K4D | Knowledge, evidence and learning for development

UKaid from the British people

Cross country findings on integration of HIV, TB and Malaria

Kim Ozano

18 July, 2022

Abbreviations and Acronyms

- ANC - Antenatal Care
- ART - Antiretroviral Therapy
- CCM - Country Coordinating Mechanism
- CHW - Community Health Workers
- DHIS - District Health Information System
- DRC - Democratic Republic of Congo
- eIDSR - Electronic Integrated Disease Surveillance and Response System
- HF - Health Facility
- HFGC - Health Facility Governing Committees
- HIV - Human Immunodeficiency Virus
- HMIS - Health Management Information System
- HPAC - Health Policy Advisory Committee
- HRH - Human Resource for Health
- HSS – Health Systems Strengthening
- HW - Health Worker
- IDP - Internally Displaced Person
- IDSR - Integrated Disease Surveillance and Response System
- IT – Information Technology
- K4D – Knowledge, Evidence and Learning for Development (K4D) Programme
- LMU - Logistics Management Unit
- M&E - Monitoring and Evaluation
- MoH - Ministry of Health
- MSD - Medical Stores Department
- NCD - Non-Communicable Diseases
- NGO - Non-Governmental Organisation
- OPD - Outpatient Department
- PBF - Performance-Based Financing
- PHC – Primary Health Care
- PLHIV - People Living with HIV
- PMTCT - Prevention of Mother-to-Child Transmission
- RMNCAH - Reproductive Maternal, Newborn, Child and Adolescent Health
- RSSH - Resilient and Sustainable Systems for Health
- STI - Sexually Transmitted Infection
- SWAP - Sector Wide Appraoches
- TB - Tuberculosis
- UHC – Universal Health Care
- UNDP - United Nations Development Programme
- UNICEF - United Nations International Children's Emergency Fund
- USAID - United States Agency for International Development

Structure and purpose of the workshop

- Presenting an overview of findings from across Knowledge, Evidence and Learning for Development (K4D) Programme and BACKUP reports for six countries – looking at the Health Systems Strengthening (HSS) building blocks
- Reflecting on findings across the reports
- Discussing the implications for The Global Fund

References to integration and HSS

- Collaboration and coordination across health programmes
- Continuity of services between promotion, prevention, diagnosis and therapy, rehabilitation, and palliative care
- Person centered care
- Life stage triage at a single facility (paediatric, adult, maternal)
- Resilient and Sustainable Systems for Health (RSSH) investment framework
- Horizontal (systems strengthening): finance, IT, service provision, human resources, technology, leadership and governance
- Services delivered in bundles and by practitioners capable of providing several services
- Universal health care (UHC), Primary Health Care (PHC) and basic/minimum healthcare package

"Most participants understand that the integration of health services is related to the availability of several health services in a single gateway, where several services collaborate with each other and develop health promotion and disease prevention activities." (Mozambique)

K4D | Knowledge, evidence and learning for development

Lessons from Zimbabwe

- Efforts to make care more people-centred were more likely to succeed when linked to complimentary drivers for change such as **improving equity in health**, establishing the rights of citizens and addressing the challenges of chronic illness.
- Long-term commitment, sustained political will and leadership are necessary to enable changes to embed over time. This needs to be combined with an approach that values **bottom-up innovation within a top-down framework** in order to provide an enabling environment for changes that align governance and incentive structures.
- Participation and support across all stakeholders in health and other sectors (including policymakers, managers, professionals, community groups and service users) is vital for success since a system-wide approach is needed using **multiple policy instruments** simultaneously applied to the different levels of the health system (the macro, meso and micro levels).

Integration efforts

- Integration of TB, Malaria and HIV within child and maternal health service, family planning, sexually transmitted infections (STI), gender based programmes, nutrition and Non communicable diseases (NCDs) (all by different levels)
- Primary health care approach where a range of services are provided in one place (Zimbabwe)
- Basic health care packages that aim to integrate service delivery (Democratic Republic of Congo (DRC) and Mozambique)
- Joint planning, accounting, monitoring and programme reviews
- Joint training and supervision activities for laboratory, pharmacy, and service staff
- Co-location of antiretroviral therapy (ART), TB and reproductive maternal, newborn, child and adolescent health (RMNCAH)
- Multi-disease test devices in integrated laboratory networks
- Integration Information Systems bridging traditional and complementary medicine into mainstream health services (Zimbabwe)
- Integrating public and private services (Uganda)
- Integrated procurement, logistics and medicine supply systems

