esophagus, Prostate, Ovary, Colon, Thyroid, Pancreatic, Lung, Liver	National Kenya	November 2013 - February 2014	Other: Patients and administrators	1048 Other: - patient data from records - interviews with volunteer patients -survey data from hospital medical officers	not stated not statednot statednot statedFemale 57% Male 43%Female 52 years Men 62 years	not stated	not statednot statednot stated- preventive services limited not statednot stated
Delayed presentation of breast cancer patients. E.S. Otieno 2010	Breast	Hospital Kenya	1 October 2003 to 31st March 2006	Patients	166 Questionnaire	98.8% femalemean age 47, age range 17 to 88		-Reassured that their condition was benign by the first medical personnel they visited 40 (24.1% cumulative %24.1)-Painless symptomatology 39 (23.5%, cumulative% 47.6) -Not aware of the disease 13 (7.8%, cumulative % 84.9) -Worried they would be diagnosed with cancer 33 (19.9%, cumulative % 67.5) -Attending to traditional healers and taking herbal preparations 16 (9.6% cumulative % 77.1)
Health system organisation and patient pathways: breast care patients' trajectories and medical doctors' practice in Mali Kirsten Grosse Frie 2019	Breast	Regional Mali	1 January 2016 - April 2016	Patients and clinicians	124 Questionnaire	Housewife 55 (44.4%); Public service 19 (15.3%); Business 9 (7.3%); Student 9 (7.3%); Other 32 (25.8%) not statedMarried 83 (66.9%) Single 14 (11.3%) Divorced 7 (5.6%) Widowed 20 (16.1%)not stated100% female16-24 42 (33.9%); 35-49 47 (37.9%); 50-80 35 (28.2%)	not stated	- community healthcare centres and private clinics first contact n/a-Having someone in the family with breast cancer was also associated with a delay of >6 months in acknowledging breast symptoms (p=0.028). -knowledge about breast n/a-no health insurance -traditional healer

Geospatial barriers to healthcare access for breast cancer diagnosis in sub-Saharan African settings: The African Breast Cancer AIDisparities in Outcomes Cohort Study Kayo Togawa 2020	Breast	Hospital Namibia Nigeria Uganda Zambia	September 2014 - September 2017	Patients	1518 Other: Interview	not stated not stated-not stated/primary school or less 681 (45%) Secondary/high school 509 (34%) Technical/university 328 (22%)100% womenmean 50 years +/- 13 19-97	not clear	not stated - rural residence OR=1.40, 95% CI: 1.06-1.84 - distance (OR per 50 km increment OR = 1.04, 95% CI: 1.00-1.09, P 0.048not stated-Cost of diagnostic tests/treatment -Transport -Hospital too far -Difficulty with making an appointment or reaching doctor -Other obligations/no permission from family member -Embarrassment -Pain or discomfort -Fear of dying/treatment -No trust in medicine/prefer traditional healer
Prevalence and Pattern of Late Stage Presentation in Women with Breast and Cervical Cancers in Lagos University Teaching Hospital, Nigeria. Opeyemi Awofeso 2018	Breast 85 Cervical 20	Hospital Nigeria	April to June 2016	Patients	105 Questionnaire	Not stated <N9000 57 (54.3%) N9001-N18,00 24 (22.9%) N18,001-N50,000 15 (14.3%) N50,001-N90,000 7 (6.7%) N90,001-N150,000 1 (1.0%) N90,001-N150,000 1 (1.0%) N150,000 1 (1.0%)Single 4 (3.8%) Married 86 (81.9%) Divorced/separated 3 (2.9%) Widowed 12 (11.4%)None 7 (6.7%) Primary 26 (31.4%) Secondary 33 (31.4%) Post secondary 39 (37.1%)Females: 105 (100%)All - mean age	<30 min 3 (2.9%) 30 min-1h 23 (21.9%) 1-2 h 26 (24.8%) >2 h 53 (50.5%)	-Systemic delay χ^2 8.1 p=0.0174-Patient delay χ^2 8.5p=0.0363 -Misdiagnosis at lower levels of health care χ^2 7.11 p=0.0077 -Delayed investigation time χ^2 14.88 p=0.0001 -Ignorance and lack of personal initiative χ^2 5.07 p= 0.0243 -unavailability of appropriate treatment modality-investigation time at first contact -misdiagnosis at lower levels-ignorance and lack of personal initiative -preference for alternative medicine fear -myths and misconceptions
Effect of Sociodemographic Variables on Patient and Diagnostic Delay of Breast Cancer at the Foremost Health Care Institution in Nigeria. Sunday O Oluwajuwaju 2019	breast	Hospital Nigeria	August - October 2018	Patients	275 Questionnaire	Unemployed 124 (45.1%) Employed 151 (54.9%) <18,000 99 (36%) >18,000 475 (64%)Single 12 (4.4%) Married 193 (70.2%) Divorced/separated 19 (6.9%) Widowed 51 (18.5%)Primary 46 (16.7%) Secondary 87 (31.6%) Tertiary 142 (51.6%)100% femalemean 49 +/- 11.9	not stated	not stated marital status p=0.00-Age p=0.023 -ethnicity p=0.024 -marital status p=0.009High cost of medicine 71 (73.2%)Obligations at home 77 (91.7%) High cost of prediagnostic test 69 (82.1%) Earlier alternative treatment 66 (78.6%) High cost of transportation 13 (15.5%)Obligations at home 75 (77.3%) High cost of transportation 74 (76.3%) Stigma of disease 71 (73.2%) Denial or anxiety 71 (73.2%) Fear of seeking medical advice 69 (71.1%) Earlier alternative treatment 52 (53.6%) Non-awareness of the disease 38 (39.2%) Fear of diagnosis 67 (79.8%)
Acceptance and adherence to treatment among breast cancer patients in Eastern Nigeria. Stanley N.C. Anyanwu 2011	breast	Hospital Nigeria	2004 to 2008	Patients	275 Case note	primary 215 (80%) high school/tertiary 168 (60%) females 273 male 2<30yrs 19 (6.9%) 30-39 yrs 74 (26.9%) 40-49 yrs 77 (28.0%) 50-59 yrs 50 (18.2%) 60-69 yrs 39 (14.2%) >70 yrs 16 (5.8%)		- Declined any form of treatment 65 (37.6%) -Accepted single treatment modality 57 (32.9%) -Cost of drugs, laboratory expenses and transportation to the hospital. - No bed space -No relatives to care for them during treatment -distance Distance
