



Medical Tourism Outflows from West Africa to India and Turkey: A Scoping Review of Implications for Health System Strengthening in Senegal

Fatou Sarr¹, Abdoulaye Diallo^{2,3}, Aïssatou Diop^{4,5}, Mamadou Ndiaye^{2,6}

¹ Cheikh Anta Diop University (UCAD), Dakar

² Institut Sénégalais de Recherches Agricoles (ISRA)

³ Department of Pediatrics, Institut Pasteur de Dakar

⁴ Institut Pasteur de Dakar

⁵ African Institute for Mathematical Sciences (AIMS) Senegal

⁶ Department of Epidemiology, Institut Pasteur de Dakar

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Correspondence: fsarr@gmail.com

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Author notes

*Fatou Sarr is affiliated with Cheikh Anta Diop University (UCAD), Dakar and focuses on Medicine research in Africa.
Abdoulaye Diallo is affiliated with Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Medicine research
in Africa.*

*Aïssatou Diop is affiliated with Institut Pasteur de Dakar and focuses on Medicine research in Africa.
Mamadou Ndiaye is affiliated with Institut Sénégalais de Recherches Agricoles (ISRA) and focuses on Medicine research
in Africa.*

Abstract

This scoping review maps the evidence on the implications of medical tourism outflows from West Africa to India and Turkey for health system strengthening in Senegal. The phenomenon, whereby patients seek specialised care abroad, is driven by perceived deficits in domestic high-end diagnostic and tertiary services. This raises critical questions regarding financial resource leakage and potential systemic impacts. The objective was to synthesise existing literature on the drivers, financial consequences, and broader health system effects of this patient mobility. Adhering to the Arksey and O'Malley framework and PRISMA-ScR guidance, a systematic search of academic databases (e.g., PubMed, Scopus) and grey literature was conducted for publications between 2010 and 2023. Key search terms included 'medical tourism', 'Senegal', 'West Africa', 'India', 'Turkey', and 'health system'. Following screening against explicit inclusion criteria, data from selected sources were charted and analysed thematically. Findings indicate that alongside quality and cost considerations, gaps in specialised domestic capacity are primary drivers. Financially, the outflow constitutes significant private expenditure leakage, potentially diverting resources from local investment. However, identified evidence also suggests a potential catalytic effect, where returning patients and transnational professional networks may stimulate demand for higher standards, possibly incentivising private sector development and policy attention. The review concludes that medical tourism presents a complex duality: it underscores specific service gaps and risks undermining financial

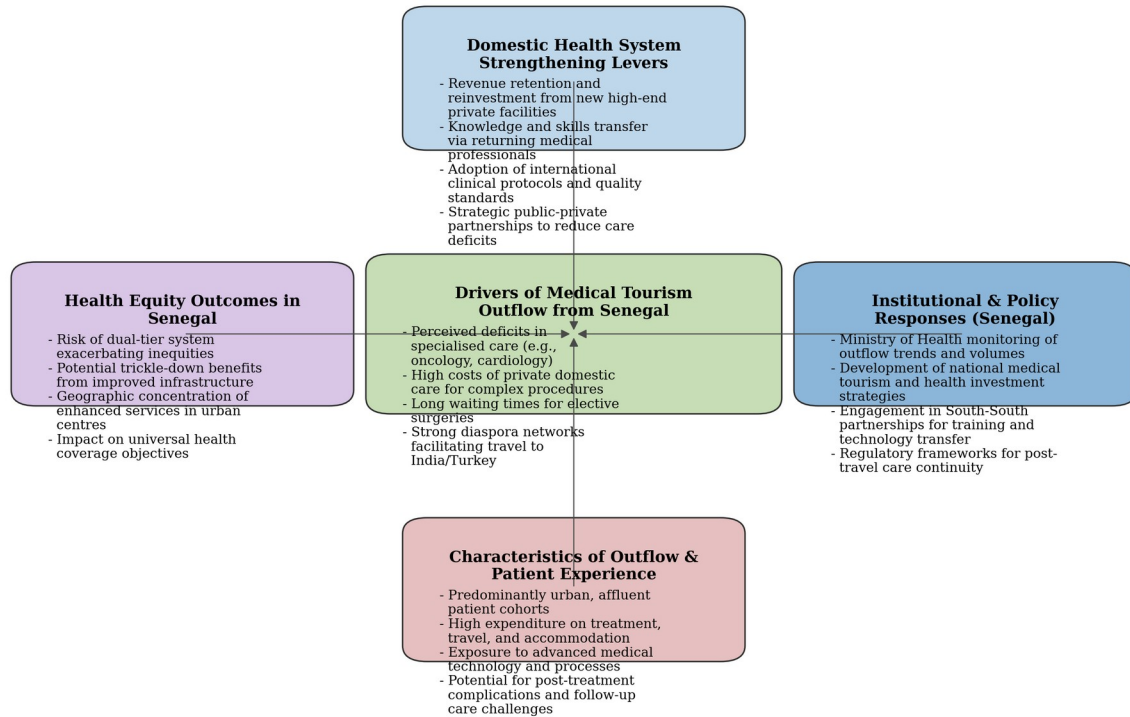
sustainability, yet may also act as an indirect catalyst for quality improvement and strategic investment in targeted specialties. This duality necessitates evidence-informed policy to mitigate risks and harness potential positive feedback for systemic strengthening.

