





# Gastric Cancer Factsheet: Insights & Key Developments

Key Insights on Gastric Cancer Care and Infrastructure

#### Core Pillars:

- Infrastructure
- 2. Treatment Access, Research Funding and Awareness Campaigns
- 3. Survival Rates, Early Detection and Palliative Care
- 4. Utilization of Biomarkers
- 5. Clinical Guidelines
- 6. Reimbursement
- 7. Gastric Cancer Screening

Gastric cancer remains one of the most prevalent cancers worldwide, affecting millions of individuals each year. Despite advancements in diagnostics, treatment, and awareness, disparities in access to care, molecular testing, and specialized centers persist.

This factsheet provides a comprehensive overview of key pillars shaping Gastric cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

- Incidence share: Gastric cancer is not among leading male cancers, but incidence is rising.
- Incidence rate: Around 4 per 100,000 men per year.
- Total new cases (2022): Around 600-700 men.
- Daily diagnoses: About 2 men per day.
- Deaths (2022): Approximately 500-600 men.
- 5-year survival rate: Likely under 30%, reflecting access and diagnosis barriers.
- Most affected age group: Typically men 60 and older.
- Screening participation: None; diagnosis occurs at later stages



## Uganda Infrastructure



#### Strengths

- Growing investment in regional cancer centers (e.g., Gulu, Mbarara) reduces overdependence on Uganda Cancer Institute (UCI) in Kampala.
- International partnerships (e.g., with Fred Hutch, African Cancer Institute) support facility development.

#### Opportunity

- Decentralization plans under Uganda's National Cancer Control Plan can reduce regional disparities.
- Expansion of digital health infrastructure (e.g., telepathology) to bridge specialist gaps.

#### Weakness

- Unequal distribution of infrastructure; rural areas lack diagnostic and treatment facilities.
- Persistent power outages and poor maintenance disrupt service delivery.

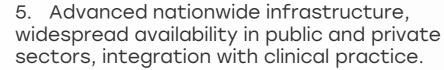
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#### Threats

- Budget limitations hinder consistent infrastructure upgrades.
- Dependence on donor funding risks sustainability.







4. Strong infrastructure in major hospitals and cancer centers, some regional disparities.



3. Moderate infrastructure, primarily in private settings or research institutions.



2. Limited infrastructure, available only in select centers or for high-cost private testing.



1. Minimal or no infrastructure, testing mostly unavailable or sent abroad.

Country	Specialized Centers	Genetic & Molecular Testing Infrastructure
South Africa	0	<u> </u>
Kenya		
Nigeria		
Egypt	0	<u> </u>
Morocco		
Algeria	0	
Ethiopia		
India	0	
Japan		
South Korea		
China		
Thailand		<u> </u>
Singapore		
United Kingdom		
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France		
Netherlands		0
Sweden		
Italy		
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Poland		<u> </u>
Mexico		<u> </u>
Brazil	<u> </u>	0
Argentina	<u> </u>	0
Chile	<u> </u>	0
Colombia	0	0
United States		
Canada		0
Australia	0	0
New Zealand	0	0
Greece	<u> </u>	0
Rwanda		
Uganda		
Serbia	<u> </u>	0
Saudi Arabia	0	0
UAE		
Syria		
Indonesia		
Vietnam		
Philippines		
Russia		
Malaysia		



## Uganda



Treatment Access, Research Funding and Awareness Campaigns

#### Strengths

- UCI provides free or subsidized treatment to eligible patients.
- Increasing government focus on cancer research through national strategies.

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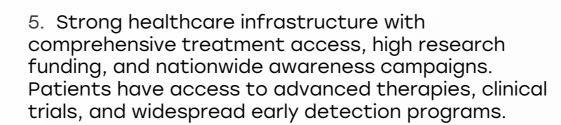
#### Weakness

- · Limited access to essential chemotherapy drugs outside Kampala.
- Low public awareness of gastric cancer symptoms leads to delayed presentation.

#### Opportunity

- Use of mobile awareness campaigns (e.g., radio, community health workers) to reach remote populations.
- External funding from global cancer research grants to support localized studies

- Out-of-pocket costs for travel, imaging, and nutrition deter treatment adherence.
- Competing public health priorities (HIV, TB) can divert funds from cancer control.



