Dr. Barrie Strafford Centre for Learning Innovation & Quality

The Brenda Strafford Foundation

Jamaica Eye Health Review

White Paper

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Acknowledgment

Information retrieved from Eye Health Services in Jamaica: A Desk Review. November 21, 2024, that was prepared by: Mona Ageing and Wellness Centre, University of the West Indies, Mona

THE UNIVERSITY OF THE WEST INDIES
MONA CAMPUS, JAMAICA, WEST INDIES

Introduction

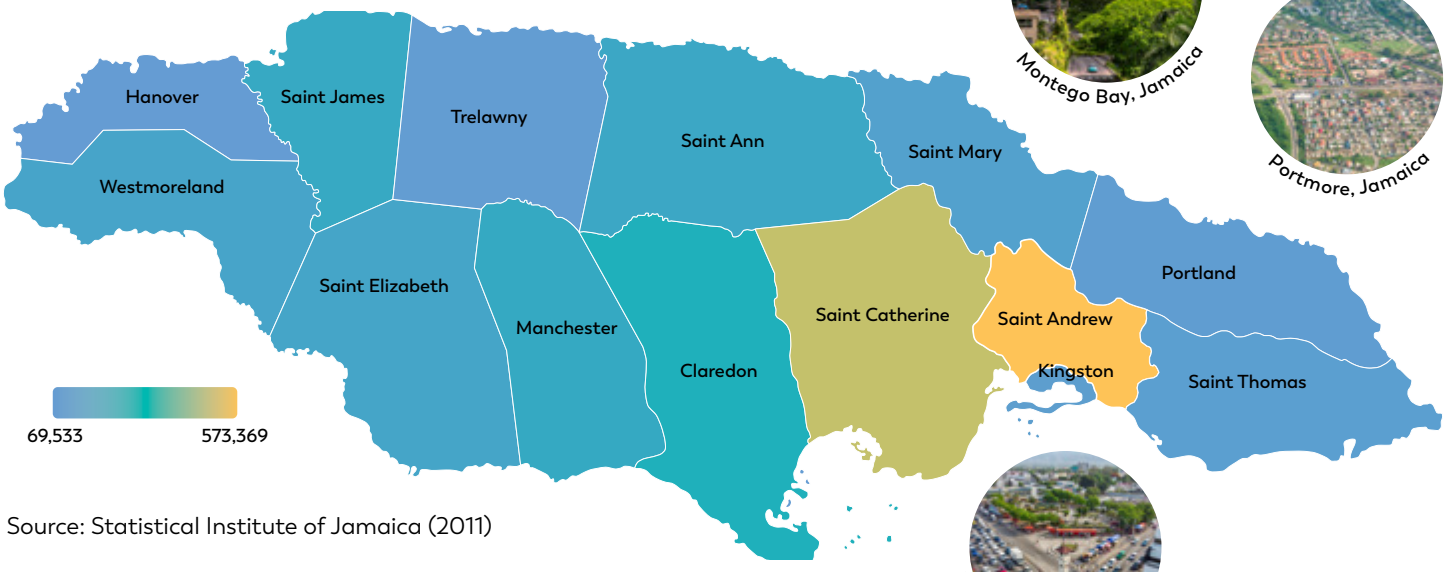
Jamaica, an island nation in the Caribbean Sea, is home to approximately 2.7 million people as of 2019.

The country is divided into 14 parishes, with its capital, Kingston, located in the southeast. The demographic landscape is marked by high population density in urban areas, particularly in Kingston and St. Andrew, and an aging population, with 13.9% of residents aged 60 years or older as of 2022. Life expectancy at birth averages 74.5 years for males and 78.1 years for females.

Economically, Jamaica is classified as an upper-middle-income country by the World Bank, with a Gross National Income (GNI) per capita of USD $9,319 in 2019.

Jamaica's health system faces challenges in delivering comprehensive public health services, including eye care. Governed by the Ministry of Health and Wellness (MOHW), the system operates through its Ten-Year Strategic Plan 2019–2030 and Vision for Health 2030, which aim to improve the overall health outcomes of the population. A significant focus of these strategies is the integration of health services to address chronic non-communicable diseases (NCDs), which have a profound impact on eye health. NCDs are the leading causes of morbidity and mortality in Jamaica, disproportionately affecting older adults aged 60 years and above.

