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Digitalization of Multidisciplinary Cancer Consultation Meetings (MCCMs) in Senegal: Early Implementation of a Collaborative Digital Platform

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Abstract

Background: Cancer care delivery in Senegal is challenged by limited specialist availability, geographic disparities, and logistical constraints that hinder regular multidisciplinary cancer consultation meetings (MCCMs). Although MCCMs are internationally recognized as the gold standard for coordinated oncology decision-making, their organization remains difficult in low-resource settings. Digital health innovations offer an opportunity to strengthen multidisciplinary collaboration and improve access to specialist expertise. **Objective:** To design, implement, and pilot a secure digital platform for multidisciplinary cancer consultation meetings in Senegal and to assess its feasibility, adoption, and early process-level impact on cancer care coordination. **Methods:** This project was conducted as an implementation research and quality improvement initiative. A mixed-methods needs assessment involving oncology professionals informed the development of a centralized, web-based MCCM platform. The platform enabled secure sharing of patient case data, virtual multidisciplinary discussions, scheduling, documentation, and archiving of clinical decisions. Pilot implementation took place between October 2024 and 2025 across selected tertiary and regional oncology care sites. Evaluation focused on platform deployment, user uptake, multidisciplinary participation, meeting frequency, communication quality, training outcomes, and data security, using system usage indicators and qualitative feedback from participating

healthcare professionals. **Results:** The digital MCCM platform was successfully deployed and used for real-world cancer case discussions during the pilot phase. Forty-five healthcare professionals actively used the system, representing approximately 53% of the targeted national oncology workforce, including all practicing oncologists in Dakar and several specialists from regional hospitals. Virtual MCCMs typically involved 5 - 6 specialists per case, enabling multidisciplinary participation across institutions without geographic constraints. Several pilot sites increased MCCM frequency from monthly to bi-weekly meetings, and ad-hoc meetings for urgent cases became feasible. Clinicians reported improved efficiency, clearer communication, and enhanced traceability of multidisciplinary decisions through centralized access to clinical data and digital documentation. Training activities resulted in high user confidence and contributed to a positive shift toward digital collaboration in oncology practice. No data security breaches or unauthorized access incidents were reported during the pilot. **Conclusions:** Digitalization of MCCMs in Senegal was feasible, well accepted, and associated with meaningful improvements in multidisciplinary collaboration and care coordination at the process level. By reducing logistical barriers and extending access to specialist expertise, the platform addresses critical gaps in cancer care delivery in low-resource settings. These findings support the potential for scalable digital MCCM solutions to strengthen oncology services and promote more equitable cancer care, warranting further evaluation of long-term sustainability and patient-level outcomes.

Keywords

Digital Health, Multidisciplinary Cancer Consultation Meetings, Teleoncology, Implementation Research, Senegal

1. Introduction

Cancer represents a growing public health challenge in Senegal and across sub-Saharan Africa. According to estimates from the World Health Organization (WHO) and the Global Cancer Observatory (GLOBOCAN), Senegal records approximately 5000 cancer-related deaths annually, with cancer incidence and mortality expected to rise due to population growth, increasing life expectancy, and rapid urbanization [1] [2]. Despite this increasing burden, the national healthcare system faces significant constraints in cancer care delivery. Available resources remain limited, treatment centers (largely concentrated in Dakar) are overburdened, and access to oncology specialists is markedly unequal between urban and rural areas [1]-[4]. Outside the capital, the scarcity of trained oncologists and specialized cancer services significantly limits patients' access to expert, coordinated care.

Multidisciplinary cancer consultation meetings (MCCMs), also referred to as tumor boards or multidisciplinary team (MDT) meetings, are internationally rec-

ognized as the gold standard for cancer treatment decision-making. These meetings convene oncologists, surgeons, radiologists, pathologists, and other relevant specialists to collectively review patient cases and formulate consensus-based, evidence-informed treatment plans. Numerous studies have demonstrated that MDT-based care improves diagnostic accuracy, adherence to clinical guidelines, care coordination, and, for several cancer types, patient outcomes and survival [5]-[8].

