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### INTRODUCTION

Dear Stakeholders,

We are delighted to present our inaugural Integrated Report. It is fitting that this report comes just as we commemorate two decades of unwavering commitment to strengthening health systems, serving communities and advancing research for the betterment of Africa.

Established in 2002 (and formally registered in 2004) IDI has had a remarkable journey, evolving from a visionary idea into a beacon of hope, innovation, and collaboration within the realm of health systems, services and research.

We invite you to explore some of our organization's recent history and its values, as well as our accomplishments, and aspirations at this point in our story.

While we have always had annual reports, this Integrated report is our first; enriching our normal reporting with deeper insights about our strategy, governance, financial and programmatic performance ,as well as our prospects. It reflects not just our core health systems strengthening focus but also the wider social and environmental context within which we operate.

This report is a token of appreciation to our stakeholders who have been integral to our journey and on whom we are depending on to push us to the next frontier.

We hope you will be inspired by its content.



#### **OUR VISION**

A healthy Africa, free from the burden of infectious diseases.



#### **OUR MISSION**

To strengthen health systems in Africa, with a strong emphasis on infectious diseases, through research and capacity development.





## MESSAGE FROM BOARD CHAIR



Professor Rev. Samuel Abimerech Luboga



We call upon all of you to help us to ensure that Africa is not left behind in exploiting data science tools to save lives I am honored to address you as the Board Chair of IDI in our inaugural Integrated Report for FY 2021/2022. As we reflect on the past year's achievements and challenges, as well as 20 years of dedicated service, I am filled with gratitude for the unwavering dedication and resilience of our incredible teams, partners, and supporters.

IDI work in support of the Uganda government was particularly notable in its contribution to the COVID 19 response, which is now at its tail end. IDI , through generous support from the US CDC and Resolve to Save Lives among other partners, made a significant contribution. This includes manning points of entry (POE), facility and field-based Infection Prevention and Control (IPC), health worker protection, support for quarantining and isolation, strengthening of central and regional Emergency Operations Centre (EOC) capacity, treatment units, support for development of new policy and legal instruments as well as data tools to back up response efforts, through to vaccination mobilization and roll-out. Following the IDI model, numerous capacity building, training and mentorship opportunities, as well as research projects (including local and regional implementation research and clinical trials) were built into these interventions, so that we do not lose the opportunity to learn and respond better to the next threat.

Our engagement with communities has deepened, particularly within underserved/hard to reach areas and priority populations who are both disproportionately at risk of infectious diseases and disadvantaged in accessing services. Through our locally appropriate health systems strengthening and service provision models, we have ensured that vulnerable populations receive the care and support they need.

Our research initiatives, have contributed crucial insights into the prevention, diagnosis, and treatment of disease. In FY 2021/22, it became even more evident to the entire world that data science and AI , are bound to bring profound changes in many aspects of our lives. At IDI, we are striving to start several initiatives to harness powerful data science tools that are changing the health sciences. We call upon all of you to help us to ensure that Africa is not left behind in exploiting data science tools to save lives.

Our commitment to capacity-building remains unwavering, as we believe that empowering individuals and communities is key to achieving lasting change. Our training programme continued to empower individuals from diverse backgrounds, and to expand our extensive alumni network that is making a positive impact in communities and organizations around the world.

None of this would have been possible without the support of our donors, partners, volunteers and supporters who share our vision of a healthier, more resilient world. We are deeply grateful for your trust and partnership and for being an integral part of the IDI family. Together, we are making a profound difference in the fight against infectious diseases for a better world.

## MESSAGE FROM EXECUTIVE DIRECTOR



**Dr. Andrew D. Kambugu**Sande McKinnell Executive Director



Our placement within a leading regional academic institution empowers us to catalyse research & innovations relevant to the sustainability of Africa.

It is with great pleasure, and a profound sense of accountability, that I invite you to this inaugural Annual Integrated Report for the Infectious Diseases Institute (IDI), at Makerere University, for the period FY2021/22. Our primary intention is to provide a more comprehensive, transparent, and forward-looking view of our institutional performance, including our ability to create sustainable value in a rapidly changing Africa.

The report represents a key milestone in our institutional journey, and coincides with 20-year celebrations whose theme is Celebrate: Inspire. Indeed, the alignment with international reporting standards emphasizes our commitment to excellence, one of our core values.

The launching of the report is timely. The global community faces existential threats including climate change. Unfortunately, while Africa and other regions in the global South barely contribute to the drivers of this threat, the region stands to bear the brunt of the anticipated climate change effects over the next few decades.

Africa must and has already embarked on adaptation measures to build resilience in the face of climates change-related challenges. Beyond adaptation, Africa has the opportunity to provide leadership, including sharing exemplar models for climate change mitigation.

Given the IDI's Africa-wide mandate, we seek to enhance Africa's contribution to sustainability. Our placement within a leading regional academic institution empowers us to catalyse research & innovations relevant to the sustainability of Africa.

The report highlights the Institute's current and planned initiatives towards a more sustainable world and compelling initiatives across our various programmes. As you read through this report, let us reflect on the collective power of individuals and organizations to tackle the world's most pressing challenges.

I extend my heartfelt gratitude to our dedicated team, our passionate volunteers, our generous donors, and our invaluable partners for their unwavering support.

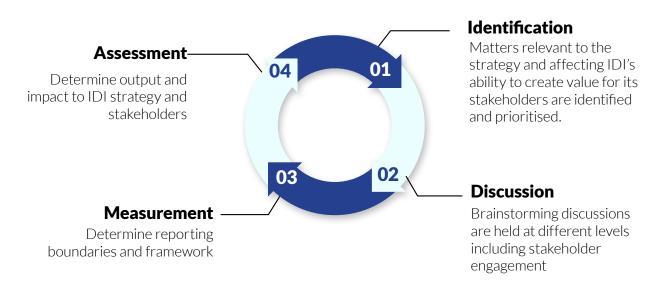
I would especially like to recognise Ms. Susan Lamunu Shereni's concerted leadership and mentorship of the editorial team which authored this inaugural report.

I thank you all for joining us on this ongoing journey towards a more sustainable and equitable future for Africa.

## BASIS OF INTEGRATED REPORTING AND MATERIALITY DETERMINATION

The IDI integrated report for FY 21/22 is an effort to respond to the global call for organizations to have a broader view of their obligations to society than their core missions as recently illustrated through ESG frameworks. Even though IDI is a non-profit, with social objectives forming the core of its mission and objectives, the report highlights our efforts to have broader social relevance beyond our core mission across our different programmes. This broadly reflects ESG principles. The report provides both financial and non-financial information that reflects our commitment to various stakeholders.

Further, the report illustrates our comprehensive approach to stakeholder value creation for the short and medium term, but with a focus on the long-term. We adopted a materiality determination process that is summarized in four processes: identification, discussion, measurement, and assessment. Stakeholders are engaged through all four stages to ensure value creation is well understood, documented and measured.



The main reporting frameworks used to prepare the IDI annual integrated report are:

- International Financial Reporting Standards (IFRS) standard used to prepare financial reports (<a href="https://www.ifrs.org/">https://www.ifrs.org/</a>)
- Global Reporting Initiatives (GRI) is a reference for IDI sustainability reporting (https://www.globalreporting.org/)
- United Nations Sustainability Development Goals (SDGs)- reference for IDI sustainability reporting (<a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a>)
- International Integrated Reporting issued by (IIRC)- Main reference for IDI integrated reporting (<a href="https://www.iasplus.com/en-gb/resources/global-organisations/iirc">https://www.iasplus.com/en-gb/resources/global-organisations/iirc</a>)
- COSO Framework IDI internal control environment is underpinned on the COSO framework. (<a href="https://www.coso.org/">https://www.coso.org/</a>)
- ISO 3700 guidance on governance- Reference for IDI Governance systems (https://committee.iso.org/ISO 37000 Governance)

### Our Strategy (2018-2023)

The IDI strategic plan for 2018-2023 was designed to reflect IDI's commitment to a broader network of stakeholders and policy frameworks, such as the UN Sustainable Development Goals (SDGs), Uganda National Development Plans, and Makerere University's Strategic Plan 2020/21 -2030/31. We consulted 10 categories of stakeholders and conducted an extensive environmental scan to generate strategic themes, which were reviewed and validated internally before they were approved by the Board. The following is a summary of the planning framework for the period 2018-2023.

### **STRATEGIC OBJECTIVES**

#### **STRATEGIES**

#### **SDGs**



### **Catalytic Roles** Towards HIV **Epidemic Control**

**HSS & PCT:** Differentiated service

delivery models (young people, men of age 20-45, MARPS), evaluations

**Research:** Implementation and health economics research capacity

**Labs:** Lab based monitoring and research

Systems Strengthening: Building sub-grantee capacity Capacity Building: Tailored training in support of new approaches, models and policies



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HSS: Interface with NCDs, NTDS, emerging diseases and refugee health

PCT: Building Clinical Research Organization (CRO) Capacity and infrastructure on clinic platform

Research: Using existing research platforms and partnerships to provide data and build analytical capacity **Labs:** Non-research service delivery

GHS: Build GHS program capacity on existing HIV program platforms and resources Capacity Building of staff & partner skills in support of a broader range of health conditions















**HSS:** Population level data capacity

PCT: Longitudinal cohorts

Research & GHS: Surveillance & Bioinformatics capacity

**Labs:** Data repositories

Systems Strengthening: Data analytics infrastructure and new program development

Capacity Building: Building staff and partner skills in support of big data programming

















Academy: Embracing new technologies for better program delivery and management

- Drone technology
- Application development
- mHealth
- Artificial Intelligence
- Blockchain











### **SUSTAINABLE ORGANIZATION SYSTEMS**

minimize dependence risks

Talent acquisition and retention: Prioritizing the acquisition and retention of talent that is critical to meeting key strategic objectives

Management systems and Infrastructure: Robust governance and support systems for enhanced efficiency, accountability, transparency and integrity.

Automation: Improved efficiency, knowledge generation and data utilization through automation

**Resource management:** Efficient use of resources to enhance competitiveness, value for money and institutional resilience **Diversification of income streams:** Diversifying income streams across sources and programme areas in order to

### STRATEGIC PARTNERSHIPS, COLLABORATIONS & **ENHANCED COMMUNICATIONS**

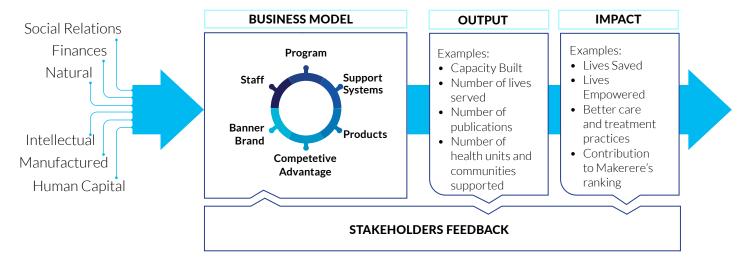
**Accelerating Strategic Partnerships development:** Developing partnerships for rapid capacity building in key strategic areas

Strategic Collaborations: Local Partner development and management (including sub granting) to support IDI programmatic and sustainability objectives

Enhanced communication and utilization of programs results: Building capacity for documenting, publishing, communicating and utilizing IDI programme evidence and learnings to create environment of awareness, understanding and trust for influence, income and impact.

