Health Service Integration: A Situation Analysis Report

May 2025

Background and Historical Developments (Expanded Summary)

Uganda's approach to health service delivery has evolved and consolidated over five decades, underpinned by the principles of Primary Health Care (PHC). In line with the 1978 Alma-Ata Declaration, Uganda embraced PHC as a strategy to achieve health for all, emphasizing universal access to essential services, equity, participation, prevention, and intersectoral collaboration. These principles addressed key challenges such as rural-urban disparities, over-reliance on costly curative care, and the need for community engagement and action on social determinants of health. However, the ambitious scope of comprehensive PHC faced significant financing constraints. This led to the adoption of Selective Primary Health Care (SPHC), which prioritized targeted, high-impact interventions for diseases with the greatest burden. The SPHC model, including GOBI-FFF (Growth monitoring, Oral rehydration, Breastfeeding, Immunization, Female education, Family planning, and Food supplementation), offered cost-effective ways to tackle childhood mortality. This approach also contributed to the rise of health economics as priority setting and resource allocation became essential [ref]. In the 1990s and early 2000s, programs under SPHC evolved into vertical structures often implemented as stand-alone entities. Global donors and development agencies favored this model, as it produced measurable outcomes that aligned with international priorities. However, the siloed nature of vertical programs increased transaction costs and inefficiencies. These challenges spurred calls for integration to reduce duplication and improve health system performance. The turn of the millennium brought new vertical priorities, particularly HIV, TB, and maternal health. These attracted large global health investments through initiatives like the Global Fund, PEPFAR, and the President's Malaria Initiative, further reinforcing parallel program structures and externally driven service models. The Millennium Development Goals (MDGs) declared in 2000 intensified this effect. While MDGs mobilized substantial global resources and political will, they promoted discrete, target-driven interventions with limited scope for systemic integration (1, 2). The SPHC and MDG eras had dual effects—significant reductions in disease burden but also fragmentation in national health systems. Vertical programming undermined the development of resilient, people-centered, integrated care. Many programs operated with separate infrastructure, reporting systems, and supply chains, diverting attention from comprehensive PHC. In response, reform efforts in the early 2000s focused on re-integrating health services. The Sector-Wide Approaches (SWAPs) aimed to unify planning and funding around a single national health strategy, enhancing country ownership and reducing donor fragmentation. The aid-effectiveness agenda—embodied in the Paris Declaration (2005) and Accra Agenda for Action (2008)—further emphasized alignment, harmonization, and mutual accountability. Although these reforms expanded the PHC platform at district and community levels, their momentum was slowed by the continued influence of vertical Global Health Initiatives. GHIs played an ambivalent role: they enabled integration by investing in infrastructure and service platforms, but also constrained it by maintaining disease-specific silos. In some cases, such as HIV programs, they became springboards for integrating NCD care into existing systems. As Uganda works toward Universal Health Coverage (UHC), aligning donor mechanisms with PHC priorities remains critical. The COVID-19 pandemic further tested integration. Emergency responses diverted attention and funding from routine services, and geopolitical shocks disrupted aid flows and supply chains. However, the pandemic also renewed recognition of the need for resilient, integrated health systems capable of absorbing shocks while maintaining essential services. In this context, Uganda's integration efforts are vital for building a more cohesive and sustainable health system responsive to evolving health needs and external pressures.

Primary healthcare forms the foundation of Uganda's healthcare system. Since the early 1990s, Uganda has progressively consolidated Primary Health Care (PHC) and integrated health care programs into its national health system through a combination of policy reforms, structural reorganizations, and strategic partnerships. It is typically the network of healthcare providers that form the frontline connection with individuals and communities seeking medical care and plays a crucial role in prevention, management of chronic conditions, and coordination of services. The concept of integrated care in PHC revolves around delivering seamless and coordinated services

that cross traditional boundaries between providers, sectors, and districts. The key developments include:

Health Policy and Governance Reforms

Since the early 1990s, Uganda has undertaken significant reforms to consolidate Primary Health Care (PHC) and enhance integrated healthcare delivery. Major policy shifts, particularly the 1999 National Health Policy and subsequent Health Sector Strategic Plans, guided decentralization, community participation, and integration of preventive, promotive, and curative health services. The Health Sector Strategic Plans (HSSP I-IV 2000–2016) operationalized these reforms by decentralizing health governance from the central government to districts and further down to Health Sub-Districts, improving local accountability and responsiveness. Policy on public private partnership to improve PHC and expand access was developed and capitalised with grants and greater collaboration with faith-based, private sector providers – a situation has sustained and expanded with time to address supply chains, workforce training among others.

Central to these reforms was a deliberate reallocation of resources towards PHC priorities, ensuring essential inputs such as drugs, vaccines, human resources, medical equipment, and health infrastructure were available at community and district levels. The abolition of user charges in public facilities significantly improved service utilization, particularly benefiting poorer and rural populations. This strategic shift contributed to equitable access and greater public reliance on both government and Public-Not-For-Profit (PNFP) health facilities.

Implementation through a Sector-Wide Approach (SWAp) further supported integration by coordinating donor funding around nationally defined health priorities, reducing fragmentation caused by vertical donor-funded initiatives. This facilitated the effective integration of disease-specific programs, including HIV/AIDS, tuberculosis, and malaria services, within comprehensive PHC platforms such as antenatal care, immunization, and family planning services. The expansion of Integrated Community Case Management (iCCM) and strengthened Village Health Teams (VHTs) provided community-level care, reflecting an integrated, bottom-up approach.

Enhanced funding, largely via external aid and budget support, improved system-wide capacities—including infrastructure, human resources, supply chains, and health information systems—key for sustaining integrated services. Collaboration with development partners and the private sector expanded coverage and boosted efficiency, reinforcing multisectoral partnerships fundamental to the integrated PHC agenda.

Global Health Initiatives (GHIs) have significantly supported health service integration by providing financial and technical resources, promoting integrated service delivery, shared infrastructure, pooled procurement, and patient-centered frameworks, thus enhancing efficiency and reducing government costs. However, GHIs also constrain integration by fostering fragmented funding streams, donor dependency, and vertical, disease-specific programs. Although effective individually, these disease-focused programs can create parallel systems and missed opportunities for holistic, population-wide benefits. Sustainability concerns arise due to reliance on external aid, highlighting the need for balanced approaches that strengthen integrated health systems while minimizing fragmentation and dependence on donor-driven agendas.