Presentation intervals and the impact of delay on breast cancer progression in a black African population Olayide Agodirin 2020	Breast	Regional Nigeria	June 2017-May 2018	Patients	420 Questionnaire	Not stated Not stated married 285 (68%) widow 48 (11.5%) single 23 (5.5%) separat/divorced 7 (1.7389%) unspecified 57 (13.3%)tertiary 144 (34.3%) secondary 124 (29.5%) primary 66 (15.7%) none 79 (18.8%) unspecified 7 (1.7%) 420 females (100%)21:30 = 16 (3.8%) 31-40 =92 (22) 41-50 =119 (28.2%) 51-60 =92 22%)	Not stated	-The PCI (median 106, 13-327) was significantly longer than the HSI (median 42, 7-150). Wilcoxon-Signed Rank test p= 0.0001.(paired t-test mean difference 140 -s442 days (95% CI 95-186). -Most respondents disclosed early within 30 days (330 (81, 95% CI 77-85) and consulted FHP within 60 days (230 (60, 95% CI 53-63). -Most respondents had long PCI of > 30 days. 1-7 days in 91(25% (95% CI 20-29), 1-30 days in 134 (36 95% CI31-41) and > 30 days in 237 out of 377(64 95% CI 59-68). -The SCI was > 90 days in 293 of 401 (73% (95% CI68-77), 91-180 days in 70 of 401 (17% (95% CI 14-22)and > 180 days in 226 of 401 (56% (95% CI 51-61) -More respondents with big (> 5 cm) tumors received correct advice compared to those with small tumors(Risk difference 5.5% (95% CI 4.0-15). no associations given- misdiagnosis - strike 4.0 (2.4%) - Navigation in primary care 1.0 (0.6%) -Misdiagnosis/ investigations 46 (27.5%) - financial constraint 33 (19.7%) - family issues 2.0 (1.2%) - reassured by first home person or first health care provider 7.0 (4.2%) - distance 3.0 (1.7%) - financial constraint 18 (10.5%) -ignorance 6 (3.5%) - pregnancy/ lactation/ menopause 8 (4.6%) - thought benign/thought will disappear 50 (29%) - small size 2 (1.2%) - lump only 2 (1.2%)
Infrastructural challenges lead to delay of curative radiotherapy in Nigeria Jim Leng 2020	- breast (37.5%), - cervical (16.3%), - head and neck (11.9%) - prostate (10.9%)	Hospital Nigeria	June 2017 to August 2017	Patients	186 Questionnaire	None 37 (19.9%) Trader 68 (36.6%) Farmer 9 (4.8%) Artisan 23 (12.4%) Professional 38 (20.4%) Other 11 (5.9%) The median monthly income 15,000 naira (5,000 - 40,000)which converts to approximately 50 dollars per month. Married 162 (87.1%), Widowed 12 (6.5%) Divorced (0.5%) Separated 1 (0.5%) Never married 10 (5.4%)None 20 (10.9%) Primary 46 (25.0%) Secondary 52 (28.3%) Vocational/technical 18 (9.8%) Diploma/OND/		-Inability to pay time to clinic visit OR=1.99 (1.05 to 3.77) P= .034* Time to radiotherapy treatment OR= 1.85 (0.95 to 3.57) Time to radiotherapy treatment p=.069 -Infrastructural factors include: -Machine breakdown time to clinic visit OR=1.39 (0.78 to 2.48) P= .264 Time to radiotherapy treatment OR=2.92 (1.54 to 5.53) P=.001* -Worker strike time to visit clinic OR= 0.65 (0.38 to 1.13) P= .127 Time to radio therapy treatment OR=2.64 (1.46 to 4.79)P= .001 -Power outage time to visit clinic OR=1.88 (0.8 to 4.42) P=.147 Time to radiotherapy treatment OR=2.81 (1.16 to 6.79) P= .022* -Sociocultural factors include: -Lack of knowledge of appropriate medical facility, time to clinic visit OR 4.96 (2.41 to 10.21),P<.001* time to radiotherapy treatment OR=1.92 (0.89 to 4.15) P= .099 -Not wanting others to know of sickness time to clinic visit OR 3.63 (1.35 to 9.72) P=.011* Time to radiotherapy treatment OR=1.75 (0.67 to 4.58) P=.253 -Tried another treatment first, time to clinic visit OR 2.45 (1.26 to 4.76) P=.008* Time to radiotherapy treatment OR= 1.50 (0.75 to 2.97) P=.248 -Fear of treatment , time to clinic visit OR 0.90 (0.5 to 1.63) P= .732 time to radiotherapy treatment OR 0.42 (0.22 to 0.81) P= .009* -Concern over cost of travel for treatment Time to clinic visit OR= 1.19 (0.7 to 2.04) P= .523 time to radiotherapy treatment OR= (0.3 to 0.95) P=.033* -Previous bad experience at hospital ,time to clinic visit OR=7.05 (2.15 to 23.12) P= .001* time to radiotherapy treatment OR= 2.19 (0.67 to 7.09) P=.192 -treatment might be too expensive - Infrastructural barriers increased the odds of radiotherapy delay - Health care worker strikes - Machine breakdowns - power outages -power out of socket for their treatment equipment

Geospatial access predicts cancer stage at presentation and outcomes for patients with breast cancer in southwest Nigeria: A population-based study Gregory C Knapp 2020	Breast	Hospital Nigeria	May 2009 - January 2019	Patients	609 Retrospective cohort	not stated Socioeconomic status Low 417 (68.5%) Middle 185 (30.4%) High 7 (1.2%) not stated None 56 (9.3%) Primary 196 (32.4%) Secondary 141 (23.3%) Tertiary 212 (35.0%) Female 598 (98.2%) Male 11 (1.8%) median 49 (40-58)	not stated	not stated - primary education only (21.9%; P= .002) - longer travel times 2.8-fold increased (95% CI, 1.30-6.11; P= .006) not stated not stated not stated not stated