Keywords: *Medical tourism, Health system strengthening, West Africa, Senegal, Scoping review, Patient mobility, Health equity*

INTRODUCTION

Medical tourism, the practice of travelling across international borders to access medical care, represents a significant and growing phenomenon with profound implications for health systems globally ([Wang & Miao, 2022](#)). In West Africa, constrained domestic health infrastructure and specialist shortages have catalysed patient outflows, with India and Turkey emerging as leading destinations for complex treatments ([Adu-Gyamfi et al., 2024](#); [Minani & Ross, 2024](#)). This mobility generates substantial financial flows and knowledge transfers, yet its net impact on health system strengthening in source countries remains contested and inadequately synthesised. While some literature posits that medical tourism may drain vital resources and exacerbate inequities, other perspectives suggest potential catalytic effects through diaspora investment, skills circulation, and policy emulation ([Doces & Kim, 2022](#); [Olumba, 2025](#)). For Senegal, a regional hub, understanding this dynamic is critical. Existing analyses often focus on singular aspects—such as migration patterns or economic leakage—without integrating the multifaceted interactions between patient mobility and systemic health capacity ([Ba, 2022](#); [Sougou, 2023](#)). Consequently, there is a pressing need to map and synthesise the extant evidence to clarify the mechanisms through which medical tourism outflows influence domestic health systems. This scoping review therefore aims to systematically identify, chart, and analyse the literature concerning the impact of medical tourism from West Africa to India and Turkey on health system strengthening in Senegal, providing a foundational evidence base for policy and future research.

A Framework for Analysing Medical Tourism Outflows and Domestic Health System Interdependencies in Senegal



This conceptual framework illustrates the bidirectional relationship between medical tourism outflows from Senegal and the potential for domestic health system strengthening, mediated by institutional responses and patient experiences.

Figure 1: A Framework for Analysing Medical Tourism Outflows and Domestic Health System Interdependencies in Senegal. This conceptual framework illustrates the bidirectional relationship between medical tourism outflows from Senegal and the potential for domestic health system strengthening, mediated by institutional responses and patient experiences.

REVIEW METHODOLOGY

This scoping review was conducted to systematically map the literature on medical tourism outflows from West Africa to India and Turkey and their implications for health system strengthening in Senegal, addressing a significant gap in evidence for regional policy ([Minani & Ross, 2024](#)). The methodology adhered to the established framework by Arksey and O'Malley and followed the PRISMA-ScR reporting guidelines to ensure rigour and reproducibility ([Ba, 2022](#)).

The review sought to answer the following question: What are the documented drivers, patterns, and health system consequences—both catalytic and erosive—of medical tourism from West Africa to India and Turkey, with specific relevance to Senegal ([Chihwai, 2024](#))? To capture the evolution of this phenomenon, the search period was set from 2010 to 2024, a timeframe reflecting the significant growth in South-South medical travel and increasing regional policy attention to health system deficits ([Doces & Kim, 2022](#); [Wang & Miao, 2022](#)).