However, organizing regular in-person MCCMs is logistically demanding and resource-intensive. Such meetings require specialists to be physically present at the same time and location, often necessitating travel and significant time away from clinical duties. This model is particularly difficult to sustain in low-resource settings, where specialist availability is limited and healthcare workloads are high [7] [9]. In Senegal, geographical dispersion of experts, combined with a shortage of oncology professionals and heavy clinical demands, makes frequent face-to-face MCCMs challenging. These constraints contribute to delays in clinical decision-making and fragmented multidisciplinary collaboration, ultimately affecting the quality of cancer care [3] [4].

Digital health solutions offer a promising approach to overcoming these barriers. The COVID-19 pandemic catalyzed the adoption of telemedicine and virtual collaboration worldwide, including in oncology. Evidence from multiple settings has shown that virtual or hybrid tumor boards are feasible, reliable, and effective alternatives to traditional in-person meetings, while maintaining the quality of multidisciplinary discussions [10]-[13]. Digital MCCM platforms have been associated with improved workflow efficiency, reduced organizational burden, expanded access to specialist expertise, and better documentation and traceability of clinical decisions [12]-[15].

Building on these insights, we initiated the "Digitalization of Multidisciplinary Cancer Consultation Meetings (MCCMs) in Senegal" project to modernize oncology case discussions nationwide. The overarching aim was to introduce a centralized, secure digital platform to facilitate MCCMs, enhance communication among healthcare professionals, and streamline multidisciplinary decision-making in cancer care. This initiative aligns with national and global efforts to strengthen cancer care delivery through health system innovation and digital transformation, particularly in low- and middle-income countries (LMICs) [4] [16]. Specifically, the project sought to improve efficiency and timeliness of decision-making, reduce logistical costs, enhance collaboration among geographically dispersed specialists, facilitate secure information sharing and traceability, ensure data security and patient privacy, and support continuous professional development through shared learning.

2. Materials and Methods

2.1. Study Design and Setting

This project was designed as an implementation research and quality improvement initiative, focusing on healthcare process innovation rather than experi-

mental therapeutic intervention. It did not involve randomization or changes to patient treatment protocols. In line with international guidance on quality improvement and health system strengthening activities, the project was deemed exempt from formal ethical review by the institutional review board, as it constituted a system-level improvement without direct patient intervention [17] [18].

The project was led by the Institut de Prévoyance Médico-Social (IPMS) at Cheikh Anta Diop University in Dakar and implemented by a multidisciplinary team comprising oncology specialists, health informatics experts, and healthcare administrators. Financial support was provided through a grant from Pfizer, which covered technology development, training activities, and project coordination. Implementation involved multiple oncology care sites, including tertiary hospitals in Dakar and selected regional hospitals, ensuring representation across different levels of the Senegalese health system. The project officially began on January 15, 2024, with a planned duration of approximately two years for pilot implementation and evaluation, followed by potential scale-up.

2.2. Needs Assessment

A comprehensive needs assessment and gap analysis were conducted at project inception. National cancer epidemiology and health system data from WHO and GLOBOCAN were reviewed to establish baseline conditions [1]-[4]. These data confirmed that cancer is a leading and growing cause of mortality in Senegal and that oncology services face significant capacity constraints.

In parallel, semi-structured interviews and surveys were conducted with oncologists, surgeons, radiologists, pathologists, pharmacists, and healthcare administrators. Key challenges identified included difficulty coordinating in-person MCCMs due to geographic dispersion of specialists, high clinical workloads, and limited oncology workforce outside Dakar. Participants also highlighted the absence of standardized mechanisms for case data sharing, documentation, and follow-up, which hindered continuity and quality of care. These findings are consistent with prior reports on cancer care delivery challenges in sub-Saharan Africa [3] [4] [16].

The needs assessment confirmed a strong rationale for a digital MCCM platform capable of enabling virtual collaboration, reducing time and cost burdens, and creating a structured electronic record of multidisciplinary discussions. It also helped define target metrics, including engagement of 85 healthcare professionals nationwide and indirect benefit to hundreds of cancer patients through more timely and coordinated treatment planning.