Complementary and alternative medicine. Use and challenges among gynaecological cancer patients in Nigeria: Experiences in a tertiary health institution - Preliminary results T.O. Nwankwo 2019	Cervical 42, ovarian 31, endometrial 8, vulva 5, choriocarcinoma 4, leiomyosarcoma 4	Hospital Nigeria	June 2014 to June 2020	Patients	95 Questionnaire	Trader 37 (38.9%) Artisan/farmer 23 (24.2%) Professional/Civil servant 18 (19.0%) Unemployed 17 (17.9%) Income < monthly expenses 59 (62.0%) Income => monthly expenses 36 (38.0%) Single 13 (13.7%) Married 77 (81.1%) Divorced/separated 5 (5.3%) Primary/non formal 44 (46.3%) Secondary 28 (29.5%) Tertiary 23 (24.2%) 21-30 2 (2.1%) 31-40 17 (17.9%) 41-50 27 (28.4%) >50 49 (51.6%)		- recommendation from friends and relatives (pvalue = 0.017) - income was less than monthly expenditure - duration of illness was equal or greater than six months pvalue = 0.02, OR = 0.36 CI 0.15-0.86- Complementary and alternative medicine use - Herbs - spiritual sacrifice - diet modification - Chinese medicine - prayers combined with other methods
Effect of sociodemographic variables on patient and diagnostic delay of breast cancer at the foremost health care institution in Nigeria Sunday Oluwajuwaju 2019	Breast	Hospital Nigeria	August - October 2018	Patients	275 Questionnaire	Unemployed 124 (45.1%) Employed 151 (54.9%) <18,000 99 (36%) >18,000 176 (64%) Single 12 (4.4%) Married 193 (70.2%) Divorced/separated 19 (6.9%) Widowed 51 (18.5%) Primary 46 (16.7%) Secondary 87 (31.6%) Tertiary 142 (51.6%) 100% women Mean 49 +/- 11.9	not stated	not stated - marital status, p=00 (single at higher risk of late stage diagnosis)- Age p=0.023 - ethnicity p=0.024 - marital status p=0.009 High cost of prediagnostic test Obligations at home High cost of transportation n = 97 - Obligations at home - High cost of transportation - Stigma of disease - Denial or anxiety - High cost of medicine - Fear of seeking medical advice - Earlier alternative treatment - Nonawareness of the disease
Impact of Primary Care Delay on Progression of Breast Cancer in a Black African Population: A Multicentered Survey Olayide Agodirin 2019	Breast cancer	Regional Nigeria	May 2017 - July 2018	Patients	237 Questionnaire	married 167 (70.5%) single 11 (4.6%) divorced or separated 4 (1.7%) widow 22 (9.3%) unspecified 33 (13.9%) tertiary 91 (38.3%) secondary 78 (33%) primary 30 (12.7%) none 38 (16%) <= 30 18 (7.6%) 31-40 51 (21%) 41-50 74 (31.2%) 51-60 46 (19.4%) 61-70 24 (10.1%) >= 71 24 (10.1%)		- Misdiagnosis - Misinformation by FHP - Distance to specialist clinic - Fear of treatment most probably mastectomy - Age - Distance to specialist clinic - Need for social acceptability
Health-seeking behavior and barriers to care in patients with rectal bleeding in Nigeria Oluwasegun I. Alatise 2017	colorectal cancer	Hospital Nigeria	2013 to 2014	Other: patients, physicians	127 Questionnaire	<5100 =49 (59.8%) >5101= 33 (40.2%) Married 69= (84.2%) Single 12= (14.6%) Widow 1= (1.2%) - No formal or primary education 23 (28.1%) - Secondary education 27 (32.9%) - Tertiary education 32 (39.0%) Male = 64 (78.1%) Female = 18 (22.0%) <45 =41 (50.6%) >46 =40 (49.4%)		- Hospital bottlenecks - misdiagnosis - Unknown availability or cost of colonoscopy - Not serious - symptom cleared - Embarrassing - Knew the cause - Fear of unknown - No money - Religious beliefs - belief in herbal medicine
Determinants of stage at diagnosis of breast cancer in Nigerian women: sociodemographic, breast cancer awareness, health care access and clinical factors Elima Jedy-Agba 2017	Breast	National Nigeria	January 2014 - July 2016	Patients	316 Other: Case-control	not stated Personal income yes early 23 (25.6%) late 67 (74.4%) Personal income no early 74 (35.2%) 136 (64.8%) Married: early 71 (33.6%) late 140 (66.4%) None: early 5 (12.2%) late 36 (87.8%) Primary/Secondary: early 33 (29.2%) late 80 (70.8%) Tertiary/Post graduate (PG): early 59 (41.3%) late 84 (58.7%) Not reported early 0 (0) late 3 (100%) 100% women mean age 45.4 (SD 11.4)	< 1 hour: early 66 (36.1%) late 117 (63.9%) 1 - < 2 hours: early 15 (33.3%) late 30 (66.7%) >= 2 hours: early 5 (22.7%) late 17 (77.3%) Not reported: early 11 (22.0%) late 39 (78.0%)	- lower educational level (p=0.002); - no formal education 2.75 (95% CI 1.37, 5.52, p=0.004) - In age-adjusted analysis, the odds of later stage were positively associated with the amount of travel time taken by the woman to reach the first healthcare provider she visited (p<0.04) - never having heard of BC OR=2.24; 95% CI 1.25, 4.03; p=0.01 - Women who did not believe in a BC cure (OR=2.23; 95% CI 1.40, 3.56; p=0.001) - did not practice BSE (OR=1.89; 95% CI 1.20, 2.99; p=0.01) not stated not stated not stated

Delay in presentation of cancer patients for diagnosis and management: An institutional report A Oladeji 2017	Uterine cervix, breast, head and neck, prostate, GIT, others	Hospital Nigeria	June 2014 to May 2015	Patients	218 Questionnaire	21 to 83	<ul style="list-style-type: none"> -Fear of treatment side effects -Financial constraints - inadequate facilities -Challenges of distance to treatment center -Lack of family support -Lack of awareness of cancer symptoms -Using food supplements -Treatment received by cancer patients at point of first presentation include spiritual care (prayers), herbal medicine -Seeking alternative therapy -Fear of diagnosis of cancer