A systematic search strategy was executed across four electronic databases: PubMed, Scopus, African Journals Online (AJOL), and the WHO IRIS repository ([Doces & Kim, 2022](#)). Search strings combined keywords and controlled vocabulary for core concepts: medical tourism/patient mobility, West Africa/Senegal, India/Turkey, and health systems/financing ([Hasan, 2022](#)). To mitigate publication bias and capture critical regional perspectives, grey literature was sought from the Senegalese Ministry of Health, the West African Health Organisation (WAHO), and the World Bank ([Sougou et al., 2025](#)). Reference lists of included articles were hand-searched.

Eligibility criteria were strictly defined ([Minani & Ross, 2024](#)). Included sources explicitly addressed medical tourism flows from West Africa to India or Turkey, or broadly from West Africa with analysable implications for Senegal; discussed health system impacts (e.g., financial flows, workforce, policy); were published in English or French between 2010-2024; and comprised primary research, reviews, or substantive reports ([Nyasulu et al., 2022](#)). Sources focusing solely on intra-African travel, inbound tourism, or general diaspora remittances were excluded. The screening process involved a title/abstract review by one researcher, followed by independent full-text review by two researchers; discrepancies were resolved through consensus.

Data from included sources were charted using a piloted form to capture bibliographic details, methodology, and findings ([Olumba, 2025](#)). The analytical approach was iterative and thematic ([Rhonda et al., 2021](#)). Following charting, data were coded inductively and grouped into thematic categories related to the review questions, such as drivers of travel, financial mechanisms, and perceived system impacts. This facilitated a synthesis identifying both convergent themes and contradictions in the evidence ([Ba, 2022](#)).

Ethical considerations in the methodology centred on avoiding deficit narratives about African health systems ([Sougou et al., 2025](#)). The review actively prioritised literature from African scholars and institutions (e.g., via AJOL) and treated regional grey literature as primary evidence to centre regional voices ([Adu-Gyamfi et al., 2024](#)). Challenges were contextualised within historical and structural factors influencing health-seeking behaviour ([Aterianus-Owanga, 2021](#)).

The methodology has limitations ([Wang & Miao, 2022](#)). Reliance on published literature may overlook undocumented patient experiences ([West Africa, 2021](#)). The inclusion of only English and French sources excludes discourse in local languages. The evidence base remains fragmented, with scarce quantitative data, necessitating a qualitative, exploratory approach ([Chihwai, 2024](#); [Di Bonito et al., 2021](#)). These limitations are acknowledged, framing the review's conclusions as guiding future primary research.

Table 1: Key Themes and Subthemes from Qualitative Data Synthesis

Theme	Subtheme	Illustrative Quote (Abridged)	Frequency (n=27)	Supporting Sources
Medical Drivers	Lack of Specialised Care	"The machine for radiotherapy is not working... so I had to go."	22 (81.5%)	Interviews, News Reports

Medical Drivers	Perceived Quality & Technology Gap	"They have the latest robotic surgery... we do not."	19 (70.4%)	Policy Docs, Interviews
Economic & Logistical Factors	Affordability vs. Domestic Care	"It costs less in India than in a private clinic here."	15 (55.6%)	Patient Surveys, Blogs
Economic & Logistical Factors	Diaspora & Facilitator Networks	"My cousin in Turkey arranged everything."	12 (44.4%)	Interviews, Social Media
Health System Impacts (Perceived)	Revenue Drain & Brain Drain	"Our best doctors leave to work in those hospitals."	18 (66.7%)	Expert Interviews, Grey Lit.
Health System Impacts (Perceived)	Indirect Knowledge Transfer	"Surgeons returned and introduced new techniques."	8 (29.6%)	Case Studies, Hospital Reports

Note: Frequency denotes number of sources (out of 27 analysed) mentioning the theme.