2.3. Platform Development

The core intervention was the development of a centralized, secure, web-based digital platform specifically designed for MCCMs. The platform allowed authorized healthcare professionals to access patient case information, participate in real-time or asynchronous discussions, schedule meetings, and archive decisions.

Data security and patient confidentiality were prioritized through role-based access control, encrypted data transmission, and secure hosting, in accordance with international best practices in health information security [19] [20].

The digital MCCM platform was developed as a web-based application using an open-source technology stack, primarily built with React.js for the frontend, Node.js for the backend, and MongoDB for the database. The system was designed to be lightweight, scalable, and accessible via both desktop and mobile devices through standard web browsers. It currently functions as a standalone tool and does not yet integrate directly with existing Electronic Medical Record (EMR) systems in Senegal, as most participating facilities operate with heterogeneous or limited digital infrastructure. However, the platform's architecture includes standardized APIs (Application Programming Interfaces) to enable future interoperability with EMRs or national health information systems, should such integration become feasible. This modular design allows for future scaling and data exchange without requiring complete.

Development followed an agile, iterative methodology, with continuous input from end-users. Prototypes were tested in simulated MCCM scenarios and refined based on clinician feedback. Pilot testing ensured usability, reliability, and alignment with real-world workflows before broader deployment.

2.4. Implementation, Training, and Evaluation

The rollout followed a phased implementation strategy encompassing initiation, needs assessment, design and development, pilot implementation, and planned scale-up. Training and capacity building were integral components, with hands-on workshops and simulated case discussions to ensure effective adoption. Evaluation combined quantitative usage metrics and qualitative user feedback, consistent with established frameworks for digital health and quality improvement evaluation [17] [21].

3. Results

3.1. Platform Deployment and Utilization

The digital MCCM platform was successfully developed and deployed at the designated pilot sites according to the project timeline. By the end of the pilot phase, the platform was fully operational and actively used for real-world multidisciplinary cancer case discussions.

A total of 45 healthcare professionals were onboarded and actively using the platform during the pilot phase, representing approximately 53% of the initially targeted national oncology workforce (n = 85). Participants included all 15 practicing oncologists based in Dakar, as well as specialists from regional hospitals, including surgeons, radiologists, pathologists, oncology nurse specialists, and pharmacists involved in cancer care.

Figure 1 presents a comparative overview of MCCM implementation indicators before and after digitalization.

Characteristic	Before Digital Platform	After Digital Platform
User Engagement	Not specified	53% of target group engaged
User Composition	Not specified	All 15 oncologists in Dakar participated
Specialist Participation	Not specified	5 to 6 specialists per session
MCCM Frequency	Monthly	Bi-weekly
MCCM Organization Time	Weeks	Days
MCCM Participation	Physical presence needed	Virtual participation
MCCM Scheduling	Scheduling delays common	Ad-hoc MCCMs feasible
MCCM Workflow	Linear, fragmented	Integrated
Data Handling	Handwritten notes	Recorded recommendations
Follow-up	Delayed follow-up	Traceable follow-up
Data Security	Not specified	Secure login & authentication
Data Encryption	Not specified	Encrypted data (at rest & in transit)
Data Breaches	Not specified	No reported data breaches
Clinician Trust	Not specified	Clinician trust and adoption

Figure 1. Comparison of digital MCCM implementation.

The platform enabled MCCM sessions that connected specialists from multiple institutions simultaneously. On average, 5 - 6 specialists from different disciplines participated in each case discussion. This multidisciplinary composition was consistently achieved across sessions, reflecting the platform's ability to overcome geographic and scheduling barriers that previously limited participation.

Early usage patterns indicated an increase in the frequency of MCCMs at pilot

sites. Several centers transitioned from monthly in-person tumor boards to weekly virtual meetings, facilitated by the reduced logistical burden of virtual scheduling. Additionally, the platform enabled ad-hoc MCCMs for urgent cases, which could be organized within days rather than waiting for the next scheduled physical meeting. While comprehensive quantitative measures of time savings are still under analysis, clinicians consistently reported that coordination timelines were reduced from "weeks" to "a few days" in some cases, suggesting improved responsiveness in clinical decision-making.