### Our Business Model

The IDI business model is based on a banner brand (IDI, Makerere University) whose programmes, units and support systems produce key products (primarily skills, trainees/graduates, diagnostic tests, service models, infrastructure, scientists, publications) that strengthen health systems in order to impact the people it reaches and stakeholders. IDI strives to maintain a competitive advantage by differentiating itself on three aspects: integration (so that its products and services are mutually supportive in the programmatic and financial/resource sense), quality (the best quality services amongst its peers) and agility (being the first amongst its peers to respond to new opportunities within its mission). It aspires to build these three aspects into financial and programmatic decision-making.



### THE YEAR IN NUMBERS



80+

Districts in Uganda Covered



2500+

Staff



\$61.3M

**Total Budget** 



200,000+

**Patients Served** 



10

Health Facilities Renovated



3,100+

Healthcare Workers Trained



32,500+

Girls Empowered and supported

### **Our Presence**

IDI offices are currently located in Uganda. IDI regional programme presence as at June 2022 is primarily exercised through partners and subgrantees as it develops a more substantive regional strategy.





20+

National Acts and Guidelines



40+

**Funders and Partners** 



03

**Emergency Operations Centres Commissioned** 



100+

Publications Published



40+

Scholars Sponsored (Master, PhD and Fellows)



<del>8000+</del>

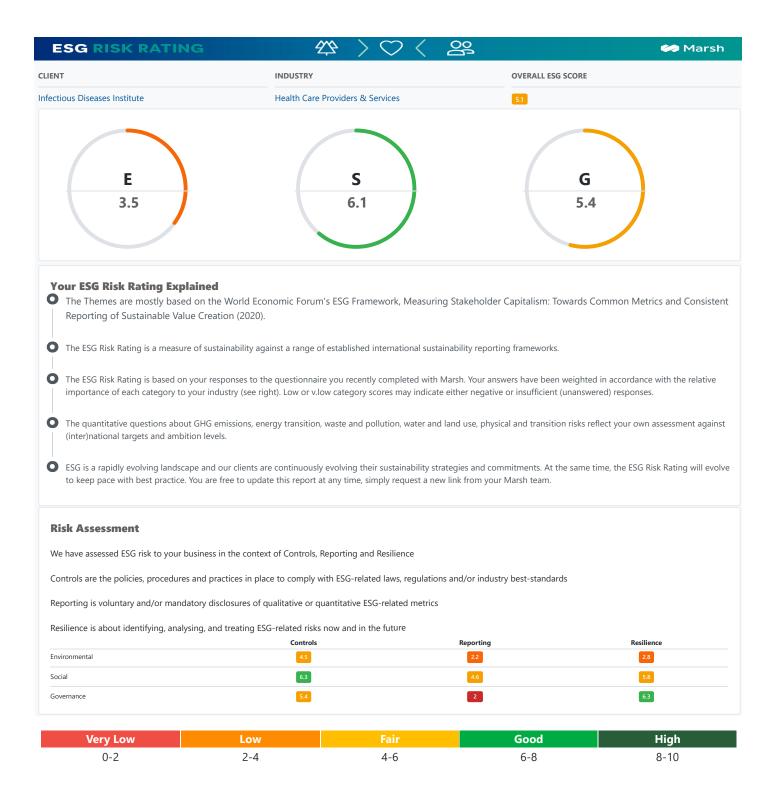
COVID-19 Vaccination Champions Trained





### ESG Rating

IDI completed a third-party ESG risk assessment using data for the FY 2021/2022 to determine its ESG baseline. The rating showed an overall rating of 5.1 (51%). We are committed to advancing the Environmental and Governance pillars which had lower ratings, ensuring strategies to advance overall institutional sustainability are embedded in the Strategic Plan 2023-2028.



### Sustainable Value Addition to Stakeholders

In 2021/22, IDI created value for its major stakeholders who are the wider Makerere University community, the government of Uganda (especially the Ministry of Health, local governments and regulatory bodies), the public (especially its communities and people we serve as well as business partners), our funders and co-implementors, as well as our staff. We did not only contributed significant value directly to each of these stakeholders but also indirectly caused a positive impact on economic, environmental and social sustainability. IDI engaged its stakeholders at various levels as follows;

Over 2,000 people benefited from employment, training and learning opportunities as well as an environment that encourages personal growth.

Over 1,600 of IDI's employees are community-level staff and volunteers

Staff

IDI programmes covered disadvantaged communities in over 80 districts of Uganda and increasingly in various African communities.

Community

IDI worked with over 300 local and international suppliers (including many women-owned and small businesses), spending over US\$ 8.8million that directly impacted local livelihoods **Suppliers** 

### Government and Public Institution

IDI programmes are embedded into the health system, directly and indirectly supporting government policies and strategies and supporting the objectives of Makerere University, including delivering robust research (over 200 publications and 40 scholars at PhD, MSc and post-doc levels)

#### **Funders and Partners**

As a not-for-profit, IDI worked closely with over 30 funders and 80 implementing partners, co-creating value with them and fostering international co-operation and understanding while meeting common social goals

### Regulators

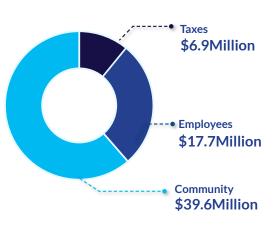
IDI met international, national and industry financial, operational, programme standards and guidelines, including funder specific, external/statutory and internal audits all of which had no notable adverse findings.

**Common purpose:** IDI strategic objectives are aligned with and feed into those of the government of Uganda, Makerere University, funders, co-implementors, and local and global technical bodies.

**Direct benefits through IDI activities:** Key project activities contribute directly to the social and economic well-being of its local and regional stakeholders.

Additionally, IDI publications are a direct contribution to Makerere University's aspirations to be a research university and they contribute directly to its global ranking.

**Indirect Contributions:** IDI makes substantial additions to the global body of knowledge in a wide variety of scientific, managerial and policy areas that benefit its stakeholders.



### Stakeholder Consultations

The following themes/strategic objectives emerged from an extensive stakeholder survey conducted to inform IDI's 2023-2028 strategy. The final plan is due for release in November 2023 and may or may not include them in the current form.

1

## Providing differentiated services with a special focus on priority populations

(key, underserved and/or vulnerable sub-populations that are at higher risk and/or have less access to the relevant programme intervention/s) 2

Using IDI programme platforms to support health product development, introduction, roll out and evaluation: A focus on vaccines, point of care (POC) products and drugs that target its low resource environment

3

Harnessing big data: Utilizing big data and advanced analytics to design novel, locally appropriate solutions 4

Generating a robust appropriate technology pipeline: A robust pipeline of technologies (at concept development, piloting, scaling and roll-out/start-up stages) to improve health outcomes in a low resource setting

## STRATEGIC PLANNING AND DEVELOPMENT



**Tom Kakaire**Head of Strategic Planning and Development

SPD leads the IDI strategy cycle and coordinates IDI efforts to acquire, manage and report on resources entrusted to the Institute by its external partners.

In the reporting year, the Strategy / Strategic Information function covered several emerging issues / themes/organization units, including institutional cost recovery guidelines, diversification plans, Information Systems Upgrades, Enterprise-wide Digitalization Initiatives and Bioinformatics / Data science programming. These fed into Board discussions and decisions that guided developments in these areas and provided a basis for integrating these key organizational themes/ issues into future planning and programme design.

The department aligned business development efforts to emerging strategic themes, and has seen significant revenue growth in new areas, such as Global Health Security (GHS) and Data Science as well as increasing programmatic diversification. For example, new programmes have broadened to encompass new workstreams. Despite being at the tail end of the COVID pandemic, revenues continued to grow by 9% from \$59.6M in FY 2020/2021 to \$61.3M in FY 2021/2022, with GHS revenues in particular notably growing by 9%.

In the same period, more than 80 subgrants were awarded. These ranged from local governments to peer NGOs and community-based organizations, including those managed by, and serving key populations (KPs). Steady improvements in managing the entire IDI sub-granting cycle were noted. We conducted 12 pre-award assessments to determine eligibility and risk. Out of these, six subgrantees were found to be medium to high risk. Following its usual model, IDI's experienced staff further built the capacity of sub-grantees to meet a minimum, compliant level of financial and grants management as well as reporting.

We embarked on a gradual process to build these subgrantees' capacity alongside close supervision that is gradually less intensive as more systems are built and tested. Concurrently, IDI built capacity for subgrantee staff to coordinate and manage their own resource generation effort.

Following a performance-based approach, we developed programmatic and financial compliance KPIs jointly with sub-grantees, on which incremental sub-grant funds are pegged. In the reporting period, 81 subgrantees completed their annual subgrant cycle receiving several rounds of funding. Subgrantee organizations generally expressed satisfaction with IDI's approach.



Sylvan Kaboha
Deputy Head of Strategic
Planning and Development









IDI carried out 12 financial reviews for 83 sub grantees to ensure compliance with both funder guidelines and IDI policy and procedures. Institutional single audits for USAID, CDC and NIH were successfully supported. The Grants team (18) attended a 3 day 'CDC & USAID financial management and compliance- 2022 and beyond' training to refresh their knowledge of US government compliance guidelines.

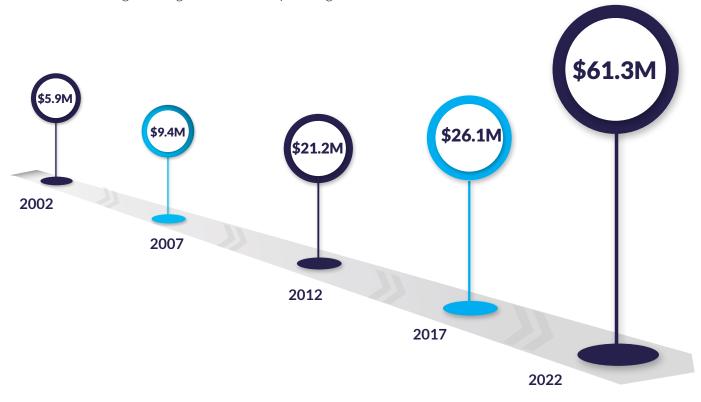


Fig 1: Growth of grants over the years

### Grants by Programme

The total post-contract value of the IDI Grants and Contracts portfolio, including all unspent multi-year funding commitments at the end of FY 2021/2022 was estimated at \$\$117,705,375. This includes the unspent portion of all grants for which funds have been committed by a signed agreement (even if some of these grants will require additional formal obligations that are made in annual increments).

IDI's Grants portfolio at the end of FY 2021/22, included over 120 post-contract grants (for projects that are being implemented), of which 28 were multi-year grants/sub-grants. There were an additional 19 grants or contracts for which IDI had been informally notified of a successful application but for which a formal contract/agreement was yet to be signed. Over 30 applications /submissions were still awaiting formal funder decisions. Overall average contribution to IDI core costs from the year's expenditure was estimated at 12.07% of total annual revenue which was an improvement from an average of 11.03% in FY 2020/2021.