Jamaica Population Distribution by Parish



Source: Statistical Institute of Jamaica (2011)


Montego Bay, Jamaica

Portmore, Jamaica

Kingston, Jamaica (Capital City)

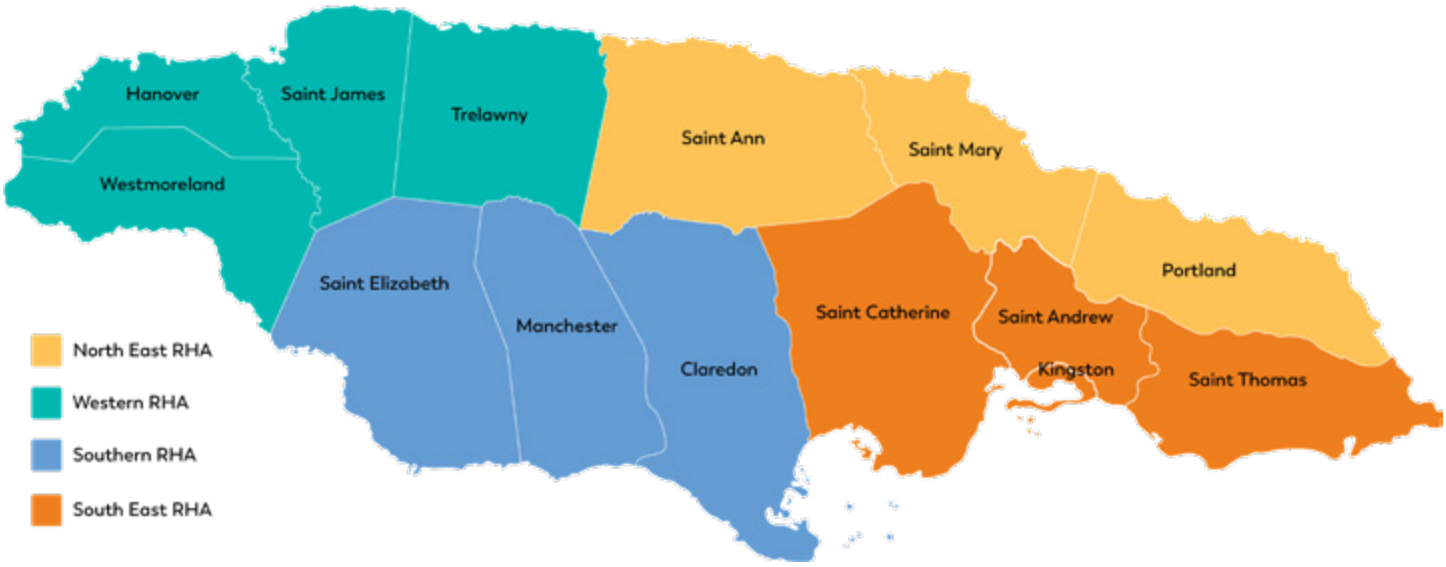
Background: Jamaica's Health System

The Jamaican health system operates through public and private sectors, with healthcare delivery overseen by four Regional Health Authorities (RHAs): South East, North East, Southern, and Western. The public sector comprises 327 Primary Health Care Centres, 106 public pharmacies, and 24 hospitals, categorized into Type A, B, and C based on their service capabilities. Additionally, there are 11 private hospitals contributing to the healthcare infrastructure.

The MOHW is currently implementing a reform of primary health care services, reclassifying facilities into three tiers: Community Health Centres, District Health Centres, and Comprehensive Health Centres. This restructuring aims to enhance accessibility and efficiency in service delivery. The reform also introduces an enhanced presence of special clinics and expanded services, including ophthalmological screenings for refractory errors, diabetic retinopathy, cataracts, and glaucoma at district and comprehensive health centres. A school-based eye screening program is also under consideration.

Public sector hospitals deliver over 95% of hospital-based care, while the private sector dominates pharmaceutical and diagnostic services. Additionally, the private sector provides approximately 50% of ambulatory care through a network of general practitioners, specialists, private laboratories, pharmacies, and hospitals.

Jamaica Regional Health Authorities by Parish



Eye Health Status in Jamaica

Eye health is recognized as a critical component of public health in Jamaica, particularly given its association with NCDs such as diabetes and hypertension. Despite the integration of eye care services within the broader healthcare framework, significant challenges remain. Eye conditions related to NCDs are a significant source of morbidity and disability, yet limited prevalence studies on specific eye conditions hinder effective intervention strategies and evidence-based planning.