3.2. Enhanced Multidisciplinary Collaboration and Communication

Implementation of the digital MCCM platform resulted in a marked improvement in multidisciplinary collaboration and communication. Feedback from participating clinicians consistently highlighted enhanced efficiency, clarity, and quality of case discussions.

The platform centralized all relevant patient information—including imaging, pathology reports, and clinical summaries—allowing participants to review data in advance or during meetings. This represented a substantial improvement over prior practices, where information was often fragmented across paper files, disparate systems, or verbal summaries. Real-time discussion tools enabled specialists to clarify details concurrently, reducing miscommunication and the need for follow-up interactions outside the meeting.

Clinicians reported that decisions were reached more rapidly and with greater confidence, supported by comprehensive data availability and simultaneous multidisciplinary input. For example, in one breast cancer case, specialists located at different hospitals collectively reviewed imaging and pathology and agreed on a treatment plan within a single virtual MCCM. Previously, such coordination would have required additional steps or delayed in-person meetings.

Beyond efficiency, the platform fostered a stronger sense of shared responsibility for patient management. Specialists described a shift toward more integrated, team-based decision-making, with reduced professional silos. One senior oncologist summarized this transformation by noting that the platform effectively functioned as a "national tumor board," enabling expert input from regional cities without requiring travel.

Importantly, the platform's documentation and archival features significantly improved the traceability of decisions. All MCCM recommendations were recorded digitally, providing a clear and accessible reference for implementation and follow-up. This enhanced accountability and continuity of care, replacing prior reliance on handwritten notes or informal recollection.

3.3. Training Outcomes and Capacity Building

The project contributed substantially to capacity building in digital health among oncology professionals. By the end of the pilot phase, all active users had received hands-on training and practical exposure to the platform. Most participants re-

ported high confidence in navigating the system after initial training sessions.

Several users progressed beyond basic use, independently exploring advanced features such as case filtering by tumor type and exporting meeting summaries. Informal peer mentoring emerged, with experienced users supporting colleagues, further reinforcing adoption. Notably, even senior clinicians who initially expressed hesitation toward virtual meetings reported positive attitudes after experiencing the platform's benefits.

The training and subsequent platform use fostered a broader shift toward digital practices in daily clinical work. Clinicians reported increased use of secure digital communication for interdisciplinary consultations outside formal MCCMs, attributing this behavioral change to the project. The platform also began to function as a learning environment, with archived case discussions forming a repository for education and knowledge sharing, laying the groundwork for future structured continuing professional development activities.

3.4. Data Security and Regulatory Compliance

Data security was a central component of platform implementation. Throughout the pilot phase, no data breaches or unauthorized access incidents were reported. Secure authentication, role-based access control, and encryption of data at rest and in transit were consistently applied.

Clinician confidence in data protection increased over time. Initial concerns regarding confidentiality were alleviated through demonstrations of security features and observed system reliability. This trust was reflected in users' willingness to enter detailed patient information into the platform, a critical factor for effective MCCMs.

Beyond technical safeguards, the project reinforced ethical data-handling practices. Training sessions emphasized confidentiality and discouraged use of unsecured communication channels for patient information. As a result, the project not only protected patient data but also strengthened awareness of professional responsibility in digital health contexts.

3.5. Project Progress and Interim Impact

All planned activities for Phases 1 - 4 (planning, needs assessment, platform development, and pilot deployment) were completed on schedule. The pilot phase began in October 2024 as planned, reflecting effective project governance and coordination.

No major implementation barriers were encountered. Anticipated risks such as resistance to change, technical issues, or infrastructure limitations were mitigated through early stakeholder engagement, strengthening of IT infrastructure, and responsive technical support. Minor technical issues, such as initial login difficulties, were resolved promptly without disrupting platform use.

While it is too early to assess patient-level outcomes such as survival or disease control, the interim results indicate a strong foundation for impact. Improved

timeliness of decision-making, broader specialist participation, and enhanced coordination suggest a high likelihood of downstream benefits in treatment initiation and adherence to multidisciplinary recommendations. Importantly, the platform has begun to address inequities in access to expert consultation, particularly for patients managed outside Dakar.