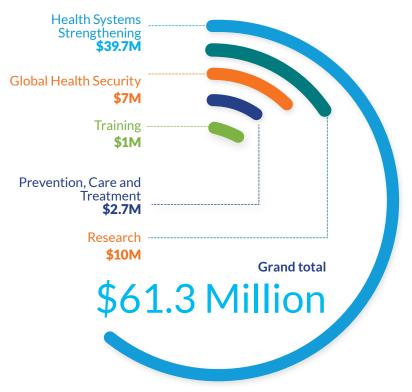


Fig 2: Revenue by programme area

### **Business Development**

Number of Countries with IDI programming including subgrants

124
Running Grants 2021/22

\$61.3M

Total Grants Expenditure 2021/22

83
Running Sub-Grants to other entities 2021/22

\$15.3M

IDI submitted over 30 proposals in the course of the year, attracting 12 new awards, three of which were from new partners. Total annual restricted revenue over the year was \$61.3M with contributions from the following sources:

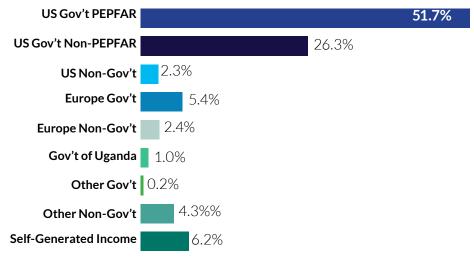


Fig 3: FY 2021/22 Revenue by source

### Grants and Contracts Management

Total Sub-Grants Expenditure 2021/22

Over 120 grants/sub grants and contracts/subcontracts were managed to a high degree of excellence during the year. The online Grants Expenditure Management System (GEMS) that was developed in-house and tested last year is now fully functional and deployed across all post contract grants. Continuous modifications and improvements continue to be undertaken to optimize the system. The system provides real time grant expenditure tracking across the transaction cycle and produces budget performance data to support optimal decision-making. Many of IDI's Uganda partners have expressed interest in replicating GEMS functionality.

### Building capacity for regional implementation

During the year, SPD supported the award of subgrants to partners across 15 African countries with whom IDI is co-implementing the Programme for Research on Covid-19 Vaccine Effectiveness (PROVE). PROVE is an implementation research project funded by the MasterCard Foundation through Africa CDC. Subgrantees identified and vetted through this project will form a network through which IDI can rapidly roll out research projects across the African region.

### Strategic Information

The Strategic Information (SI) function leads and manages the organization-level (as opposed to project-level) Monitoring and Evaluation. SI fills in any emerging gaps for projects with no full-time dedicated M&E right from the proposal/project design stage. It supports organization-level systems and practices by aggregating M&E data from multiple sources to produce program and organization-level Key Performance Indicators (KPIs). This primarily enables Board-level monitoring of performance against evolving IDI strategic plan objectives. As such, SI managed the organizational strategic/corporate M&E cycle, generating and reporting against program and organizational targets for all 6 programs of IDI.

## FINANCE AND ADMINISTRATION



Susan Lamunu Shereni
Head of Finance and
Administration

The financial year 2021-2022 presented unprecedented challenges, significantly stretching the three subunits in F&A: finance, supply chain, and operations. The team demonstrated resilience and agility in a high-risk, dynamic, and uncertain environment, which resulted in saving lives from a programmatic dimension and strong financial and operational performance.

The institute saw a 116% improvement in the bottom line, allowing for investments ahead of the curve in strategic priority areas such as bioinformatics. There was increased pressure on cash flows driven by increased working capital requirements that resulted in a 31% decrease in operating cash flow.

The resilience of the IDI supply chain was particularly tested with the increasing demand for specific life-saving supplies within urgent timeframes while still maintaining standards and controls against supply chain risks. This also opened up opportunities for learning, continuous improvement, supplier development, and new partnerships. A total of US\$9.5 million was spent through the supply chain, with the bulk of the funds spent on much-needed lifesaving supplies and equipment. In the reporting period, the operation unit implemented a new

In the reporting period, the operation unit implemented a new transportation model for medical teams and key staff, which was a huge success, allowing the programmes to serve the community.

### Stakeholder Feedback

During the reporting year, F&A sought to consolidate gains from improved operational efficiency by transitioning to a business partnership model following feedback from stakeholders. A stakeholder survey, a root cause analysis, and an industry benchmarking process were completed to inform the transition process

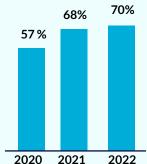


Fig 1: Graph showing F&A stakeholder satisfaction rating from 2020 to 2022

The expected outcome of the transition included enhanced operational efficiency, capacity development of both the program and F&A team with a stakeholder satisfaction rating target of 95%. In addition, the transition will foster an enhanced culture of accountability, ownership and advance funding diversification.

We remain committed to continuous learning and improving service delivery



Milly Laker
Deputy Head of Finance and
Administration













### Finance

In pursuit of our mission, we are committed to maintaining financial sustainability and transparency. Our financial performance during the reporting period reflects our dedication to responsible stewardship of resources and the effective execution of our programmes. During the fiscal year 2020-21, IDI achieved significant milestones in its financial performance.

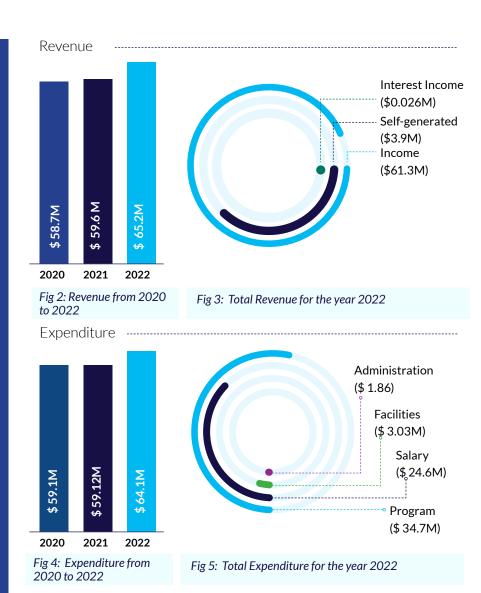
We realized a 9% growth in restricted revenue and an improvement in a diversified portfolio, which included a 10% growth in self-generated income. Management remained skeptical about the interest rate movements in such a volatile environment, and this resulted into a modest return on investments from money markets. IDI remains dependent on grant funding to deliver its collaborative mandate.

The return on investment from strategic investments resulted in an increase in restricted income, which counterbalanced inflationary pressures and funding cuts in certain projects.

Despite negative financial headwinds, 54% of resources were allocated to service the community through IDI core programmes,

38% was spent on human capital, and 8% was used to manage administrative and facilities costs. Cost containment measures were implemented, but due care was taken not to frustrate delivery of programmes.

Overall, there was a growth in total assets by 18% and total fund balance by 7%, strengthening the financial position of the institute.



Overall there was a growth in total assets by 18% and total fund balance by 7% strengthening the financial position of the institute.

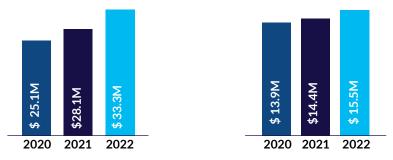


Fig 6: Total Asset Growth Fig 7: Total Fund balance growth

### **INTERNAL AUDIT**

The IDI Internal audit (IA) function utilizes the COSO Framework in establishing and integrating internal controls within IDI's business processes. This is primarily achieved through Internal audit assignments and risk management. Our internal audits focus on the assessment of the control environment so as to mitigate the exposure associated with IDI's risks. Through these audits, the IA unit assists institute management by giving valuable recommendations on areas of weakness within IDI itself and partners to whom it provides resource. The IA team draws up annual workplans which identify specific areas, units or projects that will be prioritized for audits and assessments. In FY 21/22, a total of 26 audit assignments were scheduled and of these 17 were completed.

A significant proportion of audit assignments in the year focused on IDI's growing sub-grantee portfolio. The internal Audit Unit performed risk assessments of potential sub-grantees for a variety of projects both locally and regionally. A total of 11 organizations across Africa were assessed during FY 21/22 to determine the strength of the internal control environment and identification of related exposures. Seven organizations were recommended for sub-granting, while others received recommendations for corrective action in specific areas. The team gained valuable experience in assessments and audits of foreign (non-Ugandan) entities that will serve them well in the future as IDI continues to expand its regional footprint in Africa.

### Risk management

The IA unit further supported management of the Institute's strategic risks, through maintaining a corporate risk register that outlines the top strategic risks of the Institute. IA routinely monitors the register, then coordinates its comprehensive review and update every two years to reflect changes in IDI's risk environment. This FY 2021/22, the IA unit expanded institutional risk assessments to new areas of exposure that emerged in IDI's programming landscape such as OVC programming (including school fees and apprenticeship opportunities for vulnerable children and adolescents) and emergency response health financing to respond to epidemics. The unit provided appropriate recommendations for managing risk in these areas.

In addition to its scheduled assignments, the IA unit conducts fraud investigations or special audit assignments on request by Management, following whistle-blower cases or based on requests from the Board Audit Committee. In FY 21/22, 6 fraud cases were investigated and presented to the Board Audit Committee (BAC) which used them to recommend relevant management actions.

The internal Audit unit continued to strengthen the Institute's Internal control environment through capacity building aimed at both the Institute's own teams as well as its sub-grantees. For example, the IA team conducted three (3) institution-wide trainings, including two (2) that focused on fraud awareness. Fraud awareness training was also incorporated into twelve (12) monthly orientation sessions for new staff.

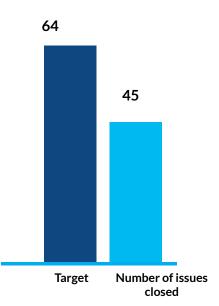


Fig 8: Number of issues closed vs the target

17
Audits conducted

Whistle-blower cases handled

14 Fraud related trainings conducted 11 Organisations assessed for subgranting

### RESEARCH



As we close out FY2021/2022, the IDI Research Department continues to strengthen its capacity-building model to support local research independence and leadership.

Over the past 15 years, we have produced the first generation of local independent scientists who have received research funding in HIV prevention, tuberculosis, pharmacology, and liver disease. The department has also improved efficiency, integrity, and regulatory responsibility through centralized governance, institutional standards, and regulatory systems. In 2022, we had 5 PhD and 10 fellowship awardees. The goal is to produce internationally recognized scholars in infectious diseases.

The Research Department held the Annual Research Fair 2022 to celebrate our milestones in research and scholarly accomplishments, with a focus on our contributions to national and international policy directives. The theme-driven fair brought together academics, programme implementers, international and local collaborators, and decision-makers in health policy.

**Dr Barbara Castelnuovo** 

Head of Research

We also launched electronic research binders that enable paperless operations and remotely regulated access to departmental information as part of the global effort to decarbonize the environment.

Our next steps include;

- Strengthening our model for capacity building.
- Promoting research capacity-building as a crucial activity both within and outside the research department.
- Expanding knowledge-sharing and dissemination platforms, strengthening connections and collaborations between researchers and health policymakers,
- Establishing a consolidated Data Science Unit at IDI, and expanding research management systems with a focus on digitalization are all ways to make IDI a preferred research partner in the region.

We keep working to generate great, globally renowned infectious disease researchers who can have an impact on theory and practice.



**Dr Stephen Okoboi**Deputy Head of Research

### **Projects Running**

In 2021/22, we had 131 active research projects, of which 90 (68.7%) were observational studies, 27 (20.6%) clinical trials, and 14 (10.7%) others (Figure 1). The range of our interdisciplinary and diversified research initiatives reflects the character of IDI's research portfolio. No matter what category a project falls under, all of them share the same goal: to change the way infectious disease is prevented, treated, and managed.

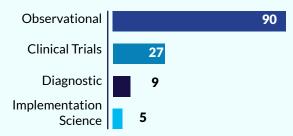


Fig 1: Projects run under the Research programme

We are committed to fostering influential, internationally acclaimed research that not only advances knowledge but also results in real changes in practice and policy. Our research activities are supported by a number of strategic themes that motivate our work.

### Building Research Capacity

A cornerstone of our commitment is to nurture research capacity, not only within our institution but across Uganda and Sub-Saharan Africa.