- 4. Well-developed system with good treatment availability, strong research funding, and effective but regionally focused awareness campaigns. Some disparities may exist in rural areas or between public and private sectors.
- 3. Moderate development, with specialized treatments available in major hospitals, research funding concentrated on specific cancers, and occasional but limited awareness efforts. Healthcare access may be restricted by cost or geography.
- 2. Limited system where cancer treatment is available only in select urban centers, research funding is minimal or sporadic, and awareness campaigns are rare or underfunded. Patients often face long wait times or financial barriers.
- 1. Poor infrastructure with severe barriers to treatment, little to no research funding, and lack of structured awareness campaigns. Cancer care is largely inaccessible, with many patients relying on out-of-pocket expenses or external aid.

South Africa	Country	Treatment Access	Research Funding	Awareness Campaigns
Nigeria	South Africa	<u> </u>		
Egypt	Kenya			
Morocco	Nigeria			
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Ethiopia	Morocco			
India	Algeria			
Japan	Ethiopia			
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United Kingdom         Image: Control of the cont	Thailand	0	<u> </u>	<u> </u>
Germany	Singapore			
France	United Kingdom			
Netherlands Sweden Italy Spain Poland Mexico Brazil Argentina Chile Colombia United States Canada Australia New Zealand Greece Rwanda Serbia Saudi Arabia UAE Syria Indonesia Vietnam	Germany			
Sweden	France			
Italy	Netherlands			
Spain         Image: spain of the spai	Sweden			
Poland  Mexico  Brazil  Argentina  Chile  Colombia  United States  Canada  Australia  New Zealand  Greece  Rwanda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	Italy			
Mexico Brazil  Argentina  Chile  Colombia  United States  Canada  Australia  New Zealand  Greece  Rwanda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	Spain			
Brazil  Argentina  Chile  Colombia  United States  Canada  Australia  New Zealand  Greece  Rwanda  Uganda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	Poland			
Argentina Chile Colombia United States Canada Australia New Zealand Greece Rwanda Serbia Saudi Arabia UAE Syria Indonesia Vietnam	Mexico			
Chile Colombia United States Canada Australia New Zealand Greece Rwanda Serbia Saudi Arabia UAE Syria Indonesia Vietnam	Brazil			<u> </u>
Colombia United States Canada Australia New Zealand Greece Rwanda Serbia Saudi Arabia UAE Syria Indonesia Vietnam	Argentina	<u> </u>		<u> </u>
United States  Canada  Australia  New Zealand  Greece  Rwanda  Uganda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	Chile	<u> </u>	<u> </u>	<u> </u>
Canada  Australia  New Zealand  Greece  Rwanda  Uganda  Serbia  Saudi Arabia  UAE  Indonesia  Vietnam	Colombia	<u> </u>		
Australia  New Zealand  Greece  Rwanda  Uganda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	United States			0
New Zealand Greece  Rwanda  Uganda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	Canada			0
Greece O O O O O O O O O O O O O O O O O O	Australia			0
Rwanda  Uganda  Serbia  Saudi Arabia  UAE  Syria  Indonesia  Vietnam	New Zealand	0		0
Uganda Image: Comparison of the comparison of	Greece	0	<u> </u>	<u> </u>
Serbia O O O O O O O O O O O O O O O O O O O				
Saudi Arabia  UAE  Syria  Indonesia  Vietnam  Saudi Arabia  O  O  O  O  O  O  O  O  O  O  O  O  O	Uganda			
UAE O O O O O O O O O O O O O O O O O O O	Serbia	0		0
Syria	Saudi Arabia	0		
Indonesia O O O O O O O O O O O O O O O O O O O		0	<u> </u>	0
Vietnam O				
	Indonesia	0	0	0
Philippines		0	0	0
		0	0	0
Russia O		0	<u> </u>	0
Malaysia O	Malaysia			



## Uganda

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Survival Rates, Early **Detection** and Palliative Care

#### Strengths

- National Palliative Care Policy supports pain relief services even in lower-level facilities.
- UCI offers pathology and imaging that support earlier detection compared to past decades.

## Opportunity

- Task-shifting palliative care roles to nurses and community volunteers.
- Develop and scale low-cost symptombased screening tools at primary care level.

#### Weakness

- Most patients p with advanced-stage gastric cancer due to symptom ambiguity and lack of screening.
- · Insufficient trained staff for comprehensive palliative care and psychological support.