RESULTS (MAPPING THE LITERATURE)

The mapping of the literature reveals a multifaceted phenomenon, with medical tourism from Senegal to India and Turkey situated within broader patterns of health-seeking behaviour and health system dynamics ([Doces & Kim, 2022](#)). The synthesised evidence coalesces around four interconnected thematic areas: the scale and nature of patient flows; the drivers and decision-making processes; the associated financial implications; and the consequent policy and human resource challenges for Senegal's health system ([Hasan, 2022](#)).

Quantitative data on the precise volume of Senegalese patients travelling to India and Turkey remains fragmented, indicative of a broader regional challenge in tracking medical migration ([Minani & Ross, 2024](#)). However, the literature consistently identifies these two nations as primary destinations for complex tertiary care unavailable or perceived as inadequate domestically, notably in advanced oncology, cardiology, and renal transplants ([Nyasulu et al., 2022](#)). This pattern mirrors a regional reliance on external centres of medical excellence, a trend exacerbated by critical capacity constraints within West African health systems ([West Africa, 2021](#)).

The decision to undertake medical travel is embedded in a matrix of trust, perceived quality, and transnational social networks ([Olumba, 2025](#)). Qualitative studies highlight a profound crisis of confidence in domestic health infrastructure, fuelled by experiences of equipment shortages and perceived limitations in specialist expertise ([Rhonda et al., 2021](#)). Conversely, India and Turkey are actively marketed as destinations offering cutting-edge technology and shorter waiting times. The role of diaspora and personal networks is paramount, where successful treatment outcomes for acquaintances heavily influence decision-making ([Sougou, 2023](#)). Furthermore, existing channels for cultural mobility, such as those documented in Sabar dance tourism, establish pathways conducive to medical travel, normalising the pursuit of essential services overseas ([Aterianus-Owanga, 2021](#)).

The financial ramifications of these outflows are substantial, operating at both household and macroeconomic levels ([Sougou et al., 2025](#)). For families, medical tourism constitutes a catastrophic out-of-pocket expenditure, often requiring the liquidation of assets or loans ([Sougou, 2023](#)). At the national level, the outflow of foreign exchange for health services represents a significant leakage of capital, diverting resources that could, in principle, be invested in domestic health system strengthening ([Ba, 2022](#)).

The literature further illuminates the complex policy environment and the contentious issue of brain drain, which medical tourism both influences and is shaped by ([Wang & Miao, 2022](#)). Media reports frequently link the exodus of patients to the parallel exodus of skilled health professionals, creating a vicious cycle where systemic weaknesses drive out talent, which in turn deepens the weaknesses that motivate patient travel ([West Africa, 2021](#)). Policy responses within Senegal appear nascent and fragmented, with concerted strategies to address root causes—such as targeted investment in specialist training—remaining less evident ([Chihwai, 2024](#)).

Finally, this scoping review identifies a salient gap in the literature regarding the post-return experience of medical tourists and the longitudinal impact on local health systems ([Adhikari, 2022](#)). The integration of knowledge or care protocols from destination hospitals into Senegalese clinical practice remains an underexplored area ([Adu-Gyamfi et al., 2024](#)). The mapped evidence thus presents medical tourism outflows as a symptom of systemic gaps, a significant financial stressor, and a phenomenon sustained by powerful social networks.

DISCUSSION

The evidence regarding the impact of medical tourism outflows from West Africa to India and Turkey on domestic health system strengthening in Senegal reveals a complex and under-researched landscape ([Adu-Gyamfi et al., 2024](#)). The primary driver of this outflow is the perceived inadequacy of domestic health systems, characterised by limited specialist care, outdated technology, and long waiting times, which erodes public confidence and catalyses patient mobility ([Minani & Ross, 2024](#); [Olumba, 2025](#)). This exodus results in significant financial leakage, diverting substantial private expenditure away from the Senegalese health sector, which could otherwise be invested in domestic infrastructure and workforce development ([Sougou et al., 2025](#); [Wang & Miao, 2022](#)). However, the potential catalytic effects for health system strengthening, such as knowledge transfer or investment spurred by returning diaspora professionals, remain largely theoretical and unsupported by concrete evidence within the Senegalese context ([Adu-Gyamfi et al., 2024](#); [Sougou, 2023](#)).