Governance, planning and finance

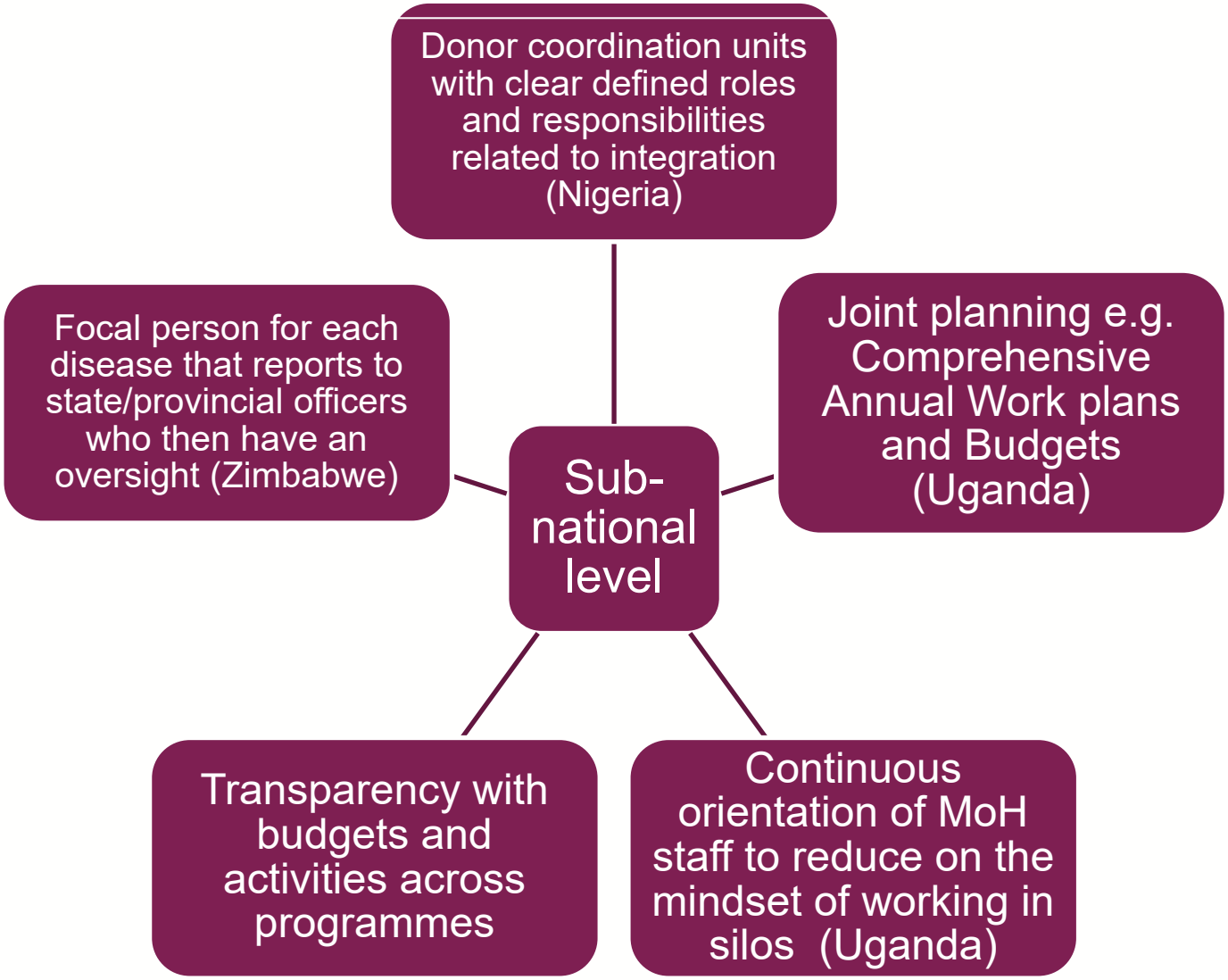
K4D

National Level

- Clear strategic planning and governance for an integrated, people centered approach to delivering health- led by Ministry of Health (MoH)
- Integration coordination body that brings together; information and logistical systems, funding, human resources for health (HRH), service delivery, laboratory etc.
- Better coordination across ministries and sectors (Finance, Planning, Gender etc.)
- Clear indicators and monitoring that reflects integration goals
- Coordination efforts; Health Policy Advisory Committee (HPAC), Country Coordinating Mechanism (CCM) , Technical working groups, Sector wide approaches (SWAP)
- Integrated financing strategies- flexible budgets, 'common baskets' with a single contract, 'basket pools'