#### **Threats**

- Late-stage diagnosis limits treatment success, contributing to high mortality.
- Stigma and cultural beliefs may discourage early health-seeking behavior.

5. High survival rates, strong early detection programs, and well-established palliative care services. Patients have access to timely diagnosis, advanced treatments, and comprehensive end-oflife care.

4. Good survival rates, effective early detection efforts, and accessible but regionally limited palliative care. Some disparities may exist in rural areas or for specific cancer types.

> 3. Moderate survival rates, early detection available but not widespread, and palliative care services mainly in urban centers. Some patients experience delays in diagnosis or limited end-of-life care.

2. Low survival rates, early detection efforts are inconsistent or underfunded, and palliative care is minimal or only available in select hospitals. Cancer patients face significant access barriers.

1. Very low survival rates, poor early detection infrastructure, and almost no palliative care services. Many patients are diagnosed late and lack proper support for pain management and end-of-life care.

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Country	Rates	Detection	Care
South Africa	<u> </u>	<u> </u>	0
Kenya			
Nigeria			
Egypt	<u> </u>		
Morocco			
Algeria			
Ethiopia			
India	<u> </u>	0	<u> </u>
Japan			
South Korea			
China			
Thailand			<u> </u>
Singapore			
United Kingdom			
Germany			
France			
Netherlands			
Sweden			
Italy			
Spain			
Poland			
Mexico			
Brazil			
Argentina			
Chile			
Colombia			
United States			
Canada			
Australia			
New Zealand			
Greece			
Rwanda			
Uganda			
Serbia	$\bigcirc$	<u> </u>	<u> </u>
Saudi Arabia	$\bigcirc$	<u> </u>	
UAE	$\bigcirc$	<u> </u>	
Syria			
Indonesia	$\bigcirc$	0	0
Vietnam	$\bigcirc$	0	0
Philippines	$\bigcirc$	0	0
Russia	$\bigcirc$	0	0
Malaysia			

Palliative

Early

Survival

Country



## Uganda Utilization of Biomarkers

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#### Strengths

- Presence of central labs at UCI with capacity for HER2 testing for breast cancer indicates potential to expand into gastric cancer.
- Regional collaboration (e.g., with African Pathology Network) can aid biomarker validation.

#### Opportunity

- Introduce pilot programs for HER2/PD-L1 testing in clinical trials or tertiary care.
- Collaboration with academic institutions to integrate biomarker research.

#### Weakness

- No routine access to biomarker testing for gastric cancer patients (e.g., HER2, PD-L1).
- Lack of trained molecular pathologists and standardized testing protocols.