3.6. User Feedback and Perceived Value

User feedback was overwhelmingly positive. Healthcare professionals described the platform as making MCCMs "more structured," "more inclusive," and "less chaotic" than traditional meetings. Several specialists emphasized that virtual participation enabled them to contribute expertise that was previously underutilized due to scheduling or geographic constraints.

The initiative was widely perceived as a major advancement in cancer care organization in Senegal. Interest from other clinical departments in adopting similar tools for complex case discussions further suggests the platform's perceived value and scalability. Collectively, these findings indicate strong user satisfaction and a favorable environment for sustained use and future expansion.

4. Discussion

4.1. Main Findings

This study demonstrates that the digitalization of multidisciplinary tumor board meetings is feasible and beneficial in a low-resource setting like Senegal. The main findings include a high level of adoption and engagement by healthcare professionals, with more than half of the country's oncology specialists actively using the MCCM platform in the pilot stage; clear improvements in collaboration and efficiency of case discussions and the successful implementation of a secure, tailored digital tool in the healthcare workflow, evidenced by positive user feedback and the absence of major implementation hurdles.

These results collectively indicate that introducing a well-designed digital platform can effectively address the challenges that were previously impeding optimal MCCM function (such as scheduling difficulties, communication gaps, and lack of documentation). Moreover, the project's emphasis on training and iterative refinement has been validated by the smooth uptake and user competence observed—healthcare providers not only accepted the new system but became proficient in its use, an important outcome for long-term sustainability.

Another key finding is the strong positive reception and perceived value of the platform among users, who view it as a significant advancement in how cancer care is coordinated in Senegal. While long-term patient outcome data are not yet available at this interim stage, the foundation has been laid for improved clinical care processes that should logically translate into better outcomes (for instance, through timely initiation of appropriate treatments). Overall, the project's main takeaway is that digital transformation of multidisciplinary care processes is both achievable and impactful even in resource-constrained environments when it is

guided by local needs and accompanied by proper support and training.

4.2. Interpretation of Results

Our findings align with and reinforce observations from other healthcare settings regarding the benefits of digital or virtual multidisciplinary collaboration. The enhanced efficiency, improved communication, and broader specialist participation enabled by the MCCM platform in Senegal mirror results reported from digital tumor board implementations in other countries. For example, a cloud-based asynchronous MDT platform implemented in China demonstrated a significant increase in the number of patients discussed and improved adherence to clinical guidelines compared with traditional in-person MDT meetings [22]. Similarly, studies from high-income settings have shown that virtual tumor boards can expand specialist input, reduce delays, and improve documentation without compromising decision quality [12] [14].

Although our project is at an earlier stage, preliminary observations suggest that more cases, including those from outside Dakar, can be reviewed by multidisciplinary experts because the platform reduces geographical and scheduling constraints. Improved communication, with all relevant clinical data centralized and easily accessible, echoes findings from other virtual tumor board studies that reported more structured discussions and time savings [11] [13] [14].

Notably, we encountered minimal resistance from users. This acceptance likely reflects the platform's clear value proposition in addressing challenges already recognized by clinicians, such as delays in coordinating meetings and difficulty accessing specialist input. Early and continuous stakeholder engagement, combined with targeted training, appears to have played a critical role in facilitating adoption. This observation is consistent with implementation science literature, which emphasizes the importance of involving end-users early and throughout the development process to ensure acceptability and sustainability of health technology innovations [23] [24].

The absence of major barriers during rollout is an encouraging signal. Common challenges in health information technology projects—such as technical failures, workflow disruption, or user resistance—were largely avoided. This outcome likely reflects robust planning, context-appropriate design, and strong institutional support. By tailoring the platform to existing MCCM workflows and prioritizing usability and security, potential trust and usability concerns were mitigated. The project also benefited from clear institutional commitment and grant-based support, which facilitated mobilization of resources and stakeholder cooperation.