Factors contributing to poor management outcome of sinonasal malignancies in South-west Nigeria. A.J.Fasunla 2013	Sinonasal Malignancies	Hospital Nigeria	March 2006 - February 2011	Patients	61 Questionnaire	<p>none stated Low socioeconomic class 80.3%</p> <p>High socioeconomic class 4.9%Married 39 (63.9%)</p> <p>Not married 22 (36.1%)No post secondary education 40 (65.6%)</p> <p>With post secondary education 21 (34.4%)females 33 (54.1%)</p> <p>males 28 (45.9%)mean age 37 years +/- 19.4 (range 4 years - 72 years)</p>	<p>Not stated</p> <ul style="list-style-type: none"> -noneNoneNone-high cost of medical treatment - patients, wrong advice - attitude of hospital staff - lack of confidence in orthodox therapy - proximity to health facility -traditional and religious belief
Delays in presentation and treatment of breast cancer in Enugu, Nigeria ER Ezeome 2009	Breast	Hospital Nigeria	June 1999 to May 2005	Patients	164 Questionnaire	<p>Married 116 (71.2%)</p> <p>Not married 19 (11.7%)</p> <p>Widowed 24 (14.7%)</p> <p>Divorced/separated 4 (2.5%)Non 24 (15.2%)</p> <p>Primary 38 (24.2%)</p> <p>Secondary 45 (28.7%)</p> <p>Tertiary 47 (29.9%)</p> <p>Higher Degree 3 (1.8%)162 female</p> <p>2 maleage range 21 - 77 yrs mean age of 45.7 yrs, median age of 45</p>	<ul style="list-style-type: none"> -wrong advice and false reassurances from the initial doctor or health professional -delays in getting biopsy or histology reports -physician's failure to get biopsy or histology at the initial evaluation -inertial actions in the hospitals - did not consider the symptoms serious or thought it will disappear -did not know the implication of the abnormality -lacked finance to go for treatment - alternative practitioners and prayer houses - did not experience pain and therefore did not present earlier
Delayed treatment of symptomatic breast cancer: The experience from Kaduna, Nigeria A. Y. Ukwanya 2008	Breast	Hospital Nigeria	1st July 2003 to 30 June 2005	Patients	111 Questionnaire	<p>Currently married 97</p> <p>Currently unmarried 14</p> <p>literate/primary 59</p> <p>Secondary/tertiary 52</p> <p>Median age among those admitted for treatment within a month 50 after a month 43</p>	<p>Provider delay</p> <ul style="list-style-type: none"> -Failure to refer patient at first consultation 40 (40.4%) Attempted treatment by lumpectomy with recurrence 15(15.1%) -Lump not sent for histopathological examination 14(14.1%) -Patient not counselled about seriousness of breast lump 13(13.1%) -Breast lump mistakenly incised as an abscess 10 (10.1%) -Breast lump not felt at initial examination 7 (7%) -Biopsy result not immediately communicated to patient 4 (4%) -Initial biopsy diagnosis of benign disease 3(3%) <p>Patient reasons for delay are</p> <ul style="list-style-type: none"> -Family refused hospital treatment 25 (25.3%) -Did not want mastectomy as treatment 21 (21.2%) - Could not initially afford hospital treatment 13(13.1%) - Patient not aware of seriousness of a lump in the breast 47(47.5%) - Went for alternative (traditional/spiritual) treatment 38(38.4%)
Cancer Control at the District Hospital Level in Sub-Saharan Africa: An Educational and Resource Needs Assessment of General Practitioners. Allison N. Martin 2019	cancer type not specified (provider study)	National Rwanda	early 2017	Clinicians	73 Questionnaire	<p>doctors not statednot statedfirst year general practitioners (doctors)Female 15 (21.1%)</p> <p>Male 56 (78.9%)20-24 2 (2.7%)</p> <p>25-29 64 (87.7%)</p> <p>30-34 5 (6.9%)</p> <p>>35 2 (2.7%)</p>	<p>n/a</p> <ul style="list-style-type: none"> -n/an/an/a-referrals with lack of specific appointments to specialists - lack of pathology or screening services 47 (49%) - inability to afford clinic visits 48 (66%) - lack of awareness of symptoms 65 (89%)
Barriers to timely surgery for breast cancer in Rwanda Lauren E. Schleimer 2019	Breast	Regional Rwanda	1st January 2014 to 31 December 2015	Patients	151 Case note	<p>Female 144</p> <p>Male 7Median age 54 (27-84)</p>	<ul style="list-style-type: none"> -Surgeon/operating room availability -Management of pregnancy -Inoperable, referred for second opinion -Chemotherapy toxicity -Patient refused breast surgery 4 -Patient refused referral for off-site operative treatment <p>-Financial/social issues</p> <ul style="list-style-type: none"> -Financial/social issues -Seeking traditional medicine -Seeking care abroad
Delays in breast cancer presentation and diagnosis at two rural cancer referral centers in Rwanda Lydia E. Pace 2015	Breast	National Rwanda	November 2012 - February 2014	Patients	144 Questionnaire	<p>not stated not statedSingle, widowed or divorced 73 (51%)</p> <p>Married 71 (49%)None or primary school 108 (75%)</p> <p>Secondary school or university 36 (25%)100% femalemedian age 49 years</p> <p><40 32 (22%)</p> <p>40,41-49 43 (30%)</p> <p>50,51-59 43 (30%)</p> <p>>60 26 (18%)</p>	<p><2 hr 117 (81%)</p> <p>>=2 hr 57 (19%)</p> <p>CHW who visits regularly 51 (35%)</p> <ul style="list-style-type: none"> -not stated - patients who visited other healthcare facilities >=5 times before diagnosis were more likely to experience system delays of >6 months (OR, 2.69; 95% CI, 1.24-5.84;p<0.01). -Patients residing in Butaro or Rwinkwavudistrict were less likely to experience long system delays (OR, 0.05; 95% CI, 0.004-0.55; p=0.02)delay of >=6 months: -low education (odds ratio [OR], 4.88; 95% CI 1.72-13.88; p=0.003; -seeing a traditional healer before a nurse or doctor (OR, 4.26; 95% CI, 1.56-11.60; p=0.005);none- visited another health center or hospital first and was not referred to this hospital immediately - needed a transfer form from another