Fragmentation and Cross Programmatic Efficiency (CPE) Report

As Uganda restructure to address its UHC ambitions, the multiplicity of programs in health sector programming has drawn concern. Despite a strong foundation of integrated services and consolidation of PHC principles over the last four decades, a study done my WHO and MOH (2023) on cross programmatic efficiency and Uganda’s roadmap to UHC identified major waste in resources arising from failures to integrate health programs. Gaps in cross-programmatic efficiency remains a significant challenge, contributing to resource wastefulness and hindering progress towards universal health coverage (UHC). The study found that the major driver is the fragmentation of health programs, often exacerbated by donor-driven funding models, resulting in duplicated efforts, parallel structures, and competing incentives. This fragmentation manifests through numerous uncoordinated health programs, each with distinct governance and funding

mechanisms, leading to redundancies such as separate information systems, administrative units, human resource structures, and supply chains (3).

The CPE report indicates that donor dependency, while essential, often prioritizes isolated, disease-specific programs rather than integrated health system approaches, further fragmenting resources (4). Insufficient coordination across programs led to inefficiencies in resource allocation, procurement, and service delivery. Human resource challenges persist, with an unevenly distributed and overstretched workforce struggling to meet competing program demands.

Fragmented health information systems where found to impede effective monitoring, evaluation, and informed decision-making, while duplication in supply chains created procurement inefficiencies, storage challenges, and disrupted distribution of essential medicines.

While policy and legal frameworks to address these issues exist, the report shows that implementation remains inadequate. Strengthening leadership, governance, and coordination mechanisms was recommended to improve cross-programmatic efficiency, optimize resource utilization, and move Uganda closer to achieving UHC.

Objectives, Study Design and Methods

This study aim to establish the situation analysis on the state of program integration for health service delivery, along with stakeholder consultations, propose a workable framework to guide health service integration and a maturation metric to track the growth and maturity of service integration at different levels of the health system.

This was a mixed methods study design with a predominantly qualitative approach. The study was carried out in three phases as briefly elaborated here below.

Literature reviews with the main aim of identifying models and frameworks to identify the essential elements and drivers of healthcare integration at national and subnational levels.

Qualitative interviews with health system levels at national, district and facility levels to customise integration concepts and metrics to practicable realities. The interviews were also used to gauge the extent of healthcare integration from the perspective of national, district and facility levels.

Consultation with stakeholder groups to finalise the situation analysis and maturation metrics.

Phase 1: Desk View

Phase 1 study involved a comprehensive search and a scoping review to provide a summary of evidence with a focus on two main aims: 1) to identify operational definition of health care Integration that is nuanced and operationally relevant for varies levels and components of the health system; and 2 to analyse the common and distinguishing components in the model suitable to employ in the assessment of integration progress at various levels of the health system. A narrative review and synthesis approach was taken with the aim of identifying a suitable framework – a structured, overview, outline, or plan made up of numerous descriptive categories, such as elements, components or variables, and the relationships that are supposed to describe enablers of health service integration. Typically, frameworks may not give causal explanations; but describe empirical facts by putting them into a predetermined set of categories that are essential to understand a phenomenon like healthcare integration. The search followed and updated the work of Evans et al 2013 and Urionaguena (2023) (5) and (6). A search was conducted in March 2025 using Medline, and SciELO databases and supplemented by google Scholar and journal for key references. The the query included (“health care system” OR “primary care”) AND (“systems integration” OR “delivery health care, integrated” OR “integration” OR “integrated care”) AND (“type*” OR “dimension*“).

The review resulted into 17 models for integration after screening 142 potential abstracts on integration and reviewing in detail 23 papers that were more appropriate to the aim of the study. The model elements, context of use and extent of use of the model in the academic and program literature was used to assess the scale of applicability. Given the multidimensional nature of the frameworks identified, the effectiveness criterion was not useful for this task. As detailed in the

results section, the Sustainable integrated care model for multi-morbidity - popularly known as the ‘SELFIE model’, was adopted and customised to guide the rest of the analysis on integration in this study. Appendix 1 has a summary of the models that were evaluated.

Phase 2: Qualitative interviews

Phase 2 of the study focused on gathering insights from health sector leaders at national, district, and facility levels. At the national level, we conducted interviews with Ministry of Health (MOH) technical leads, including directors and commissioners, alongside development partners and civil society representatives. In total, 12 national-level interviews were completed, supplemented by a group consultation involving 22 civil society organization (CSO) leaders.

At sub-national levels, we interviewed 10 District Health Officers and hospital directors to explore integration within decentralized service delivery systems. Case-based questions were used to examine integration experiences across selected programs. The cases included: (1) IMCI and iCCM to represent close-to-community integration; (2) PMTCT and HIV services to capture vertical, chronic care programs; and (3) MCH and NCD services to represent platform-based and emerging integration, respectively.

The aim was to assess the extent of integration for each case and test the usefulness of a proposed integration maturity metric. Additionally, feedback from the MOH Technical Working Groups on Financing and Monitoring & Evaluation, as well as from the MOH Taskforce on Service Integration, was used to validate and contextualize findings—particularly those influenced by the MOH Permanent Secretary’s circular on integration following the U.S. Government’s stop-work order.

Phase 3: Stakeholder Consultations

(This is planned for the period of June 2025). The consultation will purpose to validate and provide a peer-based measure of integration status along with the adjustments needed to finalise the metric for assessing maturation measurement. As outline in the report on the maturation index this phase will adopt the self- assessment approach as used in the national Joint External Assessment (JEE) for IHR by drawing on participants perspective and experiences as possible (7). The assessment draws from shared experiences, sense-making and consensus of stakeholders with regard to the vital components for health service integration.

Findings

The findings section is organised along three main sections. The first part provides the conceptualization and development of the assessment tool for health services integration. The second part provides the assessment outcomes from applying the tool for selected health programs, while the last section provides integration enablers as synthesized from the literature and interviews.

Healthcare Integration and its Dimensions

From the literature review, 17 different frameworks were identified. Many of these had marked overlap especially with regard to the health systems building blocks. The variable components were mostly driven by the context and purpose that the integration framework was aiming to achieve(6, 8, 9).