Eye Condition	Prevalence & Findings	Source
Cataract	22% (self-reported, adults 60+, 2012)	Eldemire-Shearer et al., 2012
Glaucoma	12% (self-reported, adults 60+, 2012)	Eldemire-Shearer et al., 2012
Diabetic Retinopathy	High frequency in UHWI patients, linked to poor glucose & blood pressure control	Mowatt, 2013
Primary Open-Angle Glaucoma	Leading cause of blindness in Jamaica since 1950	Degazon, 1952; Jordan & Mowatt, 2022

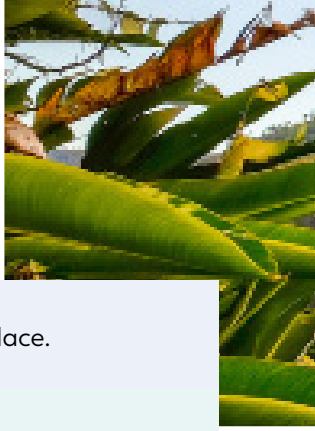
Although some progress has been made, such as the implementation of the National Strategy and Action Plan for the Prevention and Control of NCDs in Jamaica 2013 to 2018 and the establishment of a pilot diabetic retinopathy screening programme in primary care settings within the Southern and South East regions, critical gaps persist in eye health services.

A National Strategic Plan for Eye Care has been developed but is yet to be officially published by the MOHW. Additionally, Jamaica lacks a formal vision screening programme, though local physicians adhere to international screening and detection guidelines. Pediatric eye care services are notably limited, with gaps in detecting and treating retinopathy of prematurity and preventing ophthalmia neonatorum at birth.

Glaucoma is the only eye condition subsidized by the National Health Fund for medication costs, leaving other conditions without similar support. Furthermore, there is a disparity in the availability of eye care professionals, as most ophthalmologists and optometrists are concentrated in urban areas, leading to low patient-to-provider ratios. Of the 24 public hospitals in Jamaica, only six offer ophthalmological services, further limiting access to comprehensive care.

Leading Cause of Blindness and Moderate to Severe Vision Impairment among adults over age 50 in Latin America and the Caribbean

1	Cataract - 4%
2	Uncorrected Refractive Errors - 4%
3	Glaucoma - 3%
4	Age related macular degeneration and diabetic retinopathy
5	1994 Barbados Eye Study - more men were blind than women, however this is an anomaly.



Eye Health Governance, Leadership and Advocacy

Ministry of Health and Wellness:

Current Status	Gaps Identified
MOHW directs eye health policy; RHAs manage public sector services under MOHW agreements.	No national strategic plan currently in place.
Exists under the Director of Health Services, Planning & Integration.	Limited strategic direction and implementation capacity.
MOHW oversees private sector eye health practices.	No centralized national coordination or monitoring system.
Jamaica signed Pan American Health Organization/ World Health Organization (WHO) solutions on blindness prevention (2014); Vision 2020 oversight committee formed.	Vision 2020 oversight committee is no longer functional; no evidence of the 2016-2020 National Strategic Framework's implementation or monitoring.
Ophthalmologists governed by the Medical Council of Jamaica (The Medical Act, 1976); opticians & optometrists under The Opticians Act, 1926.	No specialist register for ophthalmologists; fragmented regulatory oversight.
The Ophthalmological Society of Jamaica established in 1985.	Voluntary organization, not a formal regulatory body.

Ophthalmological Society of Jamaica
Established 1985

Focus: Professional cooperation, advancing education, advocating for improving health services.