### Disseminating Impactful Findings

To influence policy and practice, we publish our research outputs in peer-reviewed publications and high-impact journals, alongside book chapters, conference proceedings, and grey literature.

### Remaining Relevant in Emerging Areas

We recognize that scientific relevance requires adaptability and specifically invest in developing research capacity in dataintensive science, global health security and we provide leadership in overarching strategic initiatives related to IDRS and HEOR

### Nurturing Collaborative Partnerships

A cornerstone of our commitment is to nurture research capacity, not only within our institution but across Uganda and Sub-Saharan Africa.

















### Publications

Publications are the lifeblood of scientific development in today's quickly changing healthcare environment. They act as a link between the ground-breaking work we do at IDI and the rest of the world, ultimately advancing the study of infectious diseases and patient care. Cumulatively, we have published 1,260 research articles in peer-reviewed journals. Of these, 119 articles were published in 2022.

These publications are the result of many years of meticulous investigation, unwavering commitment, and teamwork inside our organization. They have given our scientists, doctors, and professionals a platform to share their knowledge, ideas, and discoveries with the rest of the world. We have made substantial advancements in the fight against infectious diseases, enhanced diagnostic and therapeutic approaches, and influenced international health policy as a result of these articles. Our papers cover a broad range of subjects, including ground-breaking HIV research and cutting-edge investigations.



Fig 2: Publications submitted with IDI staff as either first and last author

### IDI Research Ethics Committee: Guardians of Ethical Research

The highest ethical standards for research at IDI are upheld by the IDI Research Ethics Committee.

The committee carefully examines and approves research proposals, procedures, and studies to guarantee the protection of participants' rights and welfare.

Additionally, it promotes a culture of ethical research when it comes conduct of human research participants. In 2022, the committee reviewed 48 initial submissions.

### The Annual Science Fair

The IDI Science Fair is an annual event showcasing research and creativity in infectious diseases.

Inaugurated in 2020, the fair brings together researchers, scientists, policymakers, healthcare providers, and students to promote teamwork and inspire future scientists. The 2022 fair had 26 presentations, and a "Meet the Mentor" session that attracted 900 participants.

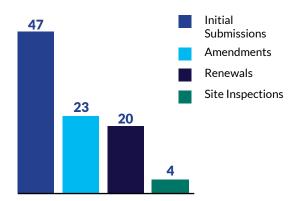


Fig 3: Number of proposals examined and approved through different stages

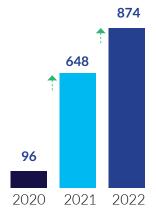


Fig 4: Number of participants at Science Fair over the vears

### Messages from Meet-the Mentor Session during the Science Fair



We've got to know that mentors also had some hardships. The research world continuously requires one to have resilience. Hearing about how mentors have had to build this skillset is reassuring for early career individuals who are considering joining or leaving this field. ~Message from Mentee



As a mentee, do not go to the bus park without clarity of direction. Sometimes the starting point may be driving though a bush. Remember that is a process not a destiny.

~Dr Andrew Mujugira

#### Translational Lab

The Translational Laboratory provided support for 43 different research initiatives, involving 11 trainees, primarily hailing from Makerere University. These trainees included 3 Post-doctoral researchers, PhD fellows, 2 Master's students, and 4 apprentices. The laboratory executed a total of 17,901 tests and generated 17 publications.

Additionally, the scope of mass spectrometry research has been broadened to encompass the analysis of anti-fungal drug concentrations as well as other drug levels in dried blood spot and hair specimens.

### African Centers of Excellence in Bioinformatics and Data Intensive Sciences

The African Centers of Excellence in Bioinformatics and Data Intensive Sciences, established in 2019, focuses on High-Performance Computing, Bioinformatics, Data science, predictive modeling, and Enhanced Visualization. It aims to promote research and training for improving health in Africa, making it one of two such National Institute of Allergies and Infectious Diseases (NIAID) Office of Cyber Infrastructure and Computational Biology (OCICB) supported centers of excellence in Africa.

**Bioinformatics:** ACE-Uganda uses genomic datasets to understand disease pathogenesis, transmission dynamics, and evolutionary analysis of pathogens. It co-hosts an MSC/ Ph.D. programme in bioinformatics with Makerere University's Colleges of Health Sciences and the College of Computing and Information Sciences and has ongoing initiatives. Including supporting continent wide short courses in Bioinformatics (H3ABionet Introduction to Bioinformatics, Next Generation Sequencing, African Genome Medicine Training) 2021/2022

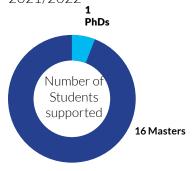


Fig 5: Number of scholars supported under ACE

### b) Data science, software, and tools:

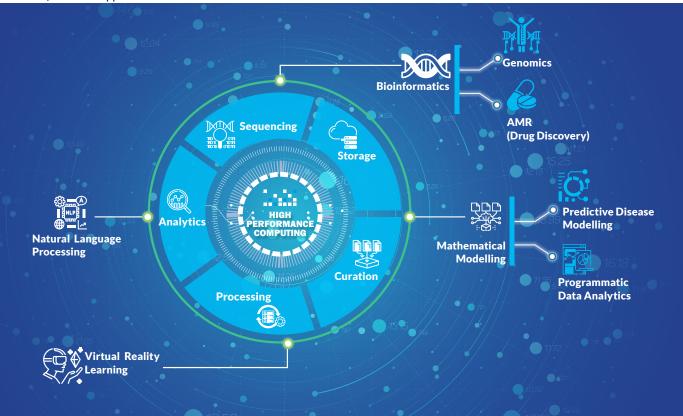
ACE-Uganda utilizes machine learning, AI, data mining, programming methods to analyze and visualize biomedical data. In 2021/2022, the ACE implemented initiatives, such as the development of a Bilingual English and Luganda Al COVID-19 chatbot and the Uganda National Sickle Cell electronic registry hosting over 5000 sickle cell patients enrolled across the country leveraging data-science-enabled tools.

c) Mathematical Modelling: ACE-Uganda promotes the capacity for epidemic preparedness for new and re-emerging infectious diseases, such as Ebola, monkeypox, COVID-19 (https://coastug.org/), malaria, etc. through the development of mathematical and statistical predictive models. In

2021/2022, ACE-Uganda carried out two mathematical modelling projects: Modelling and Forecasting COVID-19 Transmission and Evaluating COVID-19 Responses and Monkey Pox Virus Transmission Dynamics.

### d) Enhanced Visualization Capabilities:

ACE-Uganda is a pioneer in using Virtual Reality (VR) for medical training, with a unique visualization lab and infrastructure. In 2021/2022, we implemented various VR projects. including ARVR Africa Metathon 2022, an Africa-wide VR training initiative sponsored by (Facebook), in which the ACE played a pivotal role as the Ugandan country partner. Moreover. ACE hosted the Virtual Reality in Medicine and Surgery (VRIMS) Conference in collaboration with the University of Brighton UK.



### **IDI Supported Scholars**

In 2021/2022, we supported 77 scholars:

- 27 PhDs
- 6 post-doctorates
- 15, research fellows
- 4 senior research fellowships
- 25 masters' students

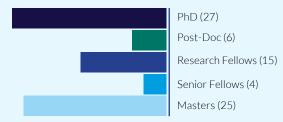


Fig 6: Number of scholars supported the Research Programme



**Dr Andrew Mujugira** Senior Research Scientist

### IDI Kasangati Site

IDI Kasangati, is one of Uganda's top HIV prevention research sites. It has conducted numerous trials, demonstration projects, and implementation science studies, especially focusing on HIV pre-exposure prophylaxis (PrEP) within a wide range of subjects. These include adolescent girls, young women, couples with different HIV serotypes, drug users, male partners of HIV-positive pregnant women, and sex workers.

Other research includes assessing the danger of COVID-19 in refugee settlements, conducting a clinical study of broadly neutralizing antibodies for HIV prevention, and pushing for an HIV cure. The University of Washington Center for AIDS Research, the Bill and Melinda Gates Foundation, Elrha, and Gilead Sciences, Inc. all provided funding for these studies.

Our completed studies include the Partners Study (RO1 MH113434), the Obumu Study (R01 MH113434), the Kampala Women's Bone Study (R01 HD089843), the Align Study (R21 HD098923), and the ART on the Go Study.

### **Key Achievements**

- Initiated enrollment for the Tandika PrEP Study, one of the continent's pioneering randomized trials of tenofovir alafenamide as PrEP, and successfully conducted the Kingasa Study, a pilot randomized trial examining point-ofcare viral load testing at delivery for both mothers and infants.
- Implemented a Pharmacy Delivery Study, offering pharmacy-based PrEP delivery services for young women requiring emergency contraception, and actively engaged in an HIV cure advocacy project in collaboration with the International AIDS Society.
- Delivered oral and poster presentations at prominent conferences, such as AIDS 2022 in Montreal, Canada, CROI 2022 (virtual), and INTEREST 2022 in Kampala, and served as a prevention science rapporteur at the International AIDS Society 2021 Conference, all of which helped to advance HIV prevention strategies and research.
- Introduced innovative interactive voice response technology to mitigate COVID-19 risks within refugee settlements in Uganda through the Dial-COVID Study.
- Published 14 research papers, including first-authored articles in esteemed journals, such as the Journal of the International AIDS Society, Journal of Acquired Immune Deficiency Syndromes, and Frontiers in Public Health.

#### New collaborations:

A new collaboration has been established with the University of Alabama at Birmingham to assess adherence to oral and injectable PrEP among individuals who use drugs in Uganda.

It motivates me to see that the virus is suppressed and personally I felt motivated to continue taking my ARVs. I was so excited to see that my results had not changed from how it was when I was joining the Kingasa Study ~ Beneficiary

## GLOBAL HEALTH SECURITY



**Dr Mohammed Lamorde** Head of Global Health Security

Regional Programming

IDI received a grant from MasterCard Foundation to serve as the Implementation Science Partner of the Africa CDC Saving Lives and Livelihoods vaccination program. Through this award, IDI and AFREhealth will work with in-country partners to evaluate the effectiveness of COVID-19 vaccines and provide scientific evidence on barriers and enablers of the vaccination program in 15 African countries.

Within Uganda, IDI will expand its work on demand creation for COVID-19 vaccination through a new initiative of the Rockefeller Foundation and extend its collaboration with US CDC to strengthen routine immunization systems across the life course

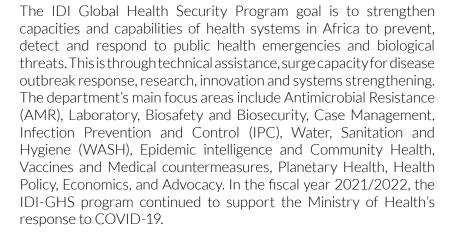












This support included enhancing Case Management during the Delta wave, facilitating COVID-19 vaccination for priority populations, and establishing Regional Public Health Emergency Operations Centers, as well as improving laboratory sample management, and infection prevention and control in healthcare facilities.