"There is need for more advocacy at the national level about what needs to be integrated and how…designating a focal person at a more strategic level in the MoH to continue advancing and promoting the health service integration agenda across different programmes." (Uganda)

Sub-national level



K4D

Community Level

- Community health department mandated to support integrated public health services (Uganda)
- Community health committees and health centre committees seen as effective governance structures
- Social accountability mechanisms through education of health facility governing committees (HFGC) and village health committees to know the roles, rights and govern facilities (Uganda), scorecards (Mozambique)
- Grassroots monitoring meetings and monthly reviews, community participation bodies in the planning and implementation of activities - (DRC)
- Communities assess the performance of health facilities through scorecards (Mozambique)

Service Delivery

K4D

Service delivery

- Mostly ‘one stop shop’ approaches that address multiple services: maternal and child health care, family planning, STIs, gender based sexual violence and gender focused programmes, nutrition, integrated community management of childhood illness, nutrition and, such as cervical cancer
- Strong integration of TB/HIV, less for Malaria
- Large funding pots for HIV make them strong platforms for integration
- A new focus on integrating NCD with HIV/TB and Malaria
- Laboratory facilities were lacking with the laboratory network being vertical and associated with the hierarchy of health services

K4D

Non-communicable diseases and integration

- Not integrating NCDs was found to undermine malaria elimination (Mbunge et al., 2021a)
- Data from 2015 reveal that an estimated 33% of Persons living with HIV (PLHIV) are diagnosed with at least one key NCD, compared with an estimated 14% of HIV-negative persons (Smit et al., 2018)
- By 2035, adult PLHIV are forecasted to be nearly twice as likely to suffer from at least one key NCD and three times more likely to suffer from multiple key NCDs compared with HIV-negative persons (Smit et al., 2018)
- The identification of cost-effective chronic disease service delivery models to manage the dual burden of HIV and NCDs will be critical to maintain the quality of health services (Smit et al., 2018)
- NCD services will need to be expanded and integrated into HIV care programmes

K4D

Challenges to integration at service delivery level

- Lack of guidelines for service delivery staff
- Poor referral mechanisms
- Lack of funds for patients to access services and follow up referrals
- Patients are tested but do not receive results
- Inadequate buildings and infrastructure in Tanzania, as most low level facilities are just one room and highly congested with files. Limited physical space for client consultations, laboratories, stores, and more
- Inadequate running costs for facilities
- HIV/AIDS and TB programmes appeared to be delivered standalone in facilities
- Inequity in service support – one of the health facilities only one volunteer was serving the record office of the facility, the HIV/AIDS section had three visible staff entering records in a computer

K4D

Laboratory services

- Laboratory facilities were lacking with the laboratory network being vertical and associated with the hierarchy of health services
- As health facilities become complex, the complexity of clinical laboratories embedded in the same health facilities increases
- Specialised laboratories support integration as they are dedicated to the main endemic diseases, with emphasis on the immunology and phenotypology of HIV, TB, Infectious Diarrhoea, Microbiology, Intestinal Parasitology, Entomology, and Malaria, but also vaccine-preventable diseases (Measles, Rubella, Influenza, SARs-CoV-2)
- Tete Province in Mozambique has a higher level of health service utilisation in health facilities (HFs) with a laboratory
- Lack of local laboratory services imposes considerable financial hardship, with many unable to afford the costs of traveling to access such services (Tadeu & Geelhoed, 2016)
- DRC train phlebotomists to make paediatric specimen collection easier and to ensure that proper paediatric collection materials are available

Human Resources for Health (HRH)

Human Resources for Health

The shortage of health providers was reported as a major barrier to implement integrated care across all reports.

All countries reported an HRH crisis including HRH shortages, inequitable distribution, unmanageable workloads, and poor capacity.