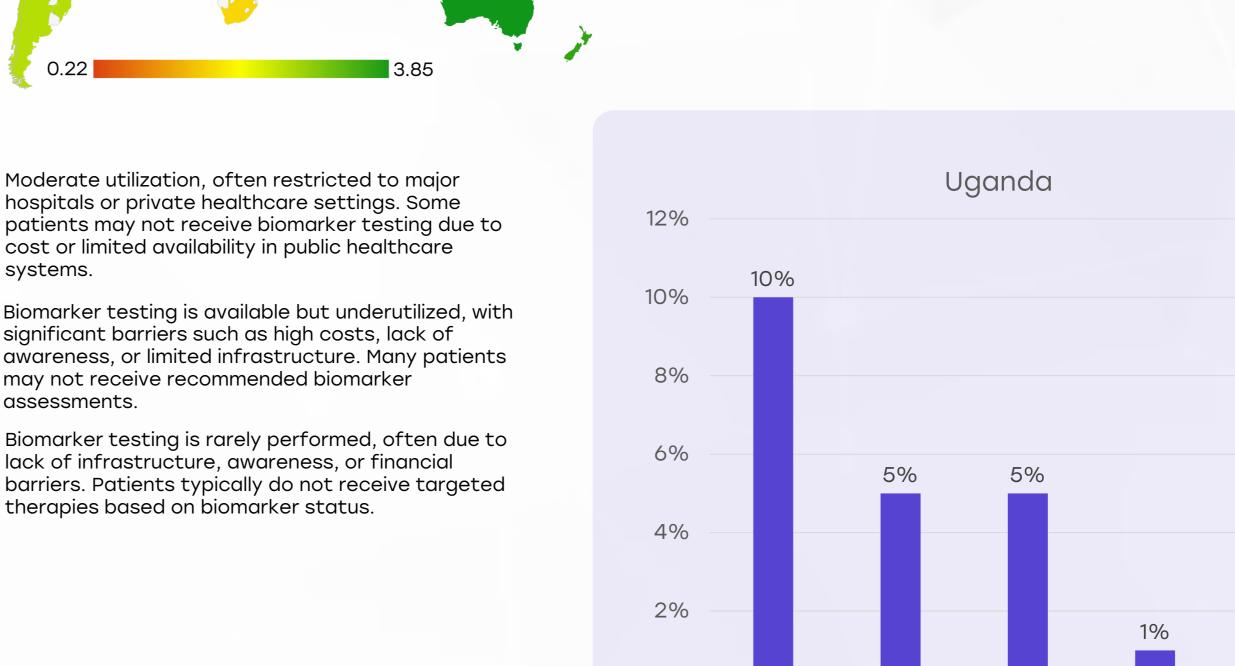
#### Threats

- High cost of reagents and lack of local suppliers hampers sustainability.
- Risk of inequity in access to targeted therapies due to biomarker test scarcity.

Moderate utilization, often restricted to major hospitals or private healthcare settings. Some patients may not receive biomarker testing due to cost or limited availability in public healthcare systems.

Biomarker testing is available but underutilized, with significant barriers such as high costs, lack of awareness, or limited infrastructure. Many patients may not receive recommended biomarker assessments.

lack of infrastructure, awareness, or financial barriers. Patients typically do not receive targeted therapies based on biomarker status.



0%

HER2

1%

FGFR2b

CLDN18.2

PD-L1

(CPS≥1)

MSI-H /

dMMR



# Uganda Suidelines

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#### Strengths

- Uganda Cancer Institute follows WHO and ESMO guidelines for cancer management.
- Multidisciplinary tumor boards operate at UCI to guide complex case management.

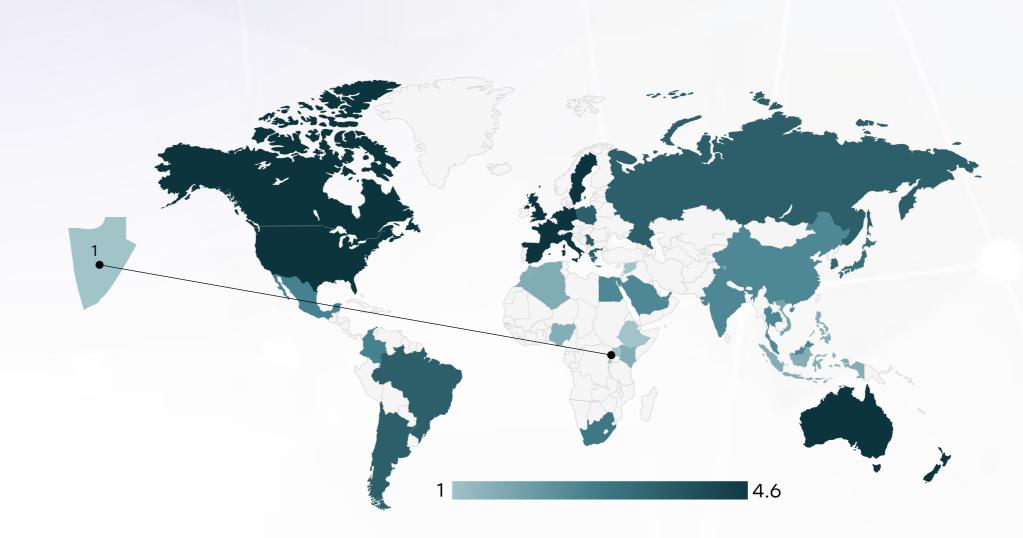
#### Opportunity

- Develop low-resource gastric cancer protocols through collaboration with regional experts.
- Training programs for clinicians in evidencebased care and early recognition.

#### Weakness

- No Uganda-specific gastric cancer guideline tailored to local epidemiology and resources.
- Inconsistent application of guidelines in district hospitals due to skill gaps.

- Overreliance on foreign guidelines may not reflect Ugandan clinical realities.
- Staff turnover and understaffing impede continuity in guideline implementation.