Jamaica Society for the Blind
Incorporated 1954

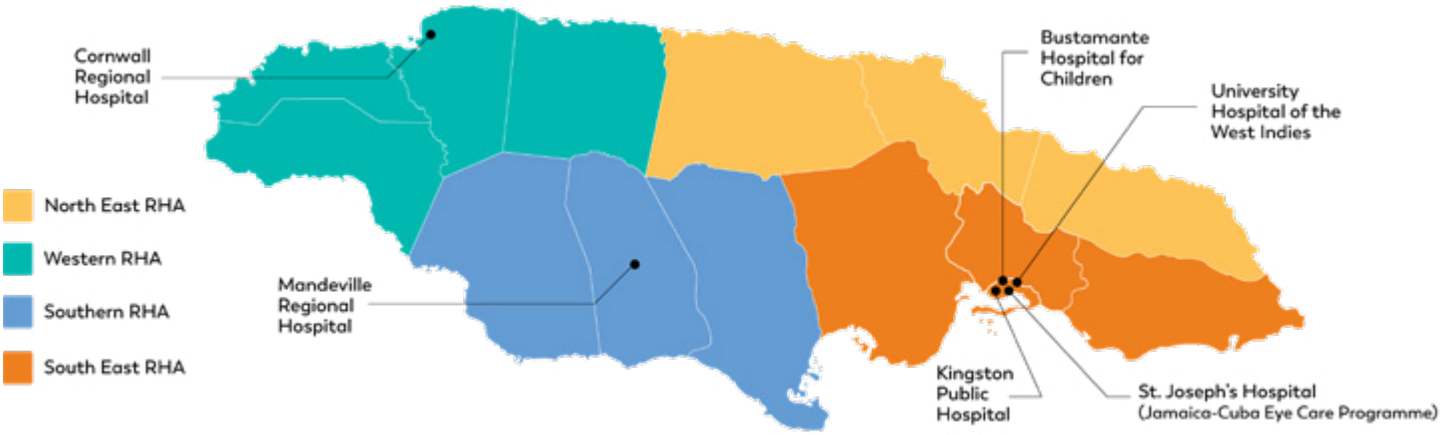
Focus: Advocacy and resources for blind and visually impaired persons, education, and rehabilitation.

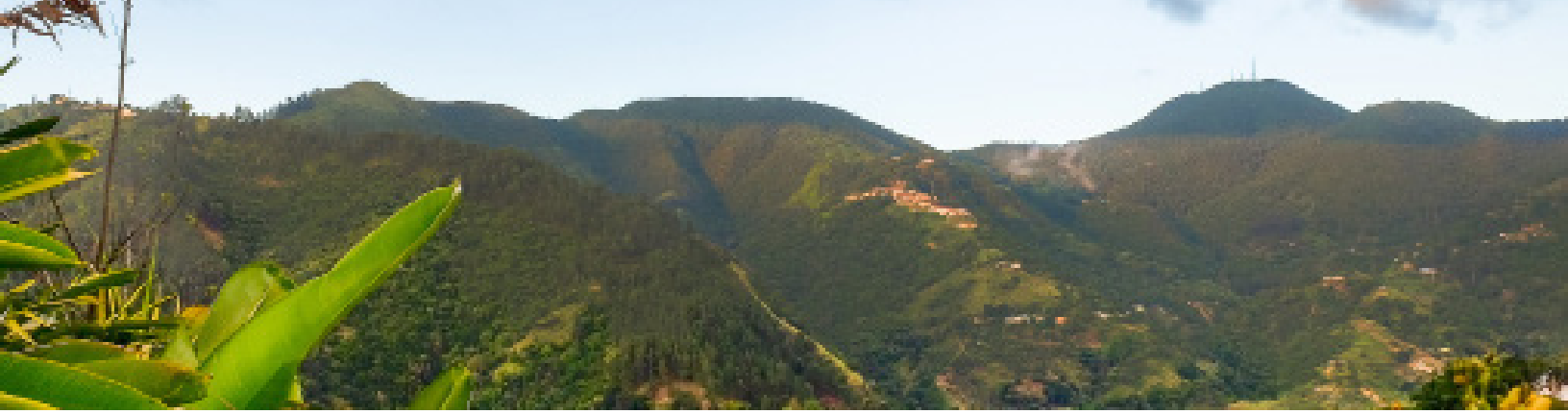
Challenges

Of the 11 Medium Term Socio-Economic Policy Framework goals related to eye health, only two have been completed: the pilot diabetic retinopathy screening programme in the Southern and Southeast regions and the development of the National Strategic Plan for Eye Care. Jamaica lacks a formal national vision screening programme and sufficient data collection systems, both of which are critical for identifying service delivery deficiencies and shaping evidence-based policies.