Francis Kakooza
Deputy Head of Global Health
Security





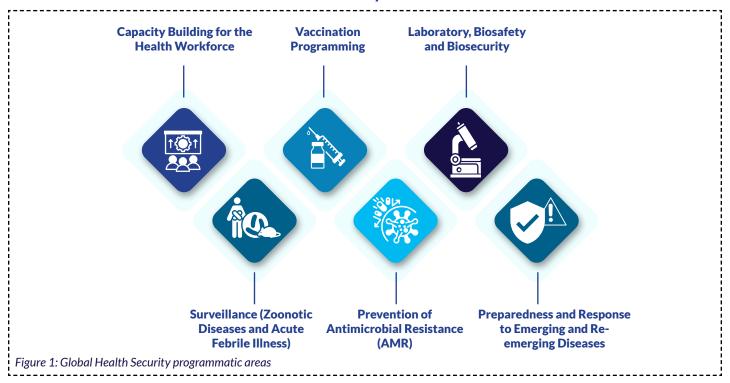


Francis Kakooza was appointed as the Deputy Head of the Global Health Security Department in 2021. He is a Molecular Microbiologist and Public Health Specialist with a PhD candidacy focusing on pathogen genomics and molecular epidemiology of STIs and AMR. He has a wealth of experience, including training at the WHO Collaborating Center for Gonorrhea and other STIs in Sweden. He has leadership roles in the Africa CDC Implementation Science program, lectures at Makerere University, and actively participates in global health security initiatives with numerous peer-reviewed publications and keynote addresses.

Global health security is the existence of strong and resilient public health systems that can prevent, detect, and respond to infectious disease threats, wherever they occur in the world.

Our Global Health Security programme supports the Ministry of Health in implementing the Global Health Security Agenda (GHSA) through interventions in three core strategic areas: laboratory, epidemiology, and informatics; infection prevention and control; case management; and medical countermeasures. In FY 2021–2022, we supported Uganda's preparedness and response efforts to small and large-scale outbreaks, including COVID-19, Ebola Zaire, and Ebola Sudan.

### **Global Health Security Thematic Areas**



#### Acts and Guidelines

We provided public health legal expertise and health policy technical assistance to the Parliamentary Health Committee to fast-track the new legislation of the Public Health Act [2023]. The act empowers the government and stakeholders to take measures to prevent and respond to public health threats and emergencies. We also supported the government of Uganda's pilot and roll-out of the 7-1-7 timeliness framework for outbreak preparedness and response.

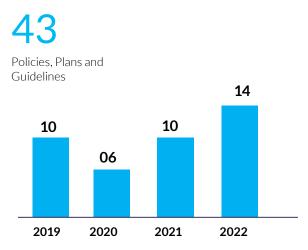


Figure 2: Numer of Policies, plans and guidelines supported over the years



Figure 3: Facilitated the development and implementation of the National Action Plan for Health Security

### Antimicrobial Resistance

In FY2021-2022, we supported the transition of the national AMR governance structures from human health to one health-led structure under the National One Health Platform (NOHP). This was through a collaboration with the Ministry of Health, the Ministry of Agriculture, Animal Industry, and Fisheries, the Ministry of Water and Environment, and the Uganda Wildlife Authority to enable multi-sectoral linkages and the sharing of resources and responsibilities on AMR in a coordinated manner.

We continued to collaborate with the NOHP in piloting a one-health disease surveillance model in the West Nile region. Plus, we explored avenues of implementing AMR and AMU surveillance in the animal sector to collaboratively strengthen disease, AMR surveillance, and research within the animal health sector.



Figure 4: Supported the National Microbiology Reference Laboratory to enhance testing capacity for detection of AMR pathogens

### COVID-19 Vaccination

In the reporting period, we significantly contributed to the government's effort to roll out the COVID-19 vaccination nationwide. From the onset, IDI focused on mobilizing priority groups to receive COVID-19 vaccines. Through targeted models, we supported the vaccination of more than 75,000 individuals. To address vaccine hesitancy, we worked under the supervision of the Ministry of Health to develop educational materials on COVID-19 and trained over 8,000 vaccination champions—individuals who could directly reach others and support them to overcome barriers to obtaining the vaccines.

With CDC funding, we rolled out three rounds of the regional accelerated mass vaccination campaigns in 51 districts and cities, contributing to Uganda's success in administering more than 21.9 million vaccine doses by June 2022. The Vaccination Action Network (VAN) project focused on strengthening health systems in support of scaling up COVID-19 vaccine demand strategies.

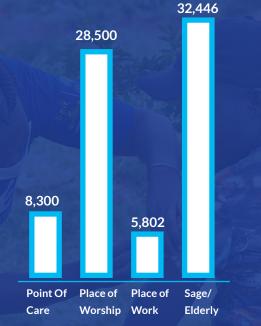


Figure 5: Individuals vaccinated through models targeting priority groups.

### Laboratories, Biosafety and Biosecurity

In 2021/22, IDI and the Bio Risk Management Training Programme developed and rolled out a curriculum to guide the country's bio-risk assessments and provide corrective support. We also revamped the Uganda Biosafety and Biosecurity Association and built its capacity to carry out its mandate.

Additionally, we built the capacities of selected health facilities through the provision of standard guidelines, infrastructure remodeling, and maintaining pathogen inventories. Biosafety/Biosecurity-supported projects included the CDC-funded GHS projects, Fleming Fund Country Grants, and the Biomereaux Biofire Point of Care project supporting the validation of novel culture-free diagnostics.



We supported the National Microbiology Reference Laboratory to attain College of American Pathologists accreditation and strengthen the laboratory network and research towards early detection of outbreaks.

### Surveillance and Zoonotic Diseases

Over time, IDI has strengthened its capacities for surveillance of zoonotic diseases through training and mentorships, with over 128 staff trained on safe collection, packaging, and transportation of samples and on the implementation of an integrated sample transportation and referral system for samples from both the animal and human health sectors.

In FY2021-2022, over 293 one-health samples were transported through the integrated system. The turnaround time for outbreak sample results improved from a baseline of 120 hours to an average of 48 hours. Similarly, over 125 human and animal health workers were trained in One Health surveillance techniques, enhancing their capacity to detect zoonotic diseases.

2,971
Alerts reported

### Water, sanitation and hygiene (WASH) / Infection Prevention and Control (IPC)

To enhance the best infection prevention and control (IPC) practices in health facilities, IDI implemented an IPC model in 14 regional referral hospitals. The model included the implementation of all eight WHO core components, with a special focus on hand hygiene linked to syndromic monitoring of healthcare-associated infections (HAI).

With funding and technical support from the Centers for Disease Control and Prevention (CDC), the programme expanded handwashing and Alcohol Based Hand-rub (ABHR) use in health facilities and community institutions. The initiative used WHO protocol to locally produce and distribute ABHR, promoting sustainable production and distribution, and enhancing outbreak response preparedness at the district government level.

06

ABHR production units established in 6 districts

27,000+

Litres of quality controlled ABHR produced



Figure 7: ABHR Production at IDI Kasangati Site

### **HEALTH SYSTEMS STRENGHTENING**



The Health Systems Strengthening program is committed to enhancing healthcare access and quality in the communities we serve - empowering them to better combat infectious diseases.

Our initiatives include capacity-building programs for healthcare professionals, enabling them to provide improved care, diagnostics, and treatments. We have also worked extensively to reduce stigma surrounding infectious diseases, fostering a culture of empathy and understanding within communities.

Additionally, our efforts in research and innovation have led to the development of effective strategies that have strengthened the ability of health systems to detect and respond to health threats swiftly. The collective result of these endeavors has been a more robust and responsive healthcare system, which ultimately leads to better health outcomes for the communities we serve.

**Dr Alex Muganzi Head of Health Systems** Strengthening

IDI was awarded PEPFAR / CDC funding to implement a fiveyear above site KP Civil Society Organisation (CSO) project. Key Population (KP) are groups of people whose social marginalisation makes them particularly vulnerable to HIV infection because they experience both increased impact and decreased access to services.

In October 2021, the IDI National CSO mechanism expanded its scope beyond the seven regions of Uganda supported primarily by USAID and Department of Defense. The project facilitates scale up of effective and quality comprehensive HIV services through community drop-in centers for KPs

Key areas in which we support KP programming include CSO mapping, capacity assessments, system strengthening for effective program delivery through tailored trainings, mentorship and CSO exchange-learning across regions.



Dr Joanita Kigozi Deputy Head of Health Systems Strengthening



















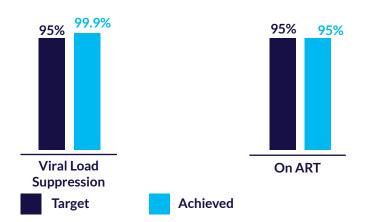


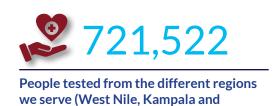






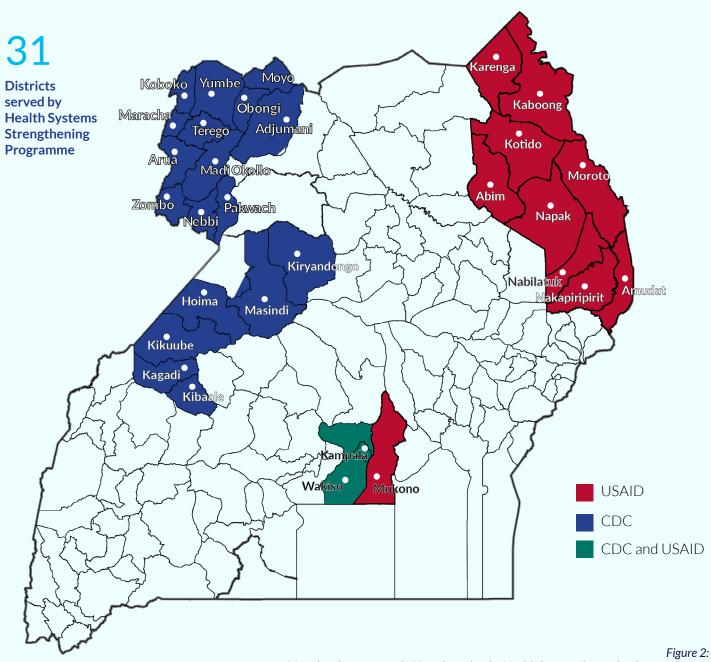






Wakiso)

Figure 1: Percentage performance on Viral Load suppression and People served on ART vs the 95-95-95 targets.



Map showing presence in Uganda under the Health Systems Strengthening programme

### Key Highlights from the New Above site TB Grant



Figure 3: TB Marathon organised by Ministry of Health

In October 2021, the Institute was awarded a five-year USAID-funded Local Partner Health Services-TB (LPHS-TB) project which is a transition award from Defeat TB project. This is the 2nd Prime Award from USAID, in addition to the USAID Program for Accelerated Control of TB in Karamoja (PACT Karamoja) awarded in January 2020.

With this award, the mandate for the Institute was expanded from subnational support to provision of technical assistance to the Ministry of Health-National TB and Leprosy Division as the flagship US Government TB project to Uganda. The scope was also increased to include technical assistance to management of Drug-resistant TB directly to seven regional referral hospitals and indirectly, to the other 10 hospitals managing drugresistant TB in Uganda.

### **TB Patients Served**

LPHS-TB Activity also enhances the TB response in Kampala, Mukono and Wakiso districts in collaboration with IDI-Kampala HIV Project and Makerere University Walter Reed Project (Mukono).

Transition of all technical areas of the project from URC to IDI was successfully completed on schedule in July 2022.

### DREAMS



32,000+ **Girls Supported** 



## DREAMS has transformed my life for the better, I hope to do the same for others

23-year-old Kismat from Nansana, Wakiso, joined the DREAMS project in 2021. Despite her young age, Kismat had experimented with drugs and alcohol to cover up her unimaginable trauma and sexual exploitation. The fact that she didn't acquire HIV from all the unprotected sexual encounters with multiple men ravishes her. "I had a dangerous lifestyle of multiple sexual partners, drugs, alcohol, and the rest," she recalls, despair visible in her almond-shaped eyes. "I think I am the luckiest person alive.

