



# Colorectal Cancer Factsheet: Insights & Key Developments

Key Insights on Colorectal Cancer Care and Infrastructure

## Core Pillars:

- 1. 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. Colorectal Cancer Screening

Colorectal 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 colorectal cancer care, including specialized infrastructure, treatment accessibility, research funding, early detection, and palliative care.

- Incidence share: Colorectal cancer is rising and among the top 6-7 male cancers.
- Incidence rate: Around 8 per 100,000 men per year.
- Total new cases (2022): Approximately 11,500 men.
- Daily diagnoses (2022): About 31 men per day.
- Deaths (2022): Roughly 8,000 men.
- 5-year survival rate: Likely under 40%, due to low screening and delayed diagnosis.
- Most affected age group: Men aged 60-75.
- · Screening participation: Very limited; no organized national screening.





## Strengths

- Major hospitals in Jakarta, Surabaya, and Bandung offer oncology services, including colorectal cancer surgery and chemotherapy.
- Increasing investment in healthcare infrastructure under Indonesia's universal health coverage (JKN).

## Opportunity

- Government efforts to decentralize healthcare can help build oncology capacity in provinces.
- Mobile screening and telemedicine can extend access to remote and island populations.

#### Weakness

• Many districts lack specialized cancer centers or trained oncologists.

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• Diagnostic facilities like colonoscopy, MRI, and CT are unevenly distributed, mostly limited to Java and large urban islands.

#### Threats

- Geographic challenges (archipelagic structure) hinder uniform infrastructure development.
- · Aging public hospital equipment and understaffed rural centers risk reducing diagnostic and treatment quality.



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.

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



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Treatment Access, Research Funding and Awareness Campaigns



- Basic colorectal cancer treatment is included under the national health insurance (BPJS Kesehatan).
- Public awareness campaigns around digestive health are expanding, supported by NGOs and government agencies.

# Opportunity

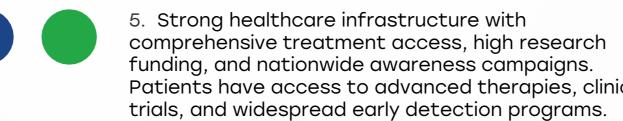
- Expanding partnerships with international research bodies can boost local capacity.
- Enhanced public education on symptoms and risks may reduce late-stage diagnosis.

#### Weakness

- Advanced therapies, like targeted drugs and immunotherapy, have limited availability and are often not covered by insurance.
- Low cancer research funding compared to infectious diseases, limiting clinical trials and data collection.

#### **Threats**

- High cost of noncovered treatments leads to financial toxicity for families.
- Misinformation and cultural stigma around cancer hinder participation in awareness programs.



- 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 an 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.
- 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.

	Country
	South Afri
	Kenya
	Nigeria
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	Morocco
<b>A</b>	Algeria
	Ethiopia
The state of the s	India
	Japan
	South Kore
- And	China
	Thailand
	Singapor
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19	Germany
	France
	Netherland
	Sweden
	Italy
	Spain
	Poland
earch	Mexico
igns.	Brazil
es, clinical	Argentino
grams.	Chile
ment	Colombic
ffective but Some	United Stat
een public and	Canada
	Australia
d .	New Zeala
search and	Greece
Healthcare	Rwanda
aphy.	Uganda
is available	Serbia
ing is minimal rare or	Saudi Arak
t times or	UAE
	Syria
to	Indonesio
nd lack er care	Vietnam
relying	Philippine

Country	Treatment Access	Research Funding	Awareness Campaigns
South Africa	<u> </u>	<u> </u>	<u> </u>
Kenya			
Nigeria			
Egypt			
Morocco			
Algeria			
Ethiopia			
India	<u> </u>		
Japan			
South Korea			
China	<u> </u>		
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Italy	0	0	0
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New Zealand	<u> </u>	<u> </u>	<u> </u>
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Uganda			
Serbia		<u> </u>	<u> </u>
Saudi Arabia	<u> </u>		<u> </u>
UAE		<u> </u>	0
Syria			
Indonesia			0
Vietnam			0
Philippines	<u> </u>	<u> </u>	0
Russia	<u> </u>	0	0

Malaysia



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

# Weakness

• Early-stage patients treated in top-tier hospitals achieve survival rates similar to international standards.

Strengths

• Growth in palliative care units, especially in urban cancer hospitals, supported by government policy.

screening coverage.

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 Limited training in symptom recognition at the primary care

#### advanced treatments, and comprehensive end-oflife care. 4. Good survival rates, effective early detection efforts, and accessible but regionally limited

- - 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.

palliative care. Some disparities may exist in rural

areas or for specific cancer types.