Categorization was applied to the literature to frame key integration components critical for effective health service delivery. These integration components include functional, normative, interpersonal, organizational, and systemic integration. The structured table below provides more clarity on each health system integration component and relevant foundational references. It also underscores the many perspectives that integration entails.

Table XX Service Integration Components from the Reviewed Literature,

The categorization was aimed at identifying the main purpose or perspectives that drive integration efforts in the literature.

Differences among these frameworks largely stem from their varied emphases on specific integration components. For example, some frameworks emphasized clinical integration focusing on harmonized care pathways and guidelines, while others prioritized organizational or systemic integration through governance and policy alignment. Moreover, certain models placed greater emphasis on person-focused or population-based care, reflecting varied approaches in responding to health system goals and particular contexts.

In essence, although existing integration literature on frameworks broadly agree on critical components and objectives, differences exist in their prioritization of integration types and levels. These variations underline the necessity for context-specific customization of integration strategies, tailored to Uganda's healthcare settings, resources, and population health needs.

Given these multiple perspectives on health service integration, it was prudent to have a clear and stable way to approach the assessment of integration in Uganda. For this we selected one model – the SELFIE framework, and customised its components for our purpose.

Tool development to Assess Health Service Integration

We developed an integration assessment tool anchored in the customised SELFIE framework by Leijten et al (2018), using a Likert-style scale to measure the extent of integration across key system components. The goal was to assess integration using five standardized statements per component that represent progressive levels of integration from "not integrated" to "fully integrated." The tool development process was modelled on Mokkink et al (2006) (10)involved several steps:

Framework Alignment: We adapted core components of the SELFIE framework—including governance, service delivery, workforce, financing, health information systems, and supply chains and community engagement —into measurable assessment domains relevant to the local health system.

Progressive Anchoring: For each domain, we formulated five qualitative anchor statements representing a continuum of integration. The general principle that guided the construction of the anchoring statements was the stakeholder aspirations and expectations at full integration of the component in the Uganda setting. For example, ideal integration for the Policy and Governance component was associated with full mainstreaming of regulations, policies, plans and operational actions to support strong government ownership and clear mandates FOR service integration among partners at the national, district or facility levels. Scenarios were created to offer a range of realistic but progressive growth of the component and assigned scores as appropriate. The statement were identified from interviews as well as from literature concerned with assessing integration phenomenon (8, 9, 11). These statements were informed by existing literature on integration measurement, national policy documents, and preliminary key informant interviews. The statements (see appendix 2) were structured as below:

Level 1: No integration (fragmented, vertical, or standalone program components) Level 2: Minimal alignment or recognition of integration in planning or structure Level 3: Partial integration - e.g. with limited interoperability or shared processes Level 4: Strong alignment - e.g. with shared resources and joint governance Level 5: Full integration – e.g. with seamless coordination and unified service delivery

Likert Scale Structure: Each domain was scored on a five-point Likert-type scale (1 = Not Integrated, 5 = Fully Integrated), with respondents or assessors selecting the level that most closely matches their observation or experience. In proactive these statements will be adapted to the national, district and facility level as the basis for identifying local priorities and plans for deepening health service integration.

Content Validation: Draft scale items and anchor statements were presented to the National Advisory Committee for face-validity review. The full set of the tool will be subjected to a panel of health systems stakeholders including national experts and district- and facility-levels to ensure contextual relevance and face validity. Revisions will be made to enhance clarity, realism, and discrimination between levels as appropriate.

Framework Alignment

The SELFIE framework with the components as outline in the table below was adopted for the purpose of developing relevant tools that cover the domains. The framework has been used widely in Europe and LMICs to explore and design programs to support chronic care especially for the elderly and contexts with HIV, TB and NCDs. First published in 2018 and have over 250 references and applied to about 47 projects that were exploring or planning health service integration projects. The framework was adapted to the health system in Uganda's decentralised levels of healthcare provision before it was used to assess the status of integration. Table XX provides the main components and their descriptions.

Table XX Summary: SELFIE Framework for Health Service Integration as adapted to Uganda

Progressive Anchoring and Likert scaling

To assess extent of integration, the literate and interviews were used to identify key aspirations and expectations for full integration and assigned a range of scores from the scenario of no integration to full integration across each of the SELFIE components as a adapted to Uganda. The sub-sections below aim to outline the findings underlying the creation of the anchoring statements used in the assessment. The analysis used a service program (HIV, PMTCT, ICCM etc) as the subject of assessment or unit of analysis.

Service Delivery: Service delivery that is embedded in routine service platform, offering seamless care pathway without separate and parallel structure was the concept used to infer full integration. Service platforms for Maternal and Child Health services have enabled programs like PMTCT to achieve rapid scale-up and high impact (12, 13). Perspectives from the Interviews reflected the need to offer person-/family-centred care that minimise patient movements by leveraging routine services platforms such as OPD to offer integrated services. The contributing quotes from the interviews are:

“Two decades ago, 30 out of 100 mothers delivered babies who got HIV positive. Today, we get only 3 out of 100. …. These gains are attributed to increased access to HIV services that got integrated with maternal and child health services at all levels of care.” (MOH-Official)

"HIV patients with NCDs now receive care under a chronic care clinic rather than multiple clinics." (MOH Official)

"We want all services offered at one sitting; patients should not be moved around." (Hospital Manager)

The themes also captured the need to design and organise service delivery in a manner that achieves a “one-stop” service platform, coordinated referral systems, and proactive care planning that promote person-centred and continuity of care.

"During outreaches, we integrate HIV testing, TB screening, and child health activities." (Hospital Manager)

“Our EMR system cannot link a patient’s HIV treatment history with her pregnancy or her NCD diagnosis. She becomes three different patients in the system. That’s how patients fall through the cracks—we treat diseases, not people.”(Hospital Manager)

“We received a circular from MoH directing integration... We reorganized ART and OPD clinics to create a Chronic Care Clinic for all patients.” (Hospital Manager)

"Policy documents clearly support integration, but Divisions like TB and HIV still operate semi-independently." (MOH Official)

Policy and Governance Theme: Policy and governance theme captured categories vital for reinforcing and optimizing oversight and regulation by actions such as collaborative planning, budgeting, policies, and other tools that ensure strong national ownership, clear mandates and government-led coordination of programs. This was taken as the ideal scenario for full integration.