Consequences of unmanageable workloads

- Delays in service
- Reduced quality of service delivery
- No time for prevention strategies
- Long lines for services
- Poor data documentation, treatment deferral and loss to follow up
- HIV testing misclassification errors -which can lead to failure to provide ART in the case of false-negatives or inappropriate ART initiation in the case of false-positives
- Staff anxiety and burnout
- Staff attrition, demotivation and migration

Ways to improve HRH for integration

- Targeted health worker retention approach – consider working with HRH observatories and other donors/sectors related to education and training of new doctors
- Harmonise community/health worker curricula and support training for integration approaches
- Provide critical on-the-job training (PATH) (Tanzania)
- Accelerated training of health technicians, privileges programmes for women, and humanisation of services in training curricula (Mozambique)
- Performance-based financing (PBF) in Mozambique and Nigeria found to be more effective in advancing PHC delivery than input financing alone
- PBF in Nigeria; funds transferred electronically to a facility's bank account, adding substantial autonomy to incentivise their staffs and improve health facilities
- Support health workers with adequate processes of work, clear roles and expectations, guidelines, opportunities to correct competency gaps, supportive feedback, fair wages, and a suitable work environment and incentives (Zimbabwe)
- Training delivery is not enough in isolation, it needs quality training materials, supervision, interactive and participatory methods that apply skills and a supportive infrastructure, financing and investment in HRH and facilities

Training, supervision and capacity strengthening

- Training materials for integration with core concepts of people centered, integrated care
- Provincial health services could deliver periodic training on the integration of health services in the area of Tuberculosis, HIV, Maternal and child health, Nutrition and Malaria and others such as NCDs, to improve services and teamwork (Mozambique)
- Design and implement a scalable training and mentoring programme (Zimbabwe)
- National Supportive Supervision Guidelines (Uganda)
- Supervisors monitor aspects of integration – testing for HIV during ANC (Uganda)
- Supervision tools that allow the integration of equity, the social determinants of health, gender equality and human rights in each policy and sectorial plan (DRC)
- Integrated supervision for quality improvement, verification of technical quality (Mozambique)
- Support skills in listening, communicating, facilitating discussions, and making presentations (Chung et al., 2020)
- Utilise change management principles, participatory organisation development approaches, and quality improvement methods (Chung et al., 2020)

Health information systems and data management

Integration of health data systems

"…For now, only TB and HIV services are fully integrated, and data can be captured through the system. Malaria data are collected and reported separately no integrated data is available…"
(National level participant-Tanzania)

Data systems and data collection/analysis activities

- National health management information system (HMIS), Integrated disease surveillance and response system (IDSR) and District health information system (DHIS) (DRC)
- e-IDSR system using mobile phone technology
- Large scale surveys (every five years) for observation of Malaria, Tuberculosis, HIV, and Maternal Health
- Private sector observatories, such as the rural environment observatory (Mozambique)
- Citizens' health observatory as a platform of activism (Mozambique)
- Census Service Availability and Readiness Assessment (SARA)
- National Health Observatory (Mozambique, DRC)
- Observatory of Health Human Resources (Mozambique, DRC)
- Community systems for surveillance and records of vital events, mortality, and births, at the national level
- Electronic patient management system (Zimbabwe)
- National HIV/AIDS Indicator and Impact Survey to improve data for planning of HIV prevention and treatment programmes (Nigeria)
- Multiple electronic TB data capture systems deployed at community and health facility levels

Solutions to data management challenges

- Comprehensive modernisation and strengthening of all aspects of monitoring and evaluation (M&E) within the MoH
- Strengthening the HMIS to improve data collection, reporting, and use for decision making at all levels of the health system
- Integrate and harmonise existing subsystems
- Strengthen the integration and interoperability of existing information systems, including the establishment of an electronic integrated disease surveillance and response system (eIDSR) linked to HMIS
- Improve data quality through: 1) supportive supervision and data quality assessments; 2) integration of a routine data verification system into HMIS and DHIS
- Secure significant government and external resources to maintain and strengthen detection, notification, reporting, and analysis of information
- Strengthen facility level capacity for disease surveillance through on the job training and supportive supervision

Monitoring and evaluation

Reports across countries alluded to a lack of monitoring and evaluation indicators solely designed to eliminate parallel systems

Nigeria – documents were developed with well-defined outcomes but were limited by the lack of monitoring and evaluation plans