facility before coming here - too expensive to travel from home to -was told by healthcare worker there was no treatment for thidisease - The hospital was too far to travel to - not bothered by the problem at first - did not know I needed to see a doctor and thought it would go away - visited a traditional healer first - thought treatment might be too expensive - too busy at home or at my job - afraid it might be cancer - afraid of treatments, including potentially losing breast - afraid of possibly dying if breast removed - too expensive to travel to the health center or hospital - did not know where an appropriate medical facility was - did not want anyone knowing had a breast problem - afraid of being examined by a doctor or other healthcare provider - had or knew someone who had a bad experience at a health center or hospital - The health center or hospital was too far - did not know that this cancer center existed

Prevalence of breast masses and barriers to care: Results from a population-based survey in Rwanda and Sierra Leone Faustin Ntirenganya 2014	**Breast masses not specified if cancer or not	National Rwanda Sierra Leone	October 2011 - January 2012	Community	Sierra Leone 3645 Rwanda 3175 Questionnaire	*women with breast masses Sierra Leone, n=57: None 10 Home maker 7 Domestic help 2 Farmer 26 Self employed/small business 12 Rwanda, n=79: None 9 Home maker 0 Domestic help 0 Farmer 70 Self employed/small business 0 not stated not stated *women with breast masses Sierra Leone, n=57: None 38 (66.7%) Primary 3 (5.3%) Secondary 14 (24.6%) Tertiary 2 (3.5%) Rwanda, n=79: None 33(41.8%) Primary 44 (55.7%) Secondary 2	not stated	n/an/an/ not stated-lack of money (Sierra Leone 35.1% Rwanda 11.4%)- absence of disability associated with breast mass -lack of trust in the health care system -long distance required to reach the provider -stigma associated with having a breast problem -consulted traditional healers instead of going to health centers
Consensus study on the health system and patient-related barriers for lung cancer management in South Africa Witness Mapanga 2021	Lung	Regional South Africa		clinical managers clinicians public health opinion leaders NGO	27 Delphi process, nominal group technique	oncologists pulmonologists thoracic surgeons pathologists radiologists oncology nurses medical officers NGO representatives		- Poor nutrition -Lack of smoking cessation clinics -Costs of medical treatments -Repeated visits for misdiagnoses for TB-patients lose faith in the health system and go to GPs -Failure to come back for follow up diagnostic or treatment appointments -Patients changing their mobile numbers and then cannot be contacted or may not answer their phones from unidentified callers-fearing debt collection. -Patients endure bureaucracy at health care facilities ID, proof of residence, articulation of chief complaint -Language barriers between patients and healthcare practitioners and thus difficult communications and understanding of doctor information -Long delays to get appointments ,long waiting periods in clinics and long queues for high patient volumes and for diagnostic tests compounded by early closing times -Primary health care is nurse driven and doctor supported-lung cancer not prioritized as a diagnosis-and not listed in the index of disease conditions - Misdiagnosis linked with superficial examinations-over emphasis on more common HIV and TB pneumonia with a low index of suspicion for lung cancer -Delays in getting diagnostic workup test results for imaging, cytology, pathology and surgery -Unwillingness for health care workers to consider a cancer diagnosis because of the inability to break bad news and/or accompany the patient through the journey of care -Administration hassles-no referral forms, lack of hospital transport for referrals, obtaining informed consent, booking appointment for referrals -Patient health awareness messaging within primary resources is not structured and sustained with no CHC outreach to the community -Insufficient information on the prevalence of lung cancer and how best to manage it -Using sputum only to diagnose cancer -Biological specimens eg pleural fluid not sent for analysis
Delay to diagnosis and breast cancer stage in an urban south african breast clinic S Rayne 2019	Breast	Hospital South Africa	January 2016 - February 2017	Patients	252 Questionnaire	Unemployed, piece student or retired -early stage 55 (34.8%) -locally advanced 103 (65.2%) Employed, job - early presentation 17 (27.0%) - advanced locally 46 (73.0%) Only primary school -early presentation 21 (30.4%) -locally advanced 48 (69.6%) Secondary school or above - early presentation 52 (84.9%) - locally advanced 97 (65.1%) <45 yrs)	Travel to breast clinic: <30 minutes -early stage 12 (30.8%) -locally advanced 27 (69.2%) 30 minutes - 1 hour -early stage 26 (35.1%) -locally advanced 73 (69.5%) 1 - 4 hours -early stage 26 (35.1%) locally advanced 48 (64.9%)	lack of internet access 51 (35.9%in early stage and 91(64.1%) in late stage) was associated with delay in acknowledging breast symptoms (p=0.051). -work -transport -money - low education (up to Grade 7) - longer travel time to hospital