This theme also contained aspiration for structures – committees, groups and networks for addressing mutual accountability with government as the lead. Regional and national performance review meetings are examples of governance structures that have achieved scale-up from the centre to districts. Interviews especially from the MOH officials highlighted the scenario of “zero integration” where “Implementing partners”, “external actors” impose their own policies, plans, or guidelines. From the clients’ perspective, the protection of access rights for minorities, and fears that the service quality would decline -were rife especially given the freeze of HIV funding early in the year.

“When the partners left, we had to find ways to continue the services. We merged our HIV supervision with other routine programs. Instead of having five different teams, we now have one team that oversees the whole chronic care package.” (District Official)

“We’ve done plenty of strategic planning—Programs still submit budgets with their own M&E; plans, their own indicators. Integration starts with how we plan and fund programs.” (MOH Official)

The Workforce Theme: The framing for full integration for this theme entailed a workforce that is under a unified HR structure, policy and remuneration, preferably recruited by MOH (for public facilities) or by local private entities. The history of contract-staff for HIV programs, with special privileges and salaries is vital context to this theme. The mix of similar employees with different entitlements because of HIV funding can raise unfair emotions and affect performance of government employed group. Respondents provided a range of views to highlight enabling actions to support workforce capacity for integrated services.

"Staff attitudes and skill gaps remain a challenge… We pair ART-experienced with general clinicians to bridge gaps (….) CMEs every Tuesday are helping build cross-program skills." (Hospital Manager).

“The study finds various challenges when integrating HIV, ANC and PNC services - inadequate staff, gaps in knowledge […] limited space, shortage of critical supplies such as HIV test kits, drugs and gloves.”(Ahumuza et al 2016.)

“Single spine pay structures are more fair (…) but HIV programs have multiple often disparate salaries. This is unfair (…) different pay for similar works for clinicians”. (Hospitals Manager)

“In some facilities, the data person is also the nursing assistant. You can’t expect integration when one person is expected to fill five registers and also vaccinate children. We need proper staffing for HIS to work.” (MOH Official)

Financing theme: Full integration for the financing theme envisioned sustainable domestic financing, that uses on-budget arrangements and that minimise external dependency. On the other extreme, lack of integration was viewed as funding that is wholly dependent on external partners, entirely off-budget and managed outside the national or district systems. A Single source/basket was also preferred instead of the current multiplicity of fund-holders. Literature and interviews with facility managers highlighted the role of MOH in creating and sustaining siloed-based funding, a practice that need central level mitigation.

" PHC budget – is small (…) but can support integration (…) can be reallocated to stationery and training costs.(…) but donor financing remains vertical... not integrated at the centre (MOH level).”(MOH Official)

“Each program wants to keep its brand, its power. If I am head of malaria, I want to show malaria results, not mix with NCD basket. Once funds are pooled, accountability becomes collective, and that’s threatening to some departments.” (MOH Official)

“The ministry disburses their money according to their programs. Malaria will send their money as for malaria, EPI as for EPI, HIV as money for HIV. When it goes down to the DHO, the funds are tied to specific outputs. You can’t just shift money from HIV to malaria or to maternal health. This is the biggest barrier to integration” (HDP Official).

“Each donor project — like Global Fund or GAVI — comes with its own budgeting system, implementation guidelines, and performance indicators. Even if you want to integrate services at the facility level, the budgets and planning are too rigid.” (MOH Official)

Supply Chain Management: For this theme full integration was framed as unified and nationally-led procurement, warehousing, and distribution and logistics systems. Logistics handled by National Medical Stores and Joint Medical Stores were emblematic of a unified system, although specialist in logistics preferred more outlets to mitigate against the risk of over reliance on two agencies (14). On the other extreme, commodities procured and distributed predominantly through partner-managed logistic systems that are outside the national one, was viewed as not integrated. Other views captured the effects of the none cooperation norms in medicine logistics management system.

“Sometimes HIV commodities are overflowing while we are out of paracetamol. The logistics people say they can’t use the HIV budget to acquire other items. That’s the problem with vertical program — it ends at the storeroom.” (Hospital Manager)

“Forecasting is done per program. I sit in a TB meeting, then in a meeting for vaccines, and another for ARVs. There’s no combined quantification process, yet we’re serving the same people in the same clinic.” (District Manager)

“ART commodities are pushed separately from other drugs. Vaccines have their own cold chain and distribution schedules. So even if a facility is integrated in service delivery, the logistics people still handle things separately.” (MOH Official)

“We receive orders through different portals. HIV supplies come through one system, essential medicines through another. It increases work and causes confusion, especially when deliveries come at their own time.” (Hospital Manager)

"Stock out of critical supplies for integrated services was a challenge across all the health facilities and districts. Some of the supplies that were often out of stock were; HIV test kits, gloves and drugs.” (15)

“MOH is considering a plan to consolidate all infant HIV testing to one lab in Kampala that has hug capacity and an automated system – that other testing labs do not have.” (MOH-Official)

HMIS Theme: Respondents’ views for this theme were consistently emphasizing the need to use a unified data capture and reporting system that is shared across the partners- partly to reduce the burden for data capture on clinicians and harmonise the databases. The vision for full integration engendered a need to reduce to a minimum the duplicative nature of records – both paper and electronic ones, that a multitude of partners have taken to the service delivery platforms and clinics. For instance separate registers for HIV, TB, maternal health, and NCDs remain the norm while serving same patient. A national roll-out of EMR for the public facilities was in play but was moving at a slow pace.

“In most facilities, a single client ends up being registered in several books. If she is HIV-positive and pregnant, she is in the ANC register, the HIV register, the nutrition register, and probably the NCD register if she has hypertension. This creates unnecessary work, delays care and leads to inconsistencies in data. one patient appears as 3-4 visits.” (MoH Official)

“The EMR system we use is for HIV only. You cannot enter maternal health data, or hypertension readings. So even in the same clinic, we’re using EMR for one program, but writing paper notes for all the others. It defeats the purpose of integration”. (Hospital Manager)

“I asked one facility why they didn’t record TB clients in the EMR, and the answer was simple: ‘It’s not configured for that.’ So, the nurse prints out ART reports digitally and then handwrites TB numbers into a separate register” (HDP official)

“Every partner wants visibility. They (donors) say they are here to support the MoH, but they want their own indicators and their reports. That’s how fragmentation is maintained—through reporting lines. It’s not always about service delivery, it’s about control.” (HDP official)

Community engagement: For this theme, the ideal scenario for full integration was engagement with communities that are planned, led and coordinated by the central or local governments and meaningfully involving community-level leaders and CHWs. The other extreme were engagements that were planned, led and implemented with little alignment to the legitimate government structures. The context here had to do with community level programs that are parachuted to the communities directly with little local ownership by the governance structures, and the restrictive laws that curb access to health care for minorities. Community engagement provide the mechanism and opportunities for citizens and service beneficiaries to voice opinions, share concerns, and participate in decision-making processes at the local level. This theme also benefited from CSO consultative meeting soon after the HIV funding freeze.