Eye Health Service Delivery

Service Delivery by Region





Aspect	Public Sector	Private Sector	Non-governmental organizations (NGOs) & International Collaborations
Governance	MOHW: Policy direction and oversight.	Regulated by MOHW.	Often partner with MOHW but operate independently.
Delivery	RHAs: Deliver services through government hospitals and health centres. Six out of 24 public hospitals offer ophthalmological services. Concentrated in Southeast, Southern, and Western regions.	Private hospitals and clinics. Dominate pharmaceutical and diagnostic services. Provide approximately 50% of ambulatory care.	Outreach programs and specialized missions.
Services Offered	Basic eye exams. Limited diabetic retinopathy screening (pilot program in some regions). Cataract surgeries (patients may need to purchase intraocular lenses (IOLs) privately). Neonatal eye care (tetracycline ointment for infection prevention). Limited ROP screening and treatment.	Comprehensive eye exams. Specialized treatments e.g., anti-vascular endothelial growth factor (anti-VEGF) injections for diabetic retinopathy. Quicker access to services. Wider range of medications and IOLs.	Eye care services to underserved populations. Examples: Jamaica-Cuba Eye Care Programme: cataract surgeries, other treatments. Cataract Camp Mission: surgical support. Education and rehabilitation services for the visually impaired (Jamaica Society for the Blind).
Access to Treatment	Uneven distribution of services; limited availability in rural areas. Long wait times: >82 days for routine visits, >540 days for surgeries. Glaucoma medication subsidized by the National Health Fund.	Quicker access to appointments and treatments. Higher costs for services and medications. Patients may face high out-of-pocket costs for certain procedures (e.g., anti-VEGF injections).	Targeted outreach to specific communities. Often provide services at reduced or no cost. May face limitations in resources and sustainability.
Key Challenges	Infrastructural and equipment deficiencies. Inadequate staffing (ophthalmologists, nurses). Long wait times for consultations and surgeries. Poor follow-up and record-keeping. Limited integration of eye care into NCD initiatives. Insufficient data for effective policy-making.	High costs may limit access for lower-income individuals.	Dependence on external funding and volunteer staff. Difficulty reaching all those in need.
Key Statistics	Only 6 out of 24 public hospitals offer ophthalmological services. Sickle Cell Retinopathy: 43% prevalence, only 28% undergo eye exams, and less than 50% had seen an opthalmologist in the past year (2016). Cataract Surgeries: 1,000-patient backlog at Mandeville Regional Hospital (2022).	Private IOL costs: JA$15,000–40,000.* Retinal Laser Surgery: JA$150,000 per session Cataract Surgery: JA$250,000-$390,000 per eye Consultation fees: JA$7,000- $12,000 per visit	Jamaica-Cuba Eye Care Programme: Thousands of surgeries performed since 2014.

**Jamaican Dollars (JA) to US Dollar (USD) Conversion: 1 JA = 0.006 USD (as of April 17, 2025)*

Continued: Eye Health Service Delivery

Condition	Service Provided	Limitations
Diabetic Retinopathy	Screening services were introduced in 2015 under the Caribbean Diabetic Retinopathy Project, with limited expansion since. Retinal laser therapy is available at select public hospitals and through the Jamaica-Cuba Eye Care Project.	Screening is limited, and only one health center offers routine eye screening. Anti-VEGF injections, a key treatment alternative, are only available privately at high costs.
Cataracts	Cataract surgeries are performed in public hospitals. The Jamaica-Cuba Eye Care Programme and international missions, such as the Cataract Camp Mission, have provided significant support, with thousands of surgeries performed since 2014.	Patients often face long backlogs. Patients are sometimes required to purchase intraocular lenses privately, with private costs for IOLs ranging from JA$15,000–40,000. A backlog of 1,000 patients was reported at Mandeville Regional Hospital as of 2022.
Pediatric Eye Health	Neonates are routinely treated with tetracycline ointment to prevent infections. Retinopathy of prematurity (ROP) screening and treatment are offered at select hospitals, though treatment capacity remains limited. Prevalence studies and adherence to international screening guidelines highlight gaps.	ROP treatment capacity remains limited. Lack of a cohesive national policy for pediatric eye care, despite some adherence to international screening guidelines.

Initiatives in Place: The Chronic Care Model for managing NCDs and planned expansion of screening at select district and comprehensive health centers.

Non-Profit and Non-Governmental Organizations

Non-profit organizations and NGOs are indispensable in Jamaica's eye health landscape. They not only provide essential services but also build local capacity through training and partnerships. Despite their impact, these entities require sustained support to expand their reach and address the growing demand for eye care services across the country.