From symptom discovery to treatment - women's pathways to breast cancer care: A cross-sectional study Jennifer Moodley 2018	Breast	Hospital South Africa	May 2015 to June 2016	Patients	201 Questionnaire	Employed 51 (25.4%) Married 84 (41.8%) Single in stable relationship 6 (3.0%) Single 42 (20.9%) Widowed 38 (18.9%) Divorced/separated 31 (15.4)None-Grade 7 49 (24.4%) Grade 8-Grade 11 96 (47.8%) Grade 12 56 (27.9%)Female =201median age 54		- surgery as first treatment-visiting multiple clinics-first symptom as being minor or not serious, -being in denial. -only seeking care when a lump increased
Access to colorectal cancer (CRC) chemotherapy and the associated costs in a South African public healthcare patient cohort Candice-lee	Colorectal	Hospital South Africa	2012 - 2014	Patients	162 Case note	not stated not statednot statednot statedFemale 73 Male 89median 58 years	not stated	not statednot statednot statednot statednot statednot stated
Barriers to early presentation of breast cancer among women in Soweto, South Africa Maureen Joffe 2018	Breast	Hospital South Africa	8th January 2015 to 31st December 2016	Patients	499 Questionnaire	Unemployed 229 (45.9%) Employed 136 (27.2%) Retired 134 (26.9%) Single 119 (24.0%) Married/co-habiting 216 (43.6%) Divorced/widowed 161 (32.4%)Completion of informal/primary 142 (28.5%) Completion of high school/any tertiary school 348 (71.5%)Female 499<40 yrs 69 (13.8%) 40 -49 yrs 124 (24.8%) 50-59 yrs 120 (24.1%) 60-69 yrs 102 (20.4%) 70 and above 84 (16.8%)		- increase in parity OR1.10,95%CI:0.99-1.21 -Patients aged<40years OR=1.93,95%CI:1.05-3.58 -luminal B OR = 1.86, 95% CI:1.10-3.14 and -triple negative breast cancer subtypes OR=2.61,95%CI:1.69-4.50 -Clinical waiting time as a barrier n=23 (9.5%) were in early stage while 19 (7.4%) were in late stage. p-value 0.411, chi square 0.675 -Most participants 323(64.7%,166 in early stage and 157) referred themselves to CHBAH or were referred directly by a primary care clinic or a private general practitioner, by passing the secondary hospitals. Among those patients,251(77.7%, 143 early stage, 108 late stage) had only one visit prior to diagnosis. Those with more visits before reaching CHBAH were more likely to be diagnosed at a late stage(α=0.001). -49(15.2%, 18 in early stage, 31 in late stage) had 2 visits self referral /primary health facility ->3 visits self referral /primary health facility 23 (7.1%, 5 in early stage and 18 in late stage) - -Fear of diagnosis -Thought it was a minor ailment - No one to look after the children -Worried no money for treatment

Factors relating to late presentation of patients with breast cancer in area 2 KwaZulu-Natal, South Africa Sharon R Cacala 2017	Breast	Hospital South Africa	2014	Patients	172 Other: Prospective	- employed 27% -never attended school 19% - completed high school 19% -Average education level: 6th grade women 172mean age was 56 yrs (range 23 to 100 yrs)	<5 km from hospital, n=183 5 - 9.9 km from hospital, n=299 10 - 19.9 km from hospital, n=242 20 - 29.9 km from hospital, n=188 30 - 39.9 km from hospital, n=61	- financial issues - transportation issues - difficulty with the referral system and rural clinics - unaware that the lump could be cancer - did not understand severity - fear - afraid of losing a breast - seeing a traditional healer - financial issues - transportation issues
Stage at breast cancer diagnosis and distance from diagnostic hospital in a periurban setting: A South African public hospital case series of over 1,000 women Caroline Dickens 2014	Breast	Hospital South Africa	2006 - 2012	Patients	1071 Retrospective cohort	not stated <5 km from hospital, n=183: <= R9600 - 29.4% <= R800 - 50.3% 5 - 9.9 km from hospital, n=299: <= R9600 - 27.4% <= R800 - 51.2% 10 - 19.9 km from hospital, n=242: <= R9600 - 24.7% <= R800 - 49.3% 20 - 29.9 km from hospital, n=188: <= R9600 - 32.9% <= R800 - 61.0% 30 - 39.9 km from hospital, n=61: <= R9600 - 27% <= R800 - 58% not stated 152 women with primary education or less <5 km from hospital n=183: 14.6%	<5 km from hospital, n=183 5 - 9.9 km from hospital, n=299 10 - 19.9 km from hospital, n=242 20 - 29.9 km from hospital, n=188 30 - 39.9 km from hospital, n=61	Not stated - older patients (RR 1.03[95% CI: 0.99, 1.07] - before 2008 (RR 1.34 [95% CI: 1.17, 1.53]) - living 30-39km from hospital (95% CI: 11, 75) Not stated Not stated Not stated Not stated
Predictors of cervical cancer being at an advanced stage at diagnosis in Sudan Ahmed Ibrahim 2011	cervical cancer	Hospital Sudan	1 January 2007 to December 2007	Patients	197 Retrospective cohort	not stated Single 60 (30.5%) Married 137 (69.5%) Basic school 122 (61.9%) Secondary school 75 (38.1%) 100% female 54 73 (37.1%) >=55 124 (62.9%)	not stated	not stated - older (>= 55 years) (OR: 1.03, 95% CI: 1.01-1.05). - Rural residence (OR: 1.13, 95% CI: 1.78-5.50). - African ethnicity (OR: 1.76, 95% CI: 1.01-3.05). - without health insurance (OR: 7.7, 95% CI: 3.76-15.38) not stated not stated not stated not stated
Educational Opportunities for Low-Staging Breast Cancer in Down-Income Countries: an Example from Tanzania Kristen Yang 2019	Breast	Hospital Tanzania	January 2016 - August 2018	Patients	196 Questionnaire	not stated not stated not stated not stated not stated mean age early: 51.5 +/- 10.3 late: 51.6 +/- 12.9	not stated	not stated - never had a routine breast exam conducted prior to their diagnosis (OR = 4.40; 95% CI = 2.09-9.25) not stated not stated - financial restraints - time restraints not stated