The five-year CDC-funded DREAMS project aimed at reducing HIV infection among girls aged 10-24 in Wakiso district. Kismat was trained in fashion and design. In 2022, she opened a tailoring workshop, earning over UGX 1 Million (\$270) monthly. She plans to start a salon next year to diversify her income streams. Kismat is now able to afford basic necessities without risking her life.

## TRAINING AND CAPACITY DEVELOPMENT



In 2021–2022, we focused on enhancing and maintaining the knowledge and skills of our target audience for the delivery of sustainable, high-quality prevention, care, and treatment services to individuals affected and/or infected by infectious diseases. The outcome was an expanded scope of capacity-building products and services and a wider stakeholder base. We trained and mentored more than 5,000 healthcare providers in different skill sets that match the changing times. Our main focus was growing our online presence, and this effort resulted in a 2-fold increase of online trainees from 177 to 392.

The Training Programme focused on building our capacity to retain and grow our relevance in developing new courses. Our new products include (i) the alcohol-based hand rub production course. (ii) resource mobilization, grants, financial management, and compliance, among others.

We will continue to tap into deep scientific insights on health and wellness so that the knowledge and competencies of healthcare providers are enhanced and maintained to continue providing world-class healthcare.

**Dr Umar Ssekabira**Head of Training and Capacity
Development

The Training and Capacity Development Programme remains dynamic and responsive to the changing capacity needs of healthcare workers beyond Uganda. Our focus was and still is on integrating prevention and clinical management of infectious diseases and emerging health priorities; laboratory systems and diagnostics training; global health security systems; outbreak management and emergency preparedness; and health systems support functions.

In FY 2021/2022, we delivered 39 core courses (60%), reaching more than 1,400 health workers in person and via online and mobile learning courses. We further conducted 3972 distance follow-up and remote technical assistance sessions through the Advanced Treatment Information Center (ATIC) and 1 virtual reality-based training.

A pool of professional instructors from the Uganda Ministry of Health, IDI, Mulago National Referral Hospital, and Makerere University College of Health Sciences delivered the courses.



Joseph Walter Arinaitwe
Deputy Head of Training and
Capacity Development















### Training and Capacity Development Approach

Our approach to training and capacity development is based on the Capacity Building Pyramid Model (Potter C., Brough R., 2004), which provides a framework for our program design and execution. The model recognizes the importance of grounding capacity building in the local environment with its unique gaps and opportunities, resulting in a responsive, tailored, and holistic capacity development approach. Our satisfied clientele base grew from 57,867 to 62,893 in this reporting period.

#### Courses conducted

We delivered over 65 courses categorized into 4 thematic areas: global health security, health system strengthening, laboratory systems, HIV/AIDS, and TB management.

- Key HIV courses include the Advanced HIV Management course, Comprehensive HIV Prevention for Policymakers and Programme Managers, Safe Male Circumcision (SMC), Gender Norms, and Gender-Based Violence.
- Global Health Security courses include antimicrobial stewardship, infection prevention and control, and the manufacture of alcoholbased hand rubs.
- Health system strengthening courses include data management, point-of-care ultrasound scan training, resource mobilization, and grants.
- The Point of Care Ultrasound Scan (POCUS) training is one of the latest courses positively impacting HIV/TB management through increasing detection of extrapulmonary TB (TB of the abdomen), which was missed before the introduction of POCUS. It is destined to play a major role in the implementation of the new WHO policy requiring all pregnant women to take at least one obstetric ultrasound scan by the 28th week of gestation.

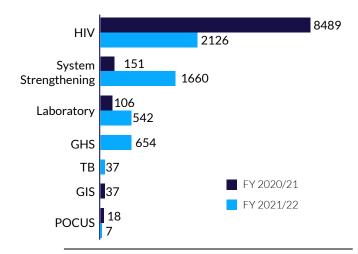


Fig 1: The number of trainees by program area

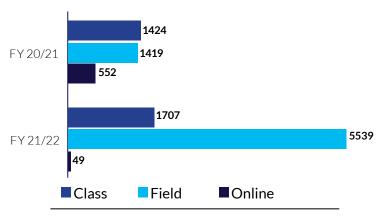


Fig 2: Modes of delivery for training



### Advanced Treatment Information Center (ATIC)

The IDI Training and Capacity Development Programme is home to ATIC, the Advanced Treatment Information Centre. The toll-free call centre is staffed with physicians, pharmacists, laboratory experts, and a network of external health experts who provide real-time health information to healthcare workers across the country. Through the centre, we contribute to the quality of care and treatment by addressing capacity gaps among healthcare workers in Uganda. We also respond to patients and caregivers through the provision of up-to-date health information and linking them to care.

In FY2021/22, the ATIC team responded to 3,166 consultations made by healthcare workers from across the country. Additionally, over 500 patients and caregivers who called into ATIC seeking health information were linked to care and given appropriate information.

### Our Impact



Figure~3: Staff~from~the~Training~Programme~offer~biosafety~training~for~members~of~the~Uganda's~People's~Defense~Forces.

With invaluable support from the Africa Centres for Disease Control (Africa CDC) and the Mastercard Foundation, IDI, through its Training Programme, implemented the Programme for Research on Vaccine Effectiveness (PROVE) project. We delivered physical and online training in REDCap, a comprehensive web and mobile database for collecting and managing research data from 15 African countries.

In collaboration with the University Research Council (URC) and with support from the US Department of Defense, we trained 1,490 military laboratory staff in laboratory biosafety services as part of the DHAPP project. Also, through the "Extension for Community Healthcare Outcomes" project, we monitored and strengthened the 'knowledge retention' of healthcare workers.

We continued to develop capacity in community health through our mobile learning platform, which is tailored to reach village health teams (VHTs). More than 3124 VHTs were reached.

In the context of health hazards and disease outbreaks, the Programme makes capacity development accessible through e-learning (continuity of training). For instance, during the COVID-19 pandemic, we registered significant growth in terms of coverage. We developed six additional online courses to mitigate disruptions in the training of healthcare workers as a result of the lockdowns. We trained 177 healthcare workers through the platform, resulting in a significant increase in the utilization of our e-learning resources, such as the COVID-19 courses and case studies, and increasing our user numbers to over 10,000 by the end of June 2022.

In addition, we expanded the utilization of the IDI e-learning platform into non-traditional training areas, such as the Anti-Sexual Harassment Policy course, which was developed and rolled out to over 1,500 IDI staff, Outbreak Preparedness and Response courses, and laboratory-related courses.

## PREVENTION, CARE AND TREATMENT



**Dr Isaac Lwanga**Head of Prevention, Care and Treatment

In a bid to remain a leading provider of clinical services for HIV and other infectious diseases, the IDI, through its Prevention, Care, and Treatment programme continued to provide high-quality holistic care, leveraging research and capacity building to generate relevant models.

Through our Centre of Excellence in Clinical Care of HIV Patients (CoE), largely informed by research, we generated models of care that match global health policy requirements and post-COVID-19 pandemic needs.

In the reporting period, we implemented our innovative models of care for NCDs, advanced HIV disease, sexual reproductive health, mental health, young adults among others. We continued to build the capacity of our teams through weekly switch meetings, partner and clinical training programmes, pharmacovigilance, journal clubs, and case conferences.

To continue providing premium clinical services and generate operational research evidence for the care of patients living with HIV, we equip the healthcare sites' workforce to scale up proven models of care, further functioning as a continuum of care. This ecosystem continues to produce new, improved, and sustainable health innovations.

**Specialist Workforce:** In FY 2021–2022, we built our capacity to meet the rapidly evolving needs of the Programme. We added 3 specialists to buttress our multi-disciplinary team of physicians, medical officers, pharmacists, and nurses.

The expert team was supported by 7 counselors and 15 volunteers, including expert clients (following the Greater Involvement of Persons with HIV/AIDS (GIPA) principle) and support staff. GIPA is a care model that provides champions patients to as advocates for meaningful participation in the inception, development, implementation, monitoring and evaluation of policies and programmes. It is a rights-based approach, which is recognised as good practice in programming and policy. It acknowledges the universal rights of people living with HIV to self-determination and participation in decisions that affect their lives.

Minimizing disengagement in the clinic contributes to good treatment outcomes. We improved patient retention through the tracking of appointments, reminder calls for all scheduled patients, and community follow- ups for patients who missed appointments. On average, 120 calls were made daily to support patient engagement in care.



**Dr Noela Owarwo Clara**Deputy Head of Prevention, Care
and Treatment















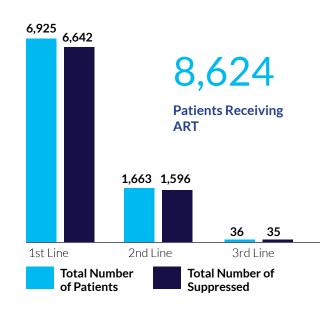


**Ambulatory services:** We provided ambulatory care in our well-equipped urgent care for unwell patients who presented with advanced HIV disease, complicated or unstable non-communicable disease, and acute community-acquired infections, among other conditions. Patients needing in-patient care benefited from ambulance services and follow-up (to ascertain outcomes) while on the ward. A total of 748 patients were reviewed in the Urgent care and 5-10% of them needed admission in this period

### Patient Care and Treatment

Through the COE, we supported all patients to access HIV care including antiretroviral therapy (ART), treatment and prevention and treatment of opportunistic infections. In the reporting period, 8,871 patients were active in care. Of these, 98% maintained ART use while 2% had delayed on ART initiation due to opportunistic infections, such as cryptococcal meningitis and tuberculosis, as per national treatment guidelines.

Overall, we achieved a 95% viral suppression rate in 8273 patients, contributing to the 2nd and 3rd UNAIDS 95-95-95 goals.



### Expanded Access to ART

To minimize uninterrupted service delivery during the Covid pandemic, we identified and situated over 20drug distribution nodes in communities based on previously documented physical addresses of clients. The innovation contributed to global efforts to mitigate the negative effects of COVID-19 on the gains made in controlling HIV/AIDS. Therefore, we set up the community pharmacy model after a pilot of the ART ACCESS program in which 2 community pharmacies enrolled over 600 patients and retained them on this differentiated service delivery model.

### Care for Elderly and Young Adults

A growing number of our patients are aging with HIV while others are already elderly. The older adults clinic enables us to understand existing geriatric syndromes and how these intersect with HIV and HIV care. Young adults have unique challenges and needs that require specific, friendly approaches to boost retention and maximize treatment outcomes and we dedicate a specific clinic day every week to them. The lessons from these clinics equip us better to care for our population as they age with HIV. During this reporting period, 1027 elderly patients and 220 young adults were followed up.

#### Care for Non-Communicable Diseases

PCT runs an integrated service for screening, diagnosis, and management of non-communicable diseases, including mental health, hypertension, renal disease and diabetes mellitus. These services will be expanded to include a pulmonology clinic that will streamline the management of post-TB lung disease and COPD in HIV patients, among other objectives. We managed 1,809 patients for hypertension, 431 for Diabetes mellitus and 113 patients with mental health challenges in this reporting period.

1,809

Patients with hypertension

431

**Patients with diabetes** 

113

Patients with Mental health disease

### Cervical Cancer Screening

Cervical cancer screening is an important intervention we provide as stipulated in the Uganda HIV Treatment Guidelines, to enable early detection and treatment for cervical pre-cancer and prevent the high attributable mortality among female clients. Trained nurses under the Sexual Reproductive Health (SRH) unit provide the service for all women aged 25 to 49 years old, while those over 50 years old are referred to the Uganda Cancer Institute for pap smears.