“this integration is coming when the civil society space is shrinking. How is this (integration) plan going to encourage CSOs to remain effective (…) to support HIV care for all affected groups? The legal framework is now criminalizing key populations and making them hid from services. Stigma need to be addressed” (CSO Leader),

It is vital to go beyond community engagement and recognise community leadership (…) community-led solutions to their problems. (…) health workers can come to support these plans. But communities ought to be in the drivers’ seat. (HDP Official),

This integration is talking about service to the individual. How about the family and the communities. Also other sectors to get involved (…) integration should also link to social protection and preventing HIV and other diseases (CSO Leader)

What plans are there to make health workers competent in sign language to community to those that can not speak? Where are the rumps to ease the access by disabled persons? (CSO Leader)

Tool Validation

The table below provides the statements used for scoring across three of the seven components in the modified SELPHI framework. The full set of the statements used for the scoring is provided in the Integration maturation matrices report that is accompanying this report. The tool will be subjected to validation before its adopted for use for the purpose of tracking integration maturaty overtime.

Extent of Service Integration

The statements developed were used to score the extent of integration for the six selected health programs. This assessment was undertaken by the research team partly to test the performance of the developed tool as well as to provide the extent of integration. This passement was buttressed by the qualitative interviews especially those from experts in these

Despite this attempt, the assessment of integration was replete with challenges and required on several innovations. The challenges arose due to the asynchronous time space for the findings in the literature – findings from 2000s may not apply in 2025 and shorter time cut-offs for literature had poor yield for our purpose. Additional challenges were related to the dynamic and rapid status changes in the nature of integration since the stop-work orders from US Govt and together with the activities to operationalise the MOH circular that called for urgent integrations actions to stabilise the affected services especially HIV treatment. Likewise, the interviews and stakeholder consultations for this task order could not cover all the programmatic areas and health system levels would contribute to a rigorous assessment of national-wide integration status. To the extent of these limitation, our assessment of integration has some imperfections.

Across the six health programs taken as case studies for assessing the integration, figure XX above provides the summary of the extent of integration.

Figure XX: Extent of Integration for a Selected set of Health Care Programs

Limited integration was observed for HIV/AID and PMTCT programs. MCH and IMCI posted higher levels of integration. Across the selected programs, full or close to full integration was observed for

Policy and Governance component in 4 out of 6 programs. Financing was the least integration and posted low scores in 3 out of 6 programs. Service Delivery and HMIS components both posted moderate integration scores in 4 out of 6 program areas. The enablers for service integration in the next section provide the narrative and explanation that were gleaned from the interview and literature review.

Significant progress in health service integration across multiple system components has been made over the years. Integration has been a core feature of national health strategies and plans for decades, with reforms consistently emphasizing unified service delivery. Governance structures have embraced collaboration through multi-agency and stakeholder participation, enabling a more coherent and inclusive decision-making process.

Community health strategies have also played a pivotal role. Village Health Teams (VHTs), community health workers (CHWs), and integrated community case management (iCCM) have been institutionalized through national programs like Child Health Days, ensuring integrated care at the community level. Facility-based integration has advanced through models like integrated chronic care clinics that manage HIV alongside non-communicable diseases (NCDs).

Immunization services have been successfully integrated into the national Expanded Program on Immunization (EPI), while task shifting and the training of multi-skilled cadres such as comprehensive nurses have enhanced workforce flexibility. Uganda's health information systems (HMIS) have also advanced, with DHIS2 integration and a national digitization strategy promoting data interoperability.

Further progress is seen in logistics and supply chains, with centralized procurement through NMS and JMS, and in financing reforms that prioritize aid-effectiveness, donor alignment, performance-based budgeting, and integration into sector-wide programming frameworks

The analysis identifies various health system integration enablers that share core concepts yet differ in emphasis and scope. Commonalities across the literature on integration include a clear focus on improving coordination and continuity of care, promoting interprofessional collaboration, enhancing patient-centeredness, and aligning health policies and governance structures. Most frameworks recognize similar core integration dimensions such as functional, clinical, professional, organizational, and systemic integration, underlining their universal importance in effective care delivery.

Narrative Synthesis: Enablers for Service Integration

To identify the enablers of health service integration, a narrative synthesis was undertaken. Information was drawn from the interviews and literature review conduced for this this task. The synthesis followed the deductive approach using the categories in the adopted integration framework. The figure below provides a summary of the main themes and the frequency of the sub-categories. The this section provides a general narrative of the themes aimed at identifying the drivers for health service integration to underpin the service integration framework for Uganda.

Figure XX Thematic Categories of enablers for Integration from the Integration literature

Service Delivery Theme

Effective service delivery theme and sub-themes were categories across micro, meso and macro levels to provide for a segmented assessment at the frontline and at the support systems are district and national levels respectively. Integration depends on at multiple health system levels—each requiring targeted enablers and interventions.

At the micro-level, emphasis is placed on patient empowerment and engagement through expert patient initiatives and peer support groups, strengthening individual self-care and chronic disease management capabilities. Additionally, micro-level service integration involves multidisciplinary case management, continuity of chronic care, and clear clinical and referral guidelines, enhancing patient-centeredness and data mobility to streamline care pathways. These actions facilitate horizontally integrated services, ensuring comprehensive care under one roof, while providing

structured access to specialists through tailored chronic care plans and robust referral protocols.

At the meso-level, quality improvement and sustainability mechanisms become central enablers. Implementing quality indicators (QIs), data analytics, and adaptive learning practices enhances responsiveness and care effectiveness. Organizational management enablers such as process mapping, redesign of care pathways, and care navigation support can optimize service delivery processes, reducing fragmentation and improving patient experiences.