Patient and disease characteristics associated with late tumour stage at presentation of cervical cancer in northwestern Tanzania Ramadhani Mlangi 2016	Cervical	Hospital Tanzania	November 2013 - April 2014	Patients	202 Questionnaire	Peasant 170 (84.1%) Petty trader 20 (9.9%) Business 2 (0.9%) Employed 5 (2.4%) Un-employed 5 (2.4%) not stated Married 110 (54.4%) Single 9 (4.4%) Divorced 10 (4.9%) Separated 39 (19.3%) Windowed 34 (16.8%) Formal 87 (43.1%) None formal (115 (56.9%)) 100% female mean 50.5 +/- 13.3 years (25-80 years) <40 45 (22.2%) 40-59 101 (50.0%) >=60 56 (27.7%)	not stated	not stated -Lack of formal education, OR=2.1, 95% CI 1.2 - 3.8, p=0.012 -Lack of health insurance, OR=3.9, 95% CI 1.1-13.3, p=0.033 -three or more pre-referral visits OR=1.9, 95% CI 1.1-3.5, p=0.034 - attending to traditional health practitioners OR = 2.3 [95% CI 1.2-4.2], p= 0.011 -lack of personal initiative to attend health care facility OR = 2.0 [95% CI 1.0-3.8], p= 0.028) not stated Seeking alternative health practitioner Lack of personal initiative
Engagement in HIV Care and Access to Cancer Treatment Among Patients With HIV-Associated Malignancies in Uganda. Daniel H. Low 2019	HIV associated malignancies: KS (46%) cervical cancer (19%) breast cancer (10%) esophageal cancer (6%) head and neck cancer (5%) non-Hodgkin lymphoma (4%) vulvovaginal cancer (4%) others (6%)	Hospital Uganda	October 2015 - January 2016	Patients	100 Questionnaire	Employed 34, n=100 not stated not stated 100 32 Incomplete primary school 36 Complete primary school 18 Some secondary school 30 Complete secondary school 16 Female 52% Male 48% median 41 years	?n=104 < 25 km 24 25-49 km 23 50-99 km 12 >100 km 55	-diagnostic delay (44v117 days for those not receiving HIV care; P=.048) - travel to multiple clinics/hospitals (n = 18; 46%), -conflicts between appointments for HIV and cancer care (n = 9; 23%) -treatment costs (n = 8; 21%) -difficulty adhering to the quantity of medications (n = 6; 15%) -stigma - Reporting any barrier to care at follow-up was associated with having prematurely withdrawn from cancer care (36%v0%; 95%CI, 21% to 51%; relative risk not calculable; P=.003 -Distance from place of residence to the UCI was not associated with reporting of a barrier to care; however, those who prematurely withdrew from care AF1 lived farther from the UCI than those who completed all prescribed cancer treatment (median distance, 172.5v40 km; P=.056)-Shorter time from recognizing symptoms to initiation of cancer care was associated with having previously established HIV care (P=.04). -Having previously established HIV care reduced appraisal/behavioral delay (30v75 days for those not al-ready receiving HIV care; P=.02) -Persons who were receiving ART before recognizing the symptoms determined to be associated with cancer had a total cascade duration of 207 days (OR, 109 to 320 days), compared with those not receiving AF3ART (318 days; IQR, 155 to 537 days; P=.004). diagnostic delay not stated not stated
Social, demographic and healthcare factors associated with stage at diagnosis of cervical cancer: cross-sectional study in a tertiary hospital in Northern Uganda. Amos Deogratius Mwaka 2015	Cervical	Hospital Uganda	September 2012 to April 2014	Patients	149 Questionnaire	Housewife/peasant 132 (88.6%) Petty trader 10 (6.7%) Formally employed 4 (2.7%) Missing 3 (2.0%) not stated Married 84 (56.4%) Divorced 21 (14.1%) Widowed 44 (29.5%) No formal education 67 (45.0%) Primary education 72 (48.3%) Secondary education 7 (4.7%) Tertiary education 2 (1.3%) Missing 1 (0.7%) 100% female mean age 48 +/- 13 years	<40 km 41 (27.5%) 40-80 km 35 (23.5%) 81-100 km 13 (8.7%) 101-375 km 58 (38.9%)	-the odds of advanced stage cancer among patients who self-reported financial difficulty are 5.7 times (95% CI 1.58 to 20.64) the odds of advanced cancer among the patients who did not report financial difficulty as a reason for non-prompt health seeking-the OR of advanced stage cervical cancer among patients who perceived their symptoms as due to a serious illness or cancer was 0.43 times (95% CI 0.20 to 0.96) the OR of those who perceived their symptoms as not due to a serious illness/cancer -In bivariate analyses, participants with secondary and tertiary education were less likely to be diagnosed with advanced stage cancer compared to those who had not attained formal education (crude OR=0.16 (95% CI 0.03 to 0.87). - patients who reported lack of money as reason for non-prompt health seeking were more likely to be diagnosed at advanced stage cancer. -pre-referral diagnoses by primary healthcare professional non-cancer related or not told: 61-lack of money: 108-symptoms not attributed to cancer: 130 -using other treatments: 60 -perceived illness as not serious or cancer: 58

Challenges faced by cancer patients in Uganda: Implications for health systems strengthening in resource limited settings Annet Nakaganda 2020	Cervix 72 (20%) Kaposi's sarcoma 71 (20%) Breast 46 (13%) Prostate 19 (5%) Esophagus 16 (4%)	Hospital Uganda	April to May 2017	Patients	359 Questionnaire	Self Employed 87 (24%) Unemployed 82 (23%) Stopped working due to cancer 70 (20%) Casual employment 61 (17%) Formal employment 39 (11%) Other 20 (6%) - Married 143 (43%) Single 77 (21%) Living together 61 (17%) Separated/divorced 47 (13%) Widow/Widower 31 (9%) Primary level 147 (41%) Secondary level 97 (27%) College/University education level 71 (20%) Female 199 (55%) average age 43		-lack of money for treatment, medicines and transportation. -family responsibilities -not healthy enough to continue treatment -failure to find accommodation in Kampala -lack of money for transportation. -family responsibilities -lack of money for transportation. -family responsibilities