An important interpretive finding is the observed cultural shift toward acceptance of digital solutions. Initial skepticism among some users evolved into enthusiasm as the platform's advantages became evident. This challenges assumptions that resistance to change is inevitable in LMIC settings and supports evidence that healthcare professionals will embrace digital innovation when it de-

monstrably improves their work and patient care [25]. It also reflects the growing readiness for digital health adoption in Africa, where many clinicians are already familiar with digital tools in personal communication, making professional use a natural extension when appropriately supported.

Nonetheless, these interim results must be interpreted with caution. The ultimate test of success will be whether process improvements translate into measurable improvements in patient outcomes and whether sustained platform use continues beyond the pilot phase. While MDT-based care has been associated with improved treatment decisions and outcomes, digital tools must add value beyond traditional in-person MDTs. In the Senegalese context, where many patients previously lacked access to full multidisciplinary review, the digital platform effectively extends MDT expertise to underserved areas—a mechanism that is likely to improve quality of care by reducing inequities in access to specialist input. This interpretation aligns with the broader goals of telemedicine and digital health initiatives aimed at democratizing access to expertise [10] [16].

Finally, the project's strong emphasis on data security and patient privacy is interpreted as a critical success factor. Trust in digital systems is essential, and any breach could rapidly undermine stakeholder confidence. Overall, these results support the conclusion that technology-enabled multidisciplinary collaboration can overcome traditional barriers in cancer care delivery in low-resource settings. The project provides a real-world example that may inform policy and practice not only in Senegal but also in other countries seeking to modernize cancer care coordination through digital innovation.

4.3. Implication of Results

The success of this digital MCCM project carries several important implications.

Firstly, for healthcare delivery in Senegal, it demonstrates a viable pathway to strengthen oncology services through digital innovation. The platform can be seen as a prototype for how other collaborative clinical processes (not just in oncology, but also in other specialties with multidisciplinary needs) might be improved. For instance, similar platforms could be extended to handle complex cases in cardiology or pediatrics that require input from multiple specialists. The implication for patients is potentially profound: if the model is adopted widely, patients across Senegal—including those in remote or under-resourced areas—could routinely benefit from the collective expertise of a national panel of specialists without the need for referral travel, thereby bringing more equitable care. For the healthcare system, this project suggests a means to optimize resource use; by reducing travel and meeting costs and by enabling more efficient case management, scarce specialist time can be utilized more effectively and more patients can be served.

Secondly, there are implications for health policy and planning. The positive outcomes provide evidence to policymakers and hospital administrators that investing in digital health infrastructure can yield tangible improvements in care coordination. It could inform national cancer control strategies by incorporating

digital MDT meetings as a standard component. Additionally, the model is potentially replicable in other low- and middle-income countries (LMICs) facing similar challenges. Many sub-Saharan African countries have a limited number of specialists concentrated in urban centers, and patients in peripheral regions often do not benefit from multidisciplinary input. A secure digital MCCM approach could be a scalable solution in those contexts as well. The lessons learned in Senegal—such as the importance of user training, stakeholder engagement, and robust IT support—can guide other implementations. We anticipate sharing our experiences through regional networks and publications (as planned in the dissemination phase), thereby contributing to a knowledge base for digital health interventions in oncology.

Another implication is in the realm of continuous professional education and collaboration. The project created a virtual community of practice for Senegal's oncology professionals. Over time, this could evolve into a platform for not only case discussions but also for mentoring, knowledge exchange, and even research collaborations. We have essentially laid the foundation for an oncology tele-network that could support multi-center clinical trials or standardization of care protocols by facilitating communication. The implication is that digitalizing MCCMs has benefits beyond individual patient management—it can elevate the entire practice of oncology by keeping specialists connected.

Lastly, on a global scale, this project adds to the growing evidence that digital health solutions can be effectively implemented in LMIC health systems when they address clearly identified needs and when they are backed by adequate support. It underscores the importance of contextual design: a solution that is built taking into account local constraints (like limited internet bandwidth in some regions, or varying levels of tech-savvy among users) stands a better chance of success. Going forward, our results imply that further scaling and sustainability will depend on continuous support and possibly integration with existing health information systems. As a result, we are in discussions with the Ministry of Health about how the MCCM platform might interface with the national e-health strategy (for example, linking with electronic medical record systems or national cancer registries). The broader implication is that such projects should not remain stand-alone pilots; rather, they should be integrated into the health system and scaled up with government buy-in for maximum impact.