At the macro-level, enablers include the development of multipurpose service delivery platforms and robust care networks supported by formal partnerships and bundled healthcare policies. Clear referral protocols and memoranda of understanding (MOUs) can help underpin collaborative actions across sectors, levels of care and public private partnerships. For example, The AIDS Care Organization (TASO) illustrate the journey of a local NGO was able to integrate health services using the palliative care platform initiated to support people living with HIV. By addressing systemic redundancies and fostering direct interdependencies, macro-level integration can involve coordinated multisectoral actions to address broader determinants of health, thereby ensuring comprehensive and sustainable health improvements. Collectively, these enablers underscore a systemic approach to integrated service delivery, aiming to achieve coordinated, continuous, and high-quality care across diverse healthcare settings.

Text Box: Factors driving comprehensive integration at TASO's service delivery platforms.

Sources (16, 17)

For TASO, task shifting and task sharing played a significant role, with nurses, midwives, and other healthcare workers trained to provide essential PMTCT services, including HIV testing, ART administration, and follow-up care, reducing the burden on specialized doctors(18). Additionally, community health workers (CHWs) are engaged to promote PMTCT in communities, conducting outreach activities such as encouraging HIV testing, supporting ART adherence, and ensuring that women return for follow-up visits, particularly in remote and hard-to-reach areas. To further expand access, private healthcare providers, including clinics and pharmacies, have been encouraged to offer PMTCT services alongside general maternity care, ensuring broader coverage outside the public sector. The strengthening of health systems and infrastructure is also crucial, with the government providing essential materials like ART drugs, HIV test kits, and training resources, ensuring that both public and private facilities are equipped to offer comprehensive PMTCT services. These mechanisms have significantly improved access to PMTCT and contributed to better maternal and child health outcomes across the country.

Themes on Supply Chain

This theme raised many counts in the analysis but the main issues were mostly captured by the stock-shortage, procurement efficiency and budgets.

At the micro-level, enhancing the autonomy of facility managers to rapidly address stock shortages is crucial. Advocating for adequate medicine stocks and instituting data-driven analytics helps align service utilization closely with stock management. Reducing pilferage at the facility level safeguards essential resources, while promoting rational medicine use among clinicians—through targeted prescriber training—optimizes consumption and reduces waste.

At the meso-level, the main findings were about balancing risks associated with single versus multiple procurement agents to ensure stability and flexibility within the supply chain. Although integration community seek to reduce multiplicity, for supply chain it considered prudent to have a reasonable duplicity to mitigate reliance risks and avoid uninterrupted availability of essential medicines and supplies. Utilizing data analytics was said to help in proactively managing procurement risks and smoothing out potential disruptions. Improved planning, accurate forecasting of routine needs, and integrating multiple service requirements enhance supply chain responsiveness.

At the macro-level, strengthening collaborative partnerships, particularly between the Medical National Stores (MNS) and Joint Medical Stores (JMS), is fundamental. Leveraging private sector

capacities expands national medicine stock availability. Adjusting budget allocations to reflect accurate cost assessments, coupled with proactive management at the National Medical Stores (NMS), promotes effective medicine distribution. Health diplomacy further facilitates favorable international agreements and global compacts, ensuring sustainable, resilient medicine supply systems.

Policy and Governance Theme

The theme on policy, leadership and governance was also categories across the three levels as service delivery to highlight the role governance and leadership should play for integration across diverse yet interconnected levels of the health system.

At the micro-level, the primary enablers include clinical leadership and stewardship that facilitate decentralized decision-making, team-based management, and clinical governance practices. Empowered clinical leaders foster strong frontline accountability, supporting teams to make timely, patient-centered decisions, thus ensuring quality improvement and effective risk management at the point of care.

At the meso-level, governance enablers revolve around creating coordinated management structures and formalized collaboration mechanisms. Shared governance frameworks, regular multi-stakeholder forums, and accountability agreements facilitate clear roles, responsibilities, and communication among diverse organizations. Strengthening joint accountability enhances collective performance and strategic alignment, promoting coherence and reducing duplication in health service provision. Additionally, robust performance measurement and reporting systems at the meso-level support ongoing quality improvements and transparent decision-making.

At the macro-level, enablers include comprehensive policy frameworks, strategic leadership, and regulatory structures essential for system-wide integration. Central to macro-level governance are integrated health policies, clear regulatory guidelines, and alignment of financial incentives that encourage coordination across service delivery platforms. Effective partnerships with diverse sectors, sustained advocacy for integrated approaches, and active stakeholder engagement are critical. Macro-level governance actions underpin systemic accountability, cross-sector collaboration, and strategic oversight, ensuring the health system remains responsive, coherent, and effectively aligned to broader health goals. Collectively, these governance enablers reinforce leadership capacities and accountability mechanisms essential for sustainable and effective integration across the entire health system.

Community Engagement and Client/Family-centeredness

Enabling actions for this theme capture innovations to support the community health awareness, engagement with civic the space and innovation for community-based approach to health improvements.

At the micro-level, the primary enablers identified include a focus on empowering individuals, families, and communities by fostering health literacy and self-management. Key interventions include peer-to-peer support groups and tailored education programs that enhance illness recognition, health-seeking behaviors, and self-care capacity. A holistic assessment of person or family needs, alongside person/family-centred care plans, ensures continuity of chronic care, with active linkages to community health workers (CHWs), thus nurturing robust patient networks and peer support systems.

At the meso-level, findings show that care coordinators and navigators are vital for improving patient adherence and care continuity. They encourage the implementation of differentiated care delivery models that address diverse patient needs and conditions. Moreover, meso-level actions like co-designing healthcare programs directly with communities, nurturing community-led health initiatives, and expanding engagements among persons living with HIV/AIDS (PLWA), CHWs, and healthcare workers (HCWs), health to ensure inclusive, culturally-sensitive, and responsive care strategies.

At the macro-level, key actions include creating enabling legal frameworks and nurturing robust civil society organization (CSO) alliances, networks, and partnerships are vital. interventions at this level should aim to expand civic space, advocate for repealing restrictive laws impeding access to essential services, and enhance collaboration across diverse sectors. Broader integration with other development sectors can generate value if coordinated action on health determinants, reinforcing person-centred care delivery are incentivised. Together, these multi-level enablers support an integrated, holistic healthcare approach that prioritizes individual needs and active community involvement.

Health workforce Theme

This theme pulls together actions that were found from the literature and experiences of front-line managers with regard to the short-term roll-out of services integration following the MOH Circular in February 2025 as well from longstanding workforce challenges at all levels.