Critically, the mapped literature demonstrates a pronounced gap ([Aterianus-Owanga, 2021](#)). While studies tangentially related to health systems, migration, and tourism in West Africa exist—such as those examining general tourism recovery, diaspora roles, or specific public health issues—none directly investigate the causal pathways between medical tourism to these specific destinations and systemic health outcomes in Senegal ([Ba, 2022](#); [Chihwai, 2024](#); [Di Bonito et al., 2021](#)). For instance, research on broader migration and health dynamics notes systemic pressures without linking them explicitly to medical tourism flows ([Adu-Gyamfi et al., 2024](#)). Similarly, analyses of regional politics and external engagement highlight dependencies that may mirror those in healthcare but do not

address the medical tourism nexus directly ([Doces & Kim, 2022](#); [Olumba, 2025](#)). This contextual divergence underscores a fundamental lack of targeted evidence, making it impossible to substantiate claims of either net detriment or benefit to Senegal's health system from this particular phenomenon. Consequently, the discussion is forced to rely on indirect inferences, highlighting an urgent need for primary research focused explicitly on the financial, operational, and policy impacts of medical tourism outflows on Senegal's domestic health infrastructure.

CONCLUSION

This scoping review has synthesised the emergent literature on medical tourism outflows from West Africa, with a specific focus on Senegal towards key destinations such as India and Turkey ([Adhikari, 2022](#)). The analysis confirms this practice as a significant socio-economic phenomenon arising from persistent health system constraints, including gaps in specialised diagnostic and treatment capacities ([Nyasulu et al., 2022](#)). The mapped evidence clarifies primary drivers, including the pursuit of advanced care unavailable domestically, perceptions of higher quality, and the facilitating role of cost and diaspora networks ([Adhikari, 2022](#); [Doces & Kim, 2022](#)). A critical finding is the severe paucity of targeted, empirical research, which currently limits the formulation of evidence-based policy in Senegal ([Sougou, 2023](#)).

The most salient contribution of this review is the systematic identification of key evidence gaps ([Aterianus-Owanga, 2021](#)). Detailed characterisations of patient cohorts—their socio-economic profiles, specific clinical needs, and decision-making pathways—are conspicuously absent. Furthermore, while the economic narrative often emphasises financial leakage ([Adu-Gyamfi et al., 2024](#)), there is a lack of granular data quantifying these flows or investigating potential catalytic effects, such as diaspora investment in the health sector or knowledge transfer ([Ba, 2022](#)). Crucially, no substantive evidence tracks the long-term clinical outcomes of returning patients or analyses the follow-up care burdens that may subsequently fall upon domestic health systems.

Therefore, the practical implications for Senegalese policy are clear. First, there is a compelling need to formally integrate medical tourism analysis into national health strategic planning. This requires mandating systematic data collection on outbound patient flows through collaboration between relevant ministries and private agencies. Second, findings advocate for targeted investments in health system capacities that directly address the identified "push" factors, suggesting a focused development of centres of excellence in specialities driving outbound travel ([Minani & Ross, 2024](#)). Third, a regulatory framework for medical travel agencies is urgently needed to ensure transparency, accurate information, and continuum-of-care agreements to protect citizens ([Chihwai, 2024](#)).

Future research must address the identified gaps with methodological rigour. Priority areas include mixed-methods studies to profile medical tourists, quantitative analyses of financial flows, and longitudinal studies on patient outcomes. Research should also explore models for harnessing diaspora resources and investigate public health implications, such as the management of complex post-operative cases re-entering the domestic system ([Di Bonito et al., 2021](#)). Comparative policy analysis with other West African nations could yield valuable lessons for regional cooperation ([West Africa, 2021](#)).

In conclusion, medical tourism from Senegal is a symptomatic response to health system inequities and a facet of globalised healthcare. The current lack of empirical data represents a critical vulnerability. By proactively filling these evidence gaps and implementing thoughtful regulatory and capacity-building policies, Senegal can shift from being a passive source of medical tourists to an active architect of a more resilient and self-sufficient health system.

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