Organization	Public	Private	NGO	Professional	Missions or Special Outreach Projects
The Brenda Strafford Foundation			X		X
Canadian Vision Care					X
Caribbean Council for the Blind			X		
Diabetes Association of Jamaica			X		
Government Hospitals and Health Centres	X				
iCARE Project					X
Jamaica-Cuba Eye Care Programme	X	X			
Jamaica School for the Blind					X
Jamaica Society for the Blind			X		
Kingston Lions Club			X		
Lions Club (Jamaica)			X		
Louis Grant Medical Centre (formerly Foundation for International Self-Help Development)			X		
Ministry of Health and Wellness (MOHW)	X				
Mission of Sight					X
Ophthalmological Society of Jamaica				X	
Orbis International					X
Regional Health Authorities (RHAs)	X				
Salvation Army School for the Blind and Visually Impaired Children			X		
Sightsavers International					X
The American Friends of Jamaica					X
The Cataract Camp Mission					X
The China-based Mission, Bright Journey Eye Care Mission					X
The Eye Health Institute					X
The National Health Fund	X				
The University of the West Indies (UWI) Hospital Services (Quasi-Public Services)	X				

Continued: Eye Health Service Delivery

Eye care services are concentrated in urban areas, with significant regional disparities. A directory of eye care centers identified 82 facilities nationwide, with the majority located in Kingston (66) and St. James (30). By contrast, rural parishes such as St. Mary and Hanover have only two centers each. This unequal distribution exacerbates challenges in accessing timely eye care for rural populations.

Health Density: 2.71 Doctors and nurses per 1,000 population

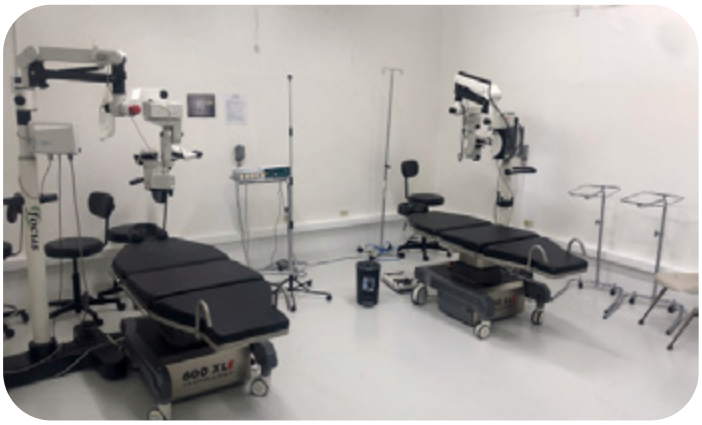
Physician Density: 9.0 Doctors per 10,000 population

Nurse Density: 18.1 Nurses per 10,000 population

Currently falling below minimum density ratio of 4.45 skilled healthcare workers to 1,000 recommneded by the WHO for Universal Health Coverage and the Sustainable Development Goals

Category	Details	Key Statistics
Optometrists	UWI and the All-American Institute of Medical Sciences (AAIMS) providing programs for optometrists	Estimated: One Optometrist for every 85,623 people equaling to 33 Optometrists nation wide. A voluntary listing identified only 18
Ophthalmologists and sub-specialists	UWI and the AAIMS providing programs for optometrists	Approximately 56 ophthalmologists practice in Jamaica's private sector. 10 serving in public sector. • Corneal Specialist: 1 • Retinal Specialists: 3 • Paediatric Ophthalmologists: 0 • Glaucoma Specialist: 1 (in training) • Ophthalmic Nurses: 2 (last confirmed in 2016)

Ophthalmologists are regulated by the Medical Council of Jamaica in accordance of the Medical Act (The Medical Act, 1976). The council does not maintain a register of specialist practitioners. They are governed by the Opticians Act. (The Opticians Act 1926)



Challenges

1.Shortage of Professionals: Both optometrists and ophthalmologists are in critically low supply, hindering the country's ability to meet eye care demands.

2.Urban Concentration: Eye health services are disproportionately located in urban areas, leaving rural communities underserved.

3.Lack of Public Sector Employment for Optometrists: Without formal integration into the public health system, optometrists' contributions remain limited.

Training and Capacity Building in Jamaica's Eye Health Sector

Jamaica is making significant progress in enhancing its eye care services through comprehensive training programs in ophthalmology and optometry. These educational initiatives are crucial in meeting the increasing demand for specialized eye care and in addressing the growing challenges of preventable blindness in the country. Notably, UWI and AAIMS are at the forefront of these efforts, providing structured training for ophthalmologists and optometrists, respectively. These programs are integral to expanding the number of skilled professionals and improving access to eye care services.