At the micro-level, the critical enabling sub-themes included ensuring appropriate staff numbers and an optimal skill mix, supported by focused training programs, robust recruitment, and retention strategies. Task-sharing and the adoption of supportive technologies were also identified as facilitators for staff engagement, enabling collective buy-in and co-design of integration reforms. Addressing workload, patient volumes, and adapting to new tasks – arising from integration necessitates role restructuring, along with active staff involvement and strategic redeployment. Findings also show that mid-level management if given more decision-space can plays a pivotal role, championing integration and quality improvement (QI) initiatives to sustain service quality along with integration reforms.

At the meso-level, managing integration reforms requires sensitivity in handling organizational dynamics, particularly regarding staff whose roles and contracts are impacted by aid cutback (e.g., absorption of contract health workers). Establishing a shared vision, clear purpose, and deliberate change management is said to foster organizational stability and staff morale. "Process hygiene" - emphasizing open dialogues, transparency, trust-building, and supportive work environments, also ensures successful integration efforts at the facility level.

At the macro-level, nurturing supportive and cooperative sector norms is essential. Structuring incentives to enable supportive governance frameworks, and consistently promoting transparency and trust-building dialogues should underpin workforce stability and task-sharing as envisaged with greater service integration reforms.

Theme of Financing Service Integration

At the heart of integration discussion and roll-out of Government guidance on service integration is the issue inadequate medicines and supplies. This theme provides captured many issues related to financing and budgets to overcome these perceived short-comings.

At the micro-level, findings capture calls for adequate financing for essential medicines, supplies, and associated spending to make integration feasible. Joint budgeting with fund-holders, linking consumption data to budget planning, and increasing financial resources was linked to solving the stock-out problem. Providing expanded decision-making autonomy was said to create responsive management and realistic quality improvement decisions. Many views called for adequate staff remuneration, encompassing both public and private sectors, as a way to foster staff retention and motivation to improve frontline service delivery.

At the meso-level, timely and sufficient financial flows to district health services and other care platforms are essential. Increasing the speed and volume of transfers ensures continuous service provision. Recommendations for pooled financing were to address complexities posed by a multitude of intermediaries acting as fund-holders. Additional actions to support on-budget financing models to simplify accountability and reduce reporting burdens, facilitating smoother resource management were frequent.

At the macro-level, establishing clear contractual arrangements and partnerships, particularly with private-not-for-profit (PNFP) and for-profit providers (FPP), would enhance resource pooling and

service capacity. Tackling budget politics through advocacy, transparency, and robust anti-corruption measures were also encouraged to mitigates resource misuse. Additionally, proactive health diplomacy – to negotiate favorable terms for donor aid, manage external aid transitions, and effectively navigate the politics of interest groups – especially for chronic care programs was aid to help ensure sustainable health financing.

Policy and Practice Implications

The concept of service platforms is essential in analyzing the costs of integrating health services, as it helps identify shared resources, infrastructure, and operational efficiencies that influence overall expenditure. Service platforms refer to the healthcare delivery structures where various services are provided, such as primary healthcare centers, maternal and child health clinics, hospitals, and community health systems. By leveraging these platforms, integration typically aims to improve efficiency while managing costs.

At the core of this is framework is the identification of the service platforms upon which the service delivery sits. Watkins et al (2028) defines the platform as a fixed resource on which a range of healthcare services depend, like hospitals, GP clinics or community outreach sites. This relates to service delivery channels that collectively make up the organizational components of the care-holding sub-system (19). From this perspective health service integration involves using existing service platforms to offer additional healthcare services. Examples of service platforms include the following:

Primary healthcare centers for outpatient and general healthcare services.

Maternal and child health clinics where antenatal, postnatal, immunization, and PMTCT services are provided.

Community health systems that deliver home-based care, counseling, and follow-ups.

The cost structures within these platforms has been used to support planning, budget allocation and estimating the financial requirements for integration(20).

Although few programs have looked at the costs of integration in Uganda setting, assessing shared costs and incremental costs of health service integration has highlighted the need to plan for both shared and incremental costs (21). Shared costs refers to overhead expenses such as facility maintenance, administrative staff salaries, and IT systems, which remain constant even after integration. Where spare capacity exist in among these elements, integration is more likely to proceed with less incremental costs.

Incremental costs of service integration

Incremental costs are like to arise from hiring specialized personnel (e.g., HIV counselors in maternal clinics); procuring new medical supplies (e.g., HIV test kits, ART drugs) and upgrading health information systems to support integrated service delivery. For instance, integrating HIV services into maternal health clinics may require additional testing equipment, staff training, and ART medication, leading to increased costs. Ideally, cost-effective analyses are used to determine whether integrating services within existing platforms is more efficient than running standalone programs but in practice, few such studies are found for Uganda and the region (22). The study by Babigumira (2011) found pharmacy refill program was less costly comparted to the standard of care (US$ 520 vs. 655 annually, respectively)(23).

Cost efficiencies and cost-saving opportunities are likely to arise from integration that lead to large economies of scale – i.e. where shared infrastructure, staff, and administrative systems reduce the cost per patient by spreading fixed costs over a larger number of services. Task shifting - training nurses and community health workers (CHWs) to deliver integrated services has helped reduce labor costs by reducing reliance on highly specialized staff (22). Likewise, bulk procurement can engender savings such as negotiated better prices for medicines and medical supplies due to larger purchasing volumes.

However, long-term sustainability requires ongoing investments in supply chain management to ensuring continuous availability of essential commodities. Costs of monitoring tracking service improvements and cost-effectiveness can substantial. In situations where service platforms where over-extended beyond their capacity, the literature about identified differentiated service models (DSMs) – low costs service platforms such as pharmacies, drug-shops and community distribution in attempts to move services aware from the more costly platforms such as hospitals. The study by Guthrie et al (2022) found cost saving arising from differentiated services – adopting service platforms that decongest the hospitals for HIV care in Uganda (24). The table below indicates the average annual costs of providing care at low-cost service platforms. Overall the main costs drivers were ART medications and laboratory costs – 74 and 9 percent respectively, implying that variable costs remain significant while overhead (staff and admin) costs are reduced (to about $9.66–$16.43 per client per year).