Cervical cancer screening is done using either the human papillomavirus (HPV) self-sampling or Visual Inspection with Acetic Acid (VIA) screening method, and results are received within a day.

Thanks to our Translation Laboratory, located less than 100 metres from the PCT clinic at Mulago Hospital 2,718 women were screened, 58 were found positive by either method while 13 had suspected cervical cancer and were referred to Uganda Cancer Institute for biopsy. Forty-four postive patients received point of care treatment with thermocoagulation. Ongoing support is needed to support further workup for suspicious cervical lesions and address fear of a cancer diagnosis

#### The Ugandan Academy for Innovation



**Dr Rosalind Parkes Ratanshi**Director of the Academy

Since 2014, IDI's Academy for Health Innovation Uganda has broadened to support technological advances that improve outcomes for maternal and child health, HIV and TB care, Ebola, and more recently, the COVID-19 pandemic.

The COVID-19 pandemic in particular presented a myriad of challenges and opportunities for the Academy team to innovate and improve health systems.

In the reporting period, we set up end-to-end artificial intelligence (AI) and data systems for targeted surveillance and management of COVID-19 and future pandemics. We also transported over 1,000 COVID-19 samples and medical supplies to Adjumani Laboratory in West Nile and Kalangala, respectively, using medical drones.

As a forward-thinking hub for innovations, we organised our annual health innovations conference under the theme "Collaborating to Transform: Lessons Learned from the Pandemic". The event provided the opportunity for more than 200 young innovators, health workers, and entrepreneurs to share their ideas and visions.

We are excited about some of our new projects coming on board, such as the African Hub for Artificial Intelligence in Sexual, Reproductive, and Maternal Health. Besides preparing the rollout of Call for Life (an internally developed interactive voice response system) to other African countries through the CDC PROVE Project, we are committed to completing our first mobile phone app for the Clinton Health Access Initiative to support healthcare workers in managing advanced HIV infection. We are also rolling out the PEPFAR-supported ARTAccess<sup>TM</sup> application countrywide to support pharmacy refills of antiretrovirals supported by PEPFAR.

The Academy benefitted from the generosity of multiple funders and supporters, as well as the passionate and dedicated efforts of its staff, partners, and stakeholders, including Makerere University and the Ministry of Health. It was also served by an Advisory Board which provided strategic support and guidance. With the support of all these stakeholders, we look forward to increasing our capacity to take more innovative products and services to scale.



**Dr Ruth Obaikol**Deputy Director of the
Academy











94,005

**Patients Reached** 

Abstract Conference
Presentations submitted

11,465

Healthcare workers Trained

17
Projects
Running

43

Publications Published

11 Innovations Created

#### Hub for Artificial Intelligence in Maternal Sexual & Reproductive Health

With support from the International Development Research Centre (IDRC) and the Swedish International Development Cooperation Agency (SIDA), the Academy, through its Hub for Artificial Intelligence in Maternal, Sexual, and Reproductive Health in Sub-Saharan Africa (HASH), established a network of African researchers and organizations to enhance and promote ethical use of AI and data technologies. The hub is currently supporting 10 innovators from across the continent to conduct research and validate their ideas in the key thematic areas of maternal health, sexually transmitted infections (STIs), adolescent sexual reproductive health, and HIV.

#### The Health Innovations Conference

For the third year running, the Academy organized the Health Innovation Conference 2021, bringing together innovators, policymakers, funding agencies, and implementing partners to discuss the critical lessons from the pandemic and leverage technology to address the challenges in the health sector. The two-day virtual conference under the theme "Collaborating to Transform: Lessons Learned from the Pandemic", was officially opened by Dr. Monica Musenero, Minister of Science, Technology, and Innovation.

#### **COAST**

People living with HIV often have non-specific symptoms that can mimic COVID-19. We are developing a Decision Support System (DSS) to aid healthcare workers in determining with precision which people living with HIV need to have a COVID-19 test. To date, a prototype that mimics AI importance has been developed that demonstrates that AI and machine learning tools can be used to aid health workers' precision in determining who should go for a COVID-19 test.

#### **Medical Drones**

The Academy is evaluating the use of drone technology to solve geographical barriers that make access and delivery of healthcare services particularly difficult in hard-to-reach areas. A major demonstration of our rapidly developing drone capacity in FY2021-2022, was the delivery of 675 biological samples (674 COVID-19 and 1 serum) by drone from Moyo Hospital to the COVID-19 testing lab in Adjumani Hospital, covering a distance of 528km.

This accounts for 37.08% of the total distance of 1424 km for all the drone flights conducted in West Nile in the reporting period. We will continue to test the feasibility of using drones for even more challenging tasks in a healthcare setting.



# CORE LABORATORY



John Bosco Kafuufu
Laboratory Administrative
Director

The IDI Core lab is a CAP-accredited laboratory. It adheres to accreditation requirements which foster quality, accuracy and reliability of laboratory results for making clinical decisions and credibility of clinical trials.

The lab participates in proficiency testing (PT) programs provided by CAP and other alternative external quality assessment providers such as; United Kingdom National External Quality Assessment Service (UK NEQAS), Virology Quality Assurance Program (VQA) of Duke University, One world accuracy (OWA), MyQA program and Uganda Ministry of Health UVRI. The annual average PT performance score is excellent at 99% across all tests. The Core laboratory was the first to be accredited by CAP in Uganda in 2003 and has since been accredited to date.

The lab has been accredited for the last 19 years and is licensed to conduct and provide medical laboratory services by the Allied health professional's council (AHP). The IDI Core laboratory is located at the first floor of the Infectious Diseases Core Institute in Mulago Hospital opposite the College of Medical Science of Makerere University. The laboratory offers a full range of screening, diagnostic, safety, and monitoring tests to support clinical trials and patient testing. New tests can be added as needed by the study projects or client demand.

The test categories offered currently include; HIV rapid screening, HIV early infection detection tests, HIV 1/2 deferential & confirmatory tests that include HIV Geenius assay, molecular tests that include HIV RNA, HIV DNA PCR, HIV drug resistance testing, Quantitative Hepatitis DNA, Hepatitis screening tests (Anti HCV, HBsAg, Anti-HBs, Anti-HBc). Other routine tests include Hematology, Clinical chemistry, Flow cytometry.

The lab also offers Biorepository services with the freezer storage capacity of over 2 million sample aliquots. The repository caters for a wide range of storage conditions from ambient temperature to ultralow temperatures (-80°C to -150°C) in mechanical freezers and liquid nitrogen cryopreservation (-190°C) of samples. Samples stored include body fluids such as CSF, blood and its derivatives (whole blood, DBS, Plasma, serum, buffy coat, cell pellets, PBMSCs), hair, Urine, Breast milk and many other sample types. The lab supports research projects that include Investigational new drugs (IND) for HIV and HIV reservoir elimination studies.



**Dr. Kwabena Sarpong**Laboratory Director









In addition to testing, the IDI Core-Lab offers technical support and training to local organizations, educational institutions, students and programs. Technical training programs cover HIV rapid screening algorithms, HIV RNA/DNA, PCR testing, Immunochemistry, HIV Resistance testing, and PBMC isolation. The lab further supports medical technologist training and laboratory diagnostic training for physician / healthcare workers.

112,277

Samples tested at the IDI Core Lab between July 2021 to June 2022

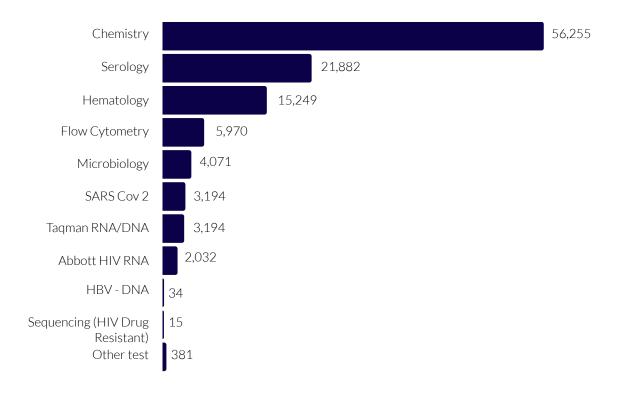
The lab staff and management strictly follow Good Clinical Laboratory Practice (GCLP) guidelines in their conduct of clinical laboratory testing for both diagnostic and clinical trial testing. The lab participates in the laboratory GCLP audits conducted by Pharmaceutical product development (PPD) which are conducted annually. The general GCLP audit helps to check the laboratory's compliance to the laboratory GCLP guidelines during the conduct of clinical trial testing support. The audits also strengthen staff capacity and help to improve lab systems.

The laboratory always strives to improve and manage quality by setting annual quality indicators which are monitored and evaluated monthly through the Quality Improvement Program (QIP). The performance indicators that are outside the set target or thresholds, are investigated in order to perform corrective and preventive actions (CAPAs) where applicable.



Fig 1: IDI Core lab has had CAP accreditation from 2003 up to date

#### Number of Tests done in FY2021/2022



# HUMAN RESOURCE



Paul Rumanda Rugambwa Head of Human Resources

FY2021/22 was a year in which the world grappled with the effects of the COVID-19 Pandemic. This affected IDI and its staff, together with their families, negatively in multiple ways.

The IDI Human Resources (HR) unit continued to deliver on its role within the Institute despite the challenges imposed on it by the century's most significant world health threat.

This year was a milestone for the HR team because it was constituted as a stand-alone department, breaking away from the Finance & Administration department. This was followed by the recruitment of the inaugural Head of Department in the second half of the year which gave the department an opportunity to be more visible and impactful on the organizations' growth and sustainability during the year and beyond.

FY2021/22 was also a year of consolidation for the HR function. The focus was placed on the well-being of our people. The pandemic highlighted several HR challenges within the Institute to which we responded by revising the Safety Health and Environment (OSHE) policy, a review of our Human Resource policy and the transition to a Provident fund for all our full-time equivalent (FTE) staff.

At IDI, we are committed to our value of care and promoting diversity, equity, and inclusion from the point of hire to create a well-rounded and balanced team, hence, the creation of a Human Resource Department with a focus on our People and Culture. I am to be part of this team focused on seeing an Africa free from the burden of Infectious Diseases

#### **Head of Department Profile:**

Paul Rumanda Rugambwa is the inaugural head of the Human Resources department after it was curved out of the Finance and Administration Department, where it had been nestled for the past 19 years.

Paul brings along 17 years of experience in HR practice and leadership from the private sector across East and Southern Africa.





















In recent years, the Infectious Diseases Institute (IDI) in Uganda has witnessed a remarkable and sustained growth in its staff numbers. The increase in staff members, comprising a diverse and skilled workforce, has significantly enhanced the institute's capacity to tackle the complex challenges posed by infectious diseases in Uganda and beyond.

2568
Staff in FY

2021/22

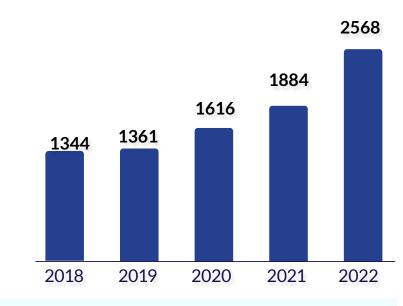


Fig 1: Growth in staff numbers over the years

#### Diversity, Equity, and Inclusion (DE&I)

Diversity, equity, and inclusion are three closely linked values held by many organizations that are working to be supportive of different groups of individuals, including people of different races, ethnicities, religions, abilities, and genders. Variety, as they say, is the spice of life. At IDI, we are committed to promoting diversity, equity, and inclusion from the point of hire to create a wellrounded and balanced team.