Zimbabwe – institutions had M&E tools for the screening of HIV, Malaria, TB, cervical cancer, hypertension, diabetes mellitus and mental health conditions but some were not appropriate or relied on the disease specific registers and health information tools such as the **Outpatient Department** (OPD) register and other disease specific registers

Uganda – M&E data through joint health sector reviews with stakeholders- feed into the development of the annual health sector performance reports. Recommendations from the joint reviews are used to inform refinements to the disease specific programme annual work plans

Surveillance and screening

- Across all reports there was little evidence of integrated surveillance and screening activities
- Duplication of screening efforts, TB developed its own sample transport network when the HIV sample transport network was well established and resourced (Mozambique)
- Inadequate or vertically organised surveillance systems to track patients to ensure initiation and adherence to treatment (Zimbabwe)
- Recommended – electronic patient tracking system at 'One Stop Systems' or integrate the existing tracking system
- Surveillance systems are in place for Ebola. Though limited evidence of national level surveillance efforts for HIV, TB or malaria outside of partner funded or supported activities in DRC
- Community surveillance approaches are disease specific and lack integration
- Mobile applications for immediate notification can allow for contact-free, timely notification of cases; and community health care workers can monitor patient adherence and treatment response through telephone follow-up if home visits are not possible (Brooke et al., 2020)
- Field Epidemiology Training Programme (MZ-FELTP) is a post-graduate in-service training programme that aims to build epidemiological capacity in: public health surveillance, disease control and response to outbreaks, and public health emergencies (Mozambique)

Supply chain management and access to medicines

Challenges

- Missing medical commodities
- Regular stock-outs causes the referral process to fail. Paediatric anti-retroviral medications and anti-TB medications especially vulnerable
- Poor or unknown drug quality. First-line TB medicines across Africa, including DRC, found that close to 17% of them failed basic quality testing checking (Bate et al., 2013)
- Out of date medicines and a lack of diagnostic test kit
- Inadequate infrastructure for storage of health products
- Insufficient funding and staff to manage the supply chain
- Limited or no real-time assessment of stocks (cross country)
- Weaknesses in ordering systems, procurement and supply management
- Inadequate coordination amongst stakeholders within and outside the MoH
- Inadequate training, retention, and accountability of supply chain staff, including warehouse managers, logistics managers, quality assurance people, accountants, stockers, shippers, and transportation managers (Bravo et al., 2020)

Solutions

- USAID strengthens national health commodity supply chain systems (USAID, 2022)
- Global Fund integrating supply chains and pharmaceutical management through pooled procurement mechanisms
- Improved warehousing and storage enhancements
- UNICEF and UNDP support transportation through the provision of refrigerated trucks and double cabs that have facilitated effective supervision (UNDP, 2020c)
- The Pharmaceutical Sector Action Plan 2014–2020 Tanzania will institutionalise a Logistics Management Unit (LMU) supported by an e-LMIS and strengthen the Medical Stores Department (MSD)
- UNDP post-graduate course in pharmaceutical procurement and supply chain
- In Uganda pooled procurement, coordinated warehousing and cold chain systems
- Multi-month drug delivery and decentralised drug delivery programmes (DRC)
- Better regulation of drugs at private pharmacists, revisions of drug order forms at the facility level alongside training and supervision for quantification and requisition of medicines
- Redistribution of surplus commodities from facilities
- Tools to counter the growing threat of drug and insecticide resistance and use of the malaria vaccine in targeted hotspots

Integrated healthcare for equity

All reports alluded to the need to assess the current service delivery arrangements through the lens of at-risk populations and the marginalised, vulnerable, and poorest population groups. Factors of vulnerability and marginalised groups included; poverty, gender and age, (dis)ability, location, prisons, and more.

- Nigeria calls for a review of what constitutes vulnerable groups and to establish an order of prioritisation in health policies and plans. Health equity goals were to be integrated into health sector objectives.
- UHC 2020-2030, was one of the guiding principles for human and gender rights, and one which supported integrated service delivery aspirations.
- Mozambique's HIV Response Plan, which recognises the importance of the enabling environment that addresses human rights and gender issues for the HIV response (McLemore et al., 2021).
- Mozambique's TB response contains some elements that address human rights-related barriers to TB services, including addressing stigma and discrimination, as well as social and economic protection for people living with TB and their families (McLemore et al., 2021).