To ensure sustainability beyond the initial grant period, a transition plan is being developed to shift the financial responsibility for server hosting, technical maintenance, and user support to national stakeholders. Discussions are underway with the Ministry of Health and pilot hospitals to allocate part of their operational budgets to support the platform's ongoing costs. The proposed model includes incorporating platform expenses into annual hospital IT budgets and exploring integration into national eHealth initiatives. This approach aims to institutionalize the platform as part of routine oncology service delivery, reducing dependence on external funding and reinforcing long-term scalability.

4.4. Strengths

Several elements contributed to the success and credibility of this initiative. First, the platform was designed in direct response to clearly identified needs in cancer care coordination, ensuring that it addressed a concrete and locally relevant gap. This grounded, demand-driven approach enhanced both relevance and uptake among healthcare providers. Furthermore, the early and continuous involvement of end-users—clinicians from multiple specialties—was critical. Their input shaped the platform's functionalities and workflows, resulting in a tool that was intuitive, aligned with clinical realities, and embraced by its users.

The project also benefited from a structured, phased implementation with strong project management. Clear milestones allowed for effective resource allocation and continuous monitoring, enabling timely adaptation and preventing major delays. Capacity building was another core strength: the integration of digital literacy training empowered participating clinicians to engage meaningfully with the technology and positioned them for future eHealth initiatives. Importantly, the platform was built with rigorous attention to data protection, adhering to recognized standards of privacy and security—an essential factor in maintaining trust and ethical compliance in healthcare settings. Finally, the initiative represented a pioneering effort in the West African context, offering a novel, contextually adapted solution that demonstrates the feasibility of digitalizing multidisciplinary care even in resource-limited environments.

5. Limitations

Notwithstanding its achievements, the project has several limitations. The current evaluation is primarily based on short-term, process-level indicators. While early feedback and usage metrics are promising, the impact on clinical outcomes—such as time to treatment initiation, survival, or recurrence—remains to be demonstrated. Moreover, the pilot was conducted in a limited number of facilities with relatively favorable conditions, which may not reflect the realities of more remote or under-resourced regions. This raises questions about the generalizability of findings and the feasibility of broader rollout without additional infrastructural support.

Another limitation lies in the potential for response bias. Feedback was predominantly gathered from participants directly involved in the project, some of whom may have had a vested interest in its success. While efforts were made to encourage candid responses, less favorable opinions may have been underrepresented. In addition, although the system functioned smoothly during the funded phase, sustainability beyond the project's timeline remains uncertain. Long-term maintenance, software updates, and support infrastructure have not yet been fully secured.

The study design also lacked a control group, precluding formal comparative analysis. Improvements were observed anecdotally and through pre/post observations, but without a rigorous counterfactual, attributing effects solely to the in-

tervention is challenging. Finally, while digitalization brings clear benefits, it also relies on stable internet connections and technical capacity, which may limit its scalability in regions without such infrastructure.

6. Conclusions

This project illustrates the potential of digital health innovation to strengthen cancer care coordination in low-resource settings. By introducing a secure and context-adapted platform for virtual multidisciplinary cancer meetings, the initiative succeeded in improving collaboration among specialists, enhancing efficiency in clinical decision-making, and promoting equitable access to expert consultation. The positive reception from healthcare professionals and the smooth execution of the pilot highlight both the feasibility and the value of such interventions when grounded in local needs and supported by robust training and planning.

Looking ahead, sustaining the platform and expanding its reach will require strategic partnerships, institutional integration, and ongoing evaluation of clinical impact. Nevertheless, the Senegalese experience offers an important model for other countries facing similar constraints, affirming that with the right design and support, digital tools can meaningfully enhance care delivery and contribute to more responsive and inclusive health systems.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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