Table xx Annual average cost per client for service delivery model (US$ 2018 prices)

Source is (24)

References

1. Wagstaff A. The Millennium Development Goals for health: rising to the challenges: World Bank Publications; 2004.

2. Abdin M. Progressing from MDGs towards SDGs. Progressing from MDGs Towards SDGs (December 12, 2015). 2015.

3. Rodríguez DC, Balaji LN, Chamdimba E, Kafumba J, Koon AD, Mazalale J, et al. Political economy analysis of subnational health management in Kenya, Malawi and Uganda. Health Policy and Planning. 2023;38(5):631-47.

4. WHO. Uganda cross-programmatic efficiency analysis - Policy Brief. 2024.

5. Evans JM, Baker RG, Berta W, Jan B. The Evolution Of Integrated Health Care Strategies. Annual Review of Health Care Management: Revisiting The Evolution of Health Systems Organization. Advances in Health Care Management. 15: Emerald Group Publishing Limited; 2014. p. 125-61.

6. Urionagüena A, Piquer-Martinez C, Gastelurrutia MÁ, Benrimoj SI, Garcia-Cardenas V, Fernandez-Llimos F, et al. Community pharmacy and primary health care - Types of integration and their applicability: A narrative review. Research in Social and Administrative Pharmacy. 2023;19(3):414-31.

7. Bell E, Tappero JW, Ijaz K, Bartee M, Fernandez J, Burris H, et al. Joint External Evaluation-Development and Scale-Up of Global Multisectoral Health Capacity Evaluation Process. Emerg Infect Dis. 2017;23(13):S33-9.

8. Valentijn PP, Schepman SM, Opheij W, Bruijnzeels MA. Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. International journal of integrated care. 2013;13:e010.

9. McVicar KL, Ivanitskaya LV, Bradley DW, Montero JT. Primary care and public health collaboration reports: a qualitative review of integration aims, participants, and success determinants. Population Health Management. 2019;22(5):422-32.

10. Mokkink LB, Terwee CB, Knol DL, Stratford PW, Alonso J, Patrick DL, et al. Protocol of the COSMIN study: COnsensus-based Standards for the selection of health Measurement INstruments. BMC Medical Research Methodology. 2006;6(1):2.

11. Atun R, de Jongh T, Secci F, Ohiri K, Adeyi O. Integration of targeted health interventions into health systems: a conceptual framework for analysis. Health policy and planning. 2010;25(2):104-11.

12. Kiragu K, Collins L, Von Zinkernagel D, Mushavi A. Integrating PMTCT into maternal, newborn, and child health and related services: experiences from the global plan priority countries. JAIDS Journal of Acquired Immune Deficiency Syndromes. 2017;75:S36-S42.

13. Chi BH, Bolton-Moore C, Holmes CB. Prevention of mother-to-child HIV transmission within the continuum of maternal, newborn, and child health services. Current Opinion in HIV and AIDS. 2013;8(5):498-503.

14. Bornbusch A, Bates J. Multiplicity in public health supply systems: a learning agenda. Global Health: Science and Practice. 2013;1(2):154-9.

15. Ahumuza SE, Rujumba J, Nkoyooyo A, Byaruhanga R, Wanyenze RK. Challenges encountered in providing integrated HIV, antenatal and postnatal care services: a case study of Katakwi and Mubende districts in Uganda. Reproductive health. 2016;13:1-9.

16. Vu L, Waliggo S, Zieman B, Jani N, Buzaalirwa L, Okoboi S, et al. Annual cost of antiretroviral therapy among three service delivery models in Uganda. Journal of the International AIDS Society. 2016;19:20840.

17. TASO. The AIDS Support Organization (TASO) Annual Report 2015. TASO Head 0ffice, Kampala Uganda 2015.

18. Mukose AD, Bastiaens H, Makumbi F, Buregyeya E, Naigino R, Musinguzi J, et al. Challenges and commonly used countermeasures in the implementation of lifelong antiretroviral therapy for PMTCT in Central Uganda: Health providers' perspective. Plos one. 2023;18(1):e0280893.

19. Watkins DA, Jamison DT, Mills T, Atun T, Danforth K, Glassman A, et al. Universal health coverage and essential packages of care. 2018.

20. Morton A, Thomas R, Smith PC. Decision rules for allocation of finances to health systems strengthening. Journal of Health Economics. 2016;49:97-108.

21. Obure CD, Guinness L, Sweeney S, Vassall A, Initiative I. Does integration of HIV and SRH services achieve economies of scale and scope in practice? A cost function analysis of the Integra Initiative. Sexually transmitted infections. 2016;92(2):130-4.

22. Seidman G, Atun R. Does task shifting yield cost savings and improve efficiency for health systems? A systematic review of evidence from low-income and middle-income countries. Human resources for health. 2017;15:1-13.

23. Babigumira JB, Castelnuovo B, Stergachis A, Kiragga A, Shaefer P, Lamorde M, et al. Cost effectiveness of a pharmacy-only refill program in a large urban HIV/AIDS clinic in Uganda. Plos one. 2011;6(3):e18193.

24. Guthrie T, Muheki C, Rosen S, Kanoowe S, Lagony S, Greener R, et al. Similar costs and outcomes for differentiated service delivery models for HIV treatment in Uganda. BMC Health Services Research. 2022;22(1):1315.

25. WHO. Framework on integrated, people-centred health services. Geneva: World Health Organization. 2016;2019.

26. Nuño R, Coleman K, Bengoa R, Sauto R. Integrated care for chronic conditions: the contribution of the ICCC Framework. Health policy. 2012;105(1):55-64.

27. Valentijn PP, Angus L, Boesveld I, Nurjono M, Ruwaard D, Vrijhoef H. Validating the Rainbow Model of Integrated Care Measurement Tool: results from three pilot studies in the Netherlands, Singapore and Australia. International Journal of Integrated Care. 2016;17(3):A91.

28. Ferrer L. Integrated health service delivery networks: concepts, policy options and road map for implementation in the Americas. International Journal of Integrated Care. 2013;13:e035.

29. Leijten FR, Struckmann V, van Ginneken E, Czypionka T, Kraus M, Reiss M, et al. The SELFIE framework for integrated care for multi-morbidity: development and description. Health policy. 2018;122(1):12-22.

Appendix 1: Summary of Integration Frameworks Considered for Adoption

Appendix-2 Draft Assessment Tool for Integration Maturity