UWI offers the Doctor of Medicine (DM) Ophthalmology program, which has been in place since 2004. This program provides medical graduates with the necessary training to become specialists in ophthalmology, with an option to pursue an international clinical elective. Since its inception, 24 candidates have been accepted into the program, with 10 graduates in the past four years, although not all graduates remain in Jamaica's ophthalmology workforce. The program's success is vital to improving the country's ophthalmological capacity, particularly given the increasing need for specialized care due to the ageing population and chronic disease trends.

Optometry training in Jamaica is offered by AAIMS in partnership with UWI, St. Augustine. The four-year Bachelor of Science in Optometry program includes a clinical internship year. This program is essential to the country's eye health services, particularly for non-specialist eye care needs.

Despite the growth in the number of trained ophthalmologists and optometrists, there remains a need for more professionals to meet the increasing demand for eye care services, driven by demographic shifts and the rising burden of chronic diseases.

Category	Medical Officers* (Public Sector)	Optometrists (Private Sector)
Base Salary (as of 2023)	JA$6.8M – JA$10.6M per year	No official salary data
Additional Earnings	Overtime & emergency duties	Income depends on patient caseload & diagnostic services
Estimated Monthly Income	Varies based on duties	~JA$1.5M for a busy practitioner
Regulation	Government-regulated	Private practice with varying income sources
Key Considerations	Structured salary but earnings increase with extra duties	Earnings fluctuate based on patient volume & services offered

**Medical Officer (MO) is the designation given to registered medical doctors who work in the public system either in a "service post" or as a resident during their training.*

Financing Eye Health Services

Funding Sources

Government of Jamaica's Consolidated Fund	National Health Fund	Private Insurance	Donations from Development Partners	International Missions	Challenges
Primary public funding source for healthcare, including eye care.	Supports specific initiatives, including allocating JA$80.4M to the Jamaica Cuba Eye Care Programme.	Provides additional financial support for those with coverage.	Contribute to eye care funding but are not consistent.	Programs like "Bright Journey" fund cataract surgeries & medical equipment purchases.	Eye health is not always a prioritized budget item, leading to resource constraints in the public system.

Eye Health Information Management

Aspect	Current Status	Potential Impact of Electronic Health Record (EHR) Adoption
Data Collection Methods	Largely manual (paper-based).	N/A (describes current state)
EHR Adoption	Some private entities have adopted EHRs. The Government of Jamaica has made efforts to strengthen health information systems through pilot projects. Some hospitals, such as May Pen Hospital have engaged in EHR pilot exercise that began in 2023.	Supports more efficient planning and delivery of eye health services. Provides accurate and accessible data for decision-making.
Benefits of EHR Use	N/A (describes current state)	Improved planning and delivery of eye health services. More accurate and accessible data for decision-making. Better monitoring and evaluation efforts. Facilitates data-driven decision-making for resource allocation and service improvement. Improves the continuity of care through better communication and coordination among healthcare providers. Enhances the accuracy and completeness of patient records.

Conclusion and Future Directions

Jamaica's eye health sector has made significant strides through training programs, financial contributions, and the development of information management systems. However, challenges remain, particularly in terms of workforce expansion, sustainable financing, and data collection. A strategic governance framework, along with continued investments and collaborations, will be crucial in meeting the growing demand for eye care services. Advocacy and public awareness efforts, coupled with the expansion of comprehensive eye care services, will help reduce the burden of blindness and visual impairment in Jamaica. Additionally, the full implementation of electronic health records and routine data collection will further strengthen evidence-based practice and policy development, ensuring that eye health services are both comprehensive and accessible to all Jamaicans.

Initiatives by Livwell and The Brenda Strafford Foundation

- Provided the first two BSF Optometry Scholarships for students at AAIMS (September 2024)
- Invested in modern eye surgery equipment to help improve the quality of eye care surgery and training in Montego Bay (April 2025)
- Investing in a full-time ophthalmologist to increase access to low cost eye surgery, care, training. (July 2025)
- Investing in the training of ophthalmic surgical technicians in the public and non-profit sector (July 2025)
- Collaborating with regional and international groups to support the training of ophthalmologists in Jamaica and the Caribbean.
- Exploring the possibility of doing a RAAB study in Jamaica (March-May 2025)