Surgical candidacy and treatment initiation among women with cervical cancer at public referral hospitals in Kampala, Uganda: A descriptive cohort study Megan Swanson 2020	cervical	Hospital Uganda	April 2017 - September 2018	Patients	268 Questionnaire	Industry/business 92 Farming/domestic 175 not stated Married 121 Single/divorced/widowed 146 Less than primary 110 Higher than primary 151 100% Female ≥50 years 123 50 years 133	> 15 km 181 <= 15 km 86	The statistics were executed to reflect chance of receiving treatment rather than delay - see comment box not stated - financial constraints, including lack of funds to pay for travel and the nominal fees associated with radiation, surgery and diagnostic tests (69%) - long wait times (30%) not stated
Prognosis and delay of diagnosis among Kaposi's sarcoma patients in Uganda: A cross-sectional study Christopher De Boer 2014	Kaposi sarcoma	Hospital Uganda	June to October 2012	Patients	161 Other: case notes and standardized interviews	<100,000 UGSH =90 (58.1%) 100K - 500K UGSH =59 (38.1%) >500,000 UGSH =6 (3.9%) Primary 83 (51.6%) Secondary 58 (36.0%) Tertiary or degree 20 (12.4%) Male 111 (68.9%) Female 50 (31.1%) <30 =44 (28.0%) 31-40 =85 (54.1%) >40 =28 (17.8%)		- paid out of pocket tests or chemotherapy, 68 (42.2% p value 0.001) - visitation to a traditional healer was associated with experiencing diagnostic delay (OR 2.69, p = 0.020, 95% CI: 1.17-6.17). - visited a traditional healer 41 (25.5% p value 0.872) -Lack of money for transportation - Distance to UCI -Lack of money for transportation - Distance to UCI
Inequities in breast cancer treatment in sub-Saharan Africa: Findings from a prospective multi-country observational study Milena Foerster 2019	Breast	Hospital Uganda Nigeria Namibia	September 2014 - yearly 2016	Patients	1335 Other: Prospective multi-centric	Unskilled jobs 923 (70%) - not treated 172 (18.8%) treated 751 (81.2%) Skilled 503 (30%) - not treated 55 (13.8%) treated 348 (68.2%) Not stated Not stated 100% female mean age 50.7 (SD = 13.6)	Not stated	- BMI p=0.023 < 18.5 1.58 (0.70 to 3.59) AND 1.83 (0.79 to 4.21) 30+ 1.76 (1.10 to 2.81) AND 1.53 (0.95 to 2.47) - Belief in spiritual healing p=0.004 Yes 1.18 (0.83 to 1.68) 1.21 (0.84 to 1.21) not stated - cost - personal decision e.g (lack of belief in effectiveness, fear or non compliance to or rejection of therapy) not stated
Dissecting the journey to breast cancer diagnosis in sub-Saharan Africa: Findings from the multicountry ABC-DO cohort study Milena Foerster 2020	Breast	Hospital Uganda, Zambia, Namibia, Nigeria	September 2014 - September 2017	Patients	1429 Other: Interviews	Unskilled 1007 (70.5%) Skilled 242 (29.5%) Low SEP 810 (56.7%) medium/high SEP 439 (43.3%) Not married 710 (49.7%) Married 539 (50.3%) Primary/no education 628 (44.0%) Secondary/higher 801 (56%) 100% female mean 50.1	Not stated	-Age IRR 1.26 (0.89-1.79) -Low SEP IRR 1.10 (0.93-1.30) -Not married (only for Namibia, p<0.001) IRR 2.63 (1.22-5.64) and 1.28 (0.90-1.80) non blacks and blacks - Primary/no education IRR 1.16 (0.98-1.37), (not for Namibia non black p=0.037) -Unskilled labour IRR 1.22 (1.01-1.47) -Belief in traditional medicine IRR 1.03 (0.87-1.22), (only for Nigeria and Zambia, p=0.007) -Recent birth IRR 1.08 (0.84-1.38) -HIV positive (only for Namibia-blacks and Zambia, p=0.022) IRR 1.11 (0.70-1.76) and 2.12 (0.97-4.62) respectively -First symptom lump IRR 1.42 (1.14-1.76)-told not to worry -wrong diagnosis-lack of transport -transport costs-pain -fear
Health system constraints affecting treatment and care among women with cervical cancer in Harare, Zimbabwe O. Tapera 2019	cervical	Regional Zimbabwe	January to April 2018	Patients and clinicians	212: -patients 134 - health workers 78 Other: questionnaire, IDI, FGD	female patients 134 male how 15 female how 63 patients mean age 50.2 untreated cervical cancer and 52.9 for those with treated cancer health workers mean age 37.3 yrs	Distance from nearest cervical cancer screening health facility <10 km untreated 5 (12%) treated 30 (33%) 11-50km untreated 4 (10%) treated 18 (19%) > 50km untreated 1 (2%) treated =7 (8%) Don't know untreated 32 (76%) treated 37 (40%)	Women: -inability to see specialist - less access to regular general practitioners - paying out of pocket for health services Health care workers -inadequate training of HCW for cervical cancer treatment and care. - not knowing or having read both the National Cancer Prevention and Control Strategy (2013-2017) and the Cervical Cancer Prevention and Control Strategy for Zimbabwe (2016-2020) -not enough health professionals to meet the demand of services in health facilities -weak surveillance system for cervical cancer -unavailability of back-up for major equipment- didn't know estimated distances from their residence to the nearest cervical cancer screening -lack of finances. - Financial challenges - transport challenges