5. High survival rates, strong early detection

programs, and well-established palliative care

services. Patients have access to timely diagnosis,

- 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.

# Opportunity

- Integration of palliative care into communitybased health services under the BPJS framework.
- National cancer registry improvements can enable tracking of survival trends and treatment outcomes.

- Most colorectal cancers are detected in stage III or IV due to low awareness and
- level delays diagnosis.

- Uneven distribution of palliative care services across rural areas.
- Insufficient psychosocial support and pain management facilities outside of Jakarta and major





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**Utilization of Biomarkers** 

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### Strengths

- Top cancer centers like Dharmais National Cancer Center provide biomarker testing for KRAS and NRAS to guide treatment.
- Growing awareness among oncologists about MSI/dMMR and its importance in immunotherapy decisions.

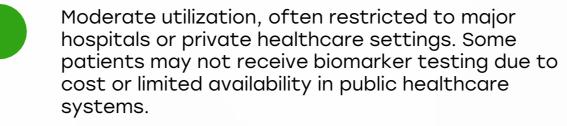
## Opportunity

- Collaborations with regional centers in Singapore or Malaysia could make advanced biomarker testing more affordable.
- Local validation of lowcost genetic testing models could promote equity in personalized treatment.

#### Weakness

- Testing for BRAF V600E, PIK3CA, and comprehensive NGS panels remains limited to high-end private labs.
- Costs are not covered by insurance, limiting access for the majority.

- Inadequate training and laboratory accreditation risk incorrect interpretation of complex biomarker data.
- Absence of national guidelines on biomarker use may result in underutilization and inequality.



- 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.
- Biomarker testing is rarely performed, often due to lack of infrastructure, awareness, or financial barriers. Patients typically do not receive targeted therapies based on biomarker status.





**Clinical Guidelines** 

## Strengths

- Major hospitals use global protocols (NCCN/ESMO) for staging and treatment.
- Indonesian Ministry of Health has introduced general oncology treatment standards.

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#### Weakness

- No country-specific colorectal cancer clinical guidelines tailored to resource constraints.
- Treatment standardization across public and private hospitals is inconsistent.

# Opportunity

- Development of national colorectal cancer guidelines could improve consistency and outcomes across all regions.
- Digitalization of protocols and decision-making tools can support primary-level doctors in early management.

- Variability in adherence to best practices could lead to mismanagement or overtreatment.
- Limited monitoring or enforcement of clinical guideline use across provinces.



	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	*



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Reimbursement

### Strengths

- Universal health insurance (BPJS Kesehatan) provides free or subsidized treatment for colorectal cancer surgery, radiotherapy, and chemotherapy.
- Low-income populations benefit from public hospital subsidies and referral networks.

## Opportunity

- Gradual inclusion of molecular testing and newer therapies in the BPJS formulary based on costeffectiveness studies.
- Tiered insurance models with co-payment options could expand access to advanced treatment.

#### Weakness

- Targeted therapies (e.g., cetuximab, bevacizumab) and molecular diagnostics are not reimbursed under BPJS.
- Bureaucratic delays in the claims process affect continuity of care.

- Cost-cutting measures could threaten inclusion of high-cost cancer interventions.
- Inconsistent claim approvals and hospital payment delays may disincentivize providers.



- A structured reimbursement system exists, ensuring biomarker testing is covered through national healthcare systems, insurance, or public-private 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		
United Kingdom		
Canada		
Australia		
Germany		
France		
Netherlands		
Sweden		
Italy		
Spain		
Poland		
Japan		
South Korea		
China		
India		
Singapore		
Thailand		
South Africa	0	
Kenya	0	
Nigeria	0	
Egypt	0	
Morocco	0	
Algeria		
Ethiopia	0	
Mexico		
Brazil		
Argentina		
Chile		
Colombia		
New Zealand		
Greece		
Rwanda	0	
Uganda	0	
Serbia		
Saudi Arabia		
UAE		
Syria	0	
Indonesia		
Vietnam		
Philippines		
Russia		
Malaysia		



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Colorectal Cancer Screening

#### Strengths

- Pilot screening using fecal immunochemical test (FIT) has been introduced in select districts.
- Community health programs provide a platform for rolling out future national screening efforts

# Weakness

- No formal populationwide colorectal cancer screening program exists.
- Low public awareness of the importance of screening, particularly among men and rural populations.

# Opportunity

- Integration of FIT and colonoscopy into regular health checks for adults over 50 can improve early detection.
- Community health workers (Posyandu and Puskesmas staff) can help implement screening in rural areas.

- Low colonoscopy capacity may create backlogs if FIT programs scale up rapidly.
- Cultural beliefs around rectal exams and colonoscopy may hinder participation.

Country	Colorectal 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	Colorectal 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