	Very High	High	Medium	Low	Very Low
Clinical Guideline Implementation	×	*	*	×	0
Feasibility of Integration	*	*	*	*	0
Adoption of International Guidelines	*	*	*	*	0
Engagement with Updates	*	*	*	*	0
ESMO Guidelines Implementation	×	*	*	*	0



## Uganda -Reimbursement

#### Strengths

- Government covers major cancer treatment costs through UCI for eligible patients.
- Some NGOs support indirect patient costs (transport, food, etc.).

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#### Opportunity

- Expansion of Uganda's National Health Insurance Scheme (NHIS) to include cancer.
- Leverage public-private partnerships to offer subsidized diagnostic services.

### Weakness

- No formal national health insurance coverage for all cancer-related costs.
- Diagnostic imaging and some surgeries are not consistently covered

- Low-income households may still be unable to afford associated care.
- Limited fiscal space in Uganda's health budget may delay insurance expansion.



- A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or publicprivate partnerships. Patients face no direct financial burden.
- A reimbursement framework is in place, but patients may still have out-of-pocket expenses such as co-pays, limited coverage, or financial caps on testing.
- No formal reimbursement system exists, meaning patients must fully cover the cost of biomarker testing out-of-pocket.

Country	Reimbursement Framework	No-cost Access
United States		$\bigcirc$
United Kingdom		
Canada		
Australia		
Germany		
France		
Netherlands		
Sweden		
Italy		
Spain		
Poland		
Japan		
South Korea		
China	0	
India	0	0
Singapore		
Thailand		
South Africa	0	0
Kenya	0	$\bigcirc$
Nigeria	0	
Egypt	0	$\bigcirc$
Morocco	0	
Algeria		
Ethiopia	0	0
Mexico		
Brazil		
Argentina		
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New Zealand		
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Serbia		
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UAE		
Syria	0	$\bigcirc$
Indonesia		0
Vietnam		$\bigcirc$
Philippines	0	
Russia		
Malaysia		





#### Strengths

- Integration of cancer education into primary care can aid symptom awareness.
- Some hospitals are beginning to adopt risk-based clinical assessments.

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#### Weakness

- No national gastric cancer screening program or formal endoscopic surveillance.
- Endoscopy units are scarce, with long waiting times and limited staff.

#### Opportunity

- Train nurses and general practitioners to identify high-risk individuals for referral.
- Pilot endoscopic screening in urban highrisk populations.

- Competing priorities may delay investment in gastric screening programs.
- High cost and limited insurance coverage of endoscopic screening.

Country	Gastric Cancer Screening
United States	Annual LDCT (50-80 years, high-risk smokers)
United Kingdom	LDCT for high-risk individuals (55-74 years)
Canada	LDCT for high-risk individuals (55-74 years)
Australia	No national program, high-risk groups advised LDCT
Germany	No national program, under evaluation
France	No national LDCT screening
Netherlands	Participating in European screening studies
Sweden	No national LDCT screening
Italy	Regional pilot LDCT screening
Spain	No national LDCT program
Poland	No national program
Japan	No national LDCT program
South Korea	LDCT for high-risk individuals (50-74 years)
China	No national LDCT program
India	No national LDCT program
Singapore	No national LDCT program
Saudi Arabia	No national LDCT program; some hospital-based opportunistic screening
UAE	No national LDCT program; early-stage pilot studies ongoing in select hospitals
Syria	No national LDCT program; screening not prioritized due to conflict
Malaysia	No program; high-risk CT pilots

Country	Gastric Cancer Screening
Thailand	No national LDCT program
South Africa	No national LDCT program
Kenya	No national LDCT program
Nigeria	No national LDCT program
Egypt	No national LDCT program
Morocco	No national LDCT program
Algeria	No national LDCT program
Ethiopia	No national LDCT program
Mexico	No national LDCT program
Brazil	No national LDCT program
Argentina	No national LDCT program
Chile	No national LDCT program
Colombia	No national LDCT program
New Zealand	No national LDCT program
Greece	No national LDCT program
Rwanda	No national LDCT program
Uganda	No national LDCT program
Serbia	No national LDCT program
Indonesia	No national LDCT program; opportunistic screening in private sector
Vietnam	No national LDCT program; early pilot screening studies in Hanoi and Ho Chi Minh
Philippines	No national LDCT program; feasibility and awareness programs under discussion
Russia	No formal national LDCT program; regional pilot screening programs in large cities