Community Engagement and peer support in integrated health care

The key points for community engagement were in case detection, service planning and implementation, accountability, monitoring and peer support networks for people affected by HIV, TB and Malaria. Strengthening the capacity of community groups and individuals was highlighted as a key action to improve their participation in delivering integrated health care. Potential areas of investment in community empowerment identified are:

- Community Health Workers: supported vertically and not gov. recognised
- Peer support interventions: especially for HIV, lacking in other programmes
- Social accountability mechanisms: scorecards, health committees, and more
- Community education and behaviour change in a classroom, social medial, including WhatsApp, radio and television, and advertisements such as posters and fliers

Community Health Workers

Community Health Workers (CHWs) are involved in health intervention campaigns such as vaccination, supplementation, deworming, or distribution of mosquito nets. CHWs have been a resource increasingly used.

- NGOs and vertical funds have vertically promoted the existence of a myriad of other figures who might be termed “community health workers”, employed and discontinued after programmes end- creates inefficiencies and duplication (Mozambique)
- Training of community mobilisers on the management of TB and TB/HIV co-infected individuals, household contact tracing and home visits, safe sputum collection and transportation, community mobilisation and awareness of TB, including action against stigma and discrimination, and advocacy targeting health-care providers and community leaders. (DRC)

Peer support groups and community education

In the case of prevention of mother-to-child transmission (PMTCT) HIV programming, community engagement (e.g. mentor mothers, male champions and community support groups) has been shown to increase early retention of pregnant women in care, which allows for more effective prevention measures (Chimwaza et al., 2021).

- In Mozambique, only in the HIV program with adolescent and youth health is the use of clients as health agents (activists).
- Studies have shown peer education groups to be effective in increasing uptake of HIV services among Adolescent Girls and Young Women. Yet, few have assessed their efficacy in Zimbabwe (Oberth et al., 2021).
- The education and communication programmes in DRC include teaching in a classroom, social medial, including WhatsApp, radio and television, and advertisements such as posters and fliers.
- In Zimbabwe, a study on TB programming during the pandemic recommends that the government engage in combined education and awareness campaigns on Covid-19 and TB (or on Covid-19 and HIV), with civic groups, media organisations, and community leaders.

Additional considerations for integration

- **Conflict** – Due to on-going conflict, there were 5.5 million Internally Displaced Persons (IDPs) in DRC, the majority of which live in camps (UNICEF, 2020). IDPs and refugees in conflict zones are affected by human rights barriers to HIV and TB services (The Global Fund, 2018).

- **Covid-19 and disease outbreaks** – Covid-19 appears to have exacerbated existing health inequities, with the most vulnerable, marginalised, and stigmatised being left behind.

- **Innovations, new technologies and risk management –** vector control strategies, tracking insecticide and drug resistance, screening for hotspots of transmission for targeted responses, keeping on top of genetic mutations and general control and mitigation strategies for HIV, Malaria and TB; all of which could be included within integration efforts.

In summary

- **Develop** an integration coordination body directed by a consultation framework between stakeholders and technical and financial partners
- **Establish** standards and guidelines
- **Define** integration and develop training for all levels to understand concepts of integration and people centered
- **Establish** pooled funding mechanisms and monitoring
- **Develop** and monitor Integration indicators
- **Strengthen** supply chain management, logistics and laboratories
- **Invest** in ensuring at-risk and vulnerable groups are reached and are supported financially and personally to access one stop shop services
- **Capacity building** of HWs, CHWs, Peers, community participation bodies, managers and providers, pharmacy workers care, and more
- **Strengthen** workspaces that promote integration and repair and renew materials
- **Establish** supervision that promotes integration practices
- **Joint** community education and communication initiatives to strengthen understanding of human and health rights for increased social accountability
- Take a **systems thinking** approach to developing and implementing strategic and operational plans

K4D | Knowledge, evidence and learning for development

UKaid from the British people

Ozano, K. (2022). Cross country study on integration of HIV, TB and Malaria in Uganda, Nigeria, Mozambique, DRC, Zimbabwe and Tanzania. K4D Helpdesk Report 1141 . Brighton, UK: Institute of Development Studies, DOI: 10.19088/K4D.2022.066
Access at:
https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/17469

www.ids.ac.uk/k4d

Follow us on Twitter @K4D_Info