IDI age profile
As of June 2022, IDI had
2,568 staff, with GenX
constituting the largest age
group. The Human Resources
function has tailored
staff capacity-building
opportunities to meet the
needs of all its staff.

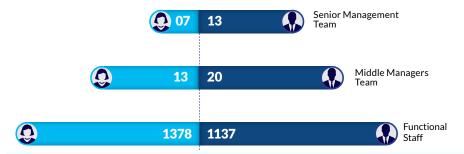


Fig 2: Staff composition by gender in FY 2021/22

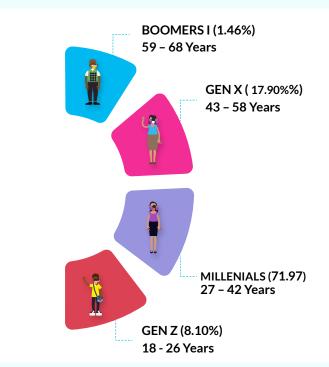


Fig 3: Staff composition by age in FY 2021/22

#### Learning and Development

At IDI, we continue to invest in our staff growth and development, not only to stay competitive and encourage innovation and creativity but also to motivate and retain talent. In 2022, we focused on providing learning opportunities for employees at all levels. We expanded our training programmes, both in-person and through digital platforms, to cater to the diverse needs of our workforce.

1791

We are committed to encouraging a culture of continuous learning as a strategy to promote internal knowledge sharing and professional certification.

#### Occupational Health and Safety Environment

The Institute recognizes the importance of a sound structure policy in ensuring a healthy and safe environment for the staff. To effectively implement all relevant environmental and occupational health and safety standards, an OHSE policy was developed together with a manual on health waste management, formalizing the required mandate and framework.

With the support of a consultant, a legal compliance register for OSHE was initiated, along with risk assessments and the orientation of the inaugural OSHE committee to ensure continued compliance and continuous improvement in all IDI operations. In the reporting year, we registered 21 OHSE incidents, most of them minor injuries, except for a road accident that claimed a staff member.

#### **Employee Engagement and Wellbeing**

In line with IDI values and vision, we reviewed our HR manual to comply with new legal requirements, align with best practices, and create an environment where our people feel valued, motivated, and engaged. Some of the policies we created or modified included Gender Equality and Inclusion, Anti-Slavery, Volunteer Policy, Remote Working, and Provident Fund. Worth noting was the leave policy that we revised to allow mothers who give birth to more than one child to take an additional 30 days.

Following these amendments, the HR Team conducted clinics to sensitize staff on various policies. In April 2022, Dr. Andrew Kambugu, Executive Director, accompanied by Paul Rumanda Rugambwa, Head of HR, visited our regional offices in Karamoja and West Nile, providing an opportunity for field staff to interact and share their experiences with the leadership.

#### Compensation and Benefits

In July 2021, we transitioned from a gratuity scheme to a provident fund following the Board's approval. In March 2022, EnWealth Financial Services was appointed as a fund manager. The provident fund is part of the Institute's strategy to help staff have a solid financial landing on retirement or the end of employment with the Institute.

# INFORMATION SERVICES



**Richard Ssenono Ag. Head Information Services** 









The IS department keeps abreast with emerging developments in Information technology (IT) at a national, regional, and international level in order to support IDI business processes and programme activities. We work closely with international collaborators such as Charter Canada (for system/network design and roll-out), Oculus IT-USA (for 24/7 network monitoring and security), Microsoft, Cisco, HP among others to benchmark and apply innovative technologies that meet IDI's needs.

The IS department also spearheads IDI's efforts to implement a continuous 'Digital Transformation" agenda that sustainably maximizes utility and efficiency. The Institute embarked on its first major network infrastructure overhaul in over 15 years as a first step to improving its entire IT environment. This involved reconfiguration and replacement of storage, processing and switching systems to serve IDI's needs for the medium to long term.

The improved infrastructure has the capacity to support numerous in-house and off-the-shelf software, such as the Integrated Clinical Enterprise Application (ICEA), the Navision Dynamics ERP (Enterprise Resource Planning), TeamMate Audit, Grants Expenditure Management System (GEMS), Human Resources Management Information System (HRMIS). In FY2021-2022, we optimized the management and use of these systems by giving priority to supporting, integration, visualization, data modeling and big data analytics.

## Digital Transformation at IDI: Advancing Healthcare through Innovation

In 2019, the IDI Board endorsed management's plan to start systematically addressing weaknesses in the IT systems in a phased manner to cover hardware, software, internet bandwidth, storage, security, support and related systems. Management engaged an external (Canadian) IT/IS consultancy firm, Charter Inc to advise on a network infrastructure overhaul. After further reviews in 2020, the Board recommended a broader digitalization effort to make IDI systems more efficient and comparable to current best practices. Despite a hiatus caused by the COVID outbreak, the hardware infrastructure overhaul is close to completion. The digitalization/digital transformation process has taken longer than planned to begin in earnest, due to technical difficulties, but is being revamped.

#### Network infrastructure overhaul

The network infrastructure overhaul consists of three (3) phases:

Phase I (Basic Infrastructure refresh): This aimed at reviewing current systems configurations, developing best practice recommendations to increase network performance between Mulago and MKC Data centers (thereby increasing speed ten-fold) and swapping out end-of-life network equipment serving critical roles (such as core/aggregation) with newer devices.. Phase 1 was successfully completed and all upgrades performed to expectations.

Phase 2: Network Optimization: This involved the procurement of major switches and other network equipment with remote support by Charter in order to provide for medium /long term medium institutional growth needs. This expected to be completed in FY 2023/2024.

Phase 3: This will provide for long-term needs.



#### **Digital Transformation and Automation**

The Digitalization Process is anticipated to have the following phases o.

Task 1: Enterprise-wide Digitalization Needs Assessment: A preliminary desk analysis of IDI programmes, functions and business processes, followed by a detailed needs assessment and workplan with prioritized items based on quantified value/impact on business efficiency and effectiveness

Task 2: Targeted Innovation: Requirements gathering, co-designing with users and contextualization

Task 3: Implementation: Digitizing for scale, testing for stress, security and reliability, and frictionless launching and maintenance

**Task 4:** Change Management: Managing adoption, iterations for agility and de-risking the future with knowledge management

Implementation has been delayed by technical limitations in execution of Task 1 but will begin in earnest during FY 2023/2024.

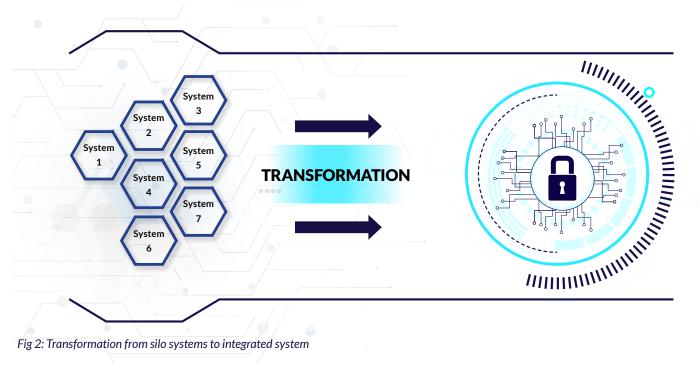


Fig 2: Transformation from silo systems to integrated system

#### **Knowledge Management**

The Data Management team upgraded the Open Data Kit (ODK) aggregate server (used from 2017 to 2022) to Open Data Kit (ODK) Central server, which is a web-based platform, designed to manage and streamline data collection processes for the variety of projects in IDI. IDI ODK Central currently houses 14 projects, 51 tools for data collection and 16 users with regulated access control.

ODK Central has provided real-time monitoring and tracking of data collection activities. Project coordinators and managers can view the progress of data collection, monitor data quality, and address any issues that arise during the process. ODK central has been integrated with Microsoft PowerBI to provide dashboards, which are accessible to the users and inform evidence-based decisions.



Fig 1: The flow of information among the programmes and departments with all data managed by the IS department

## **SUPPLY CHAIN**

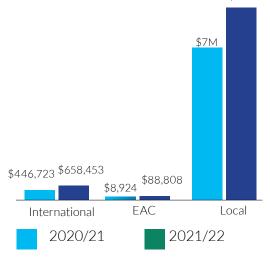
The IDI supply chain is focused on sustainability, resilience, cost management, and closer supplier relationships to ensure that we meet today's and future supply chain needs at IDI. The Institute remains committed to strengthening partnerships with all stakeholders and contributing to the local economy through a transparent and competitive process.

Procurement spend by region: Local procurement not only improves the livelihoods of the local community and supports the local economy through trade and the creation of employment opportunities but also reduces the impact of procurement and logistics activities on the environment through the reduction of emissions from longer shipment and delivery routes, handling, and haulage operations.

#### **Order Processing**

To reduce order processing time and improve user experiences, the warehouse leadership instituted order processing time targets and trained the teams to improve efficiency.

In FY21/22, the orders processed within the set target at the warehouse improved from 90.55% in the previous financial year to 97.03%, registering a 6.48% improvement.



\$8.8M

Fig 1: Procurement spend by region

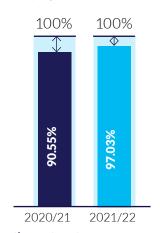


Fig 2: Order processing time vs targets

#### Inventory

We continue to improve inventory accuracy, as evidenced by a stock bin accuracy score of 83.7% in FY 2021-2022, compared to 80.6% in the previous year. This was possible because of enhanced strategies, including staff training, cycle counting, and process standardization.

In 2021, the institute purchased a fully electric forklift for its warehouse operations, improving environmental sustainability, speed, efficiency, and staff health and safety.



## **OPERATIONS**

Energy is one of the key drivers of any economy. The growth of IDI operations has increased the energy consumption. In order to meet the increased demand, we implemented several initiatives to ensure that the energy supply was sufficient, clean, stable, and affordable for our operations.

#### PHASE 1

In 2021–2022, we conducted an energy audit at IDI facilities at Mulago and Makerere University and recommended an upgrade of the power infrastructure for future energy demands. As a result, we installed capacity banks to ascertain power stability, capacity, and consumption.

#### PHASE 2

At this stage, the upgrades involved the replacement of old and under-capacity power infrastructure (400 amps) with a new and bigger capacity (800 amps), eliminating power wastage, and improving the information services power backup system in the server room from 10 kVA to 30 kVA capacity.

#### PHASE 3

Like in Phase 2, we replaced old and under-capacity power infrastructure (400 amps) with a new and bigger capacity (800 amps) and upgraded the power stabilizer unit from 210 kVA to 500 kVA to eliminate power surges and losses.

#### PHASE 4

We continued monitoring the performance of the power systems.
We are geared towards achieving more performance outputs of stability, cost reduction, environmental safeguarding, and elimination of waste, including occupational health and safety improvement.

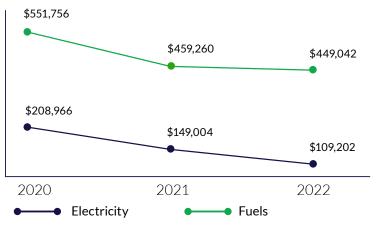


Fig 1: Total spend on energy

#### **Air Circulation**

Due to the continuous growth of the institute, our facilities at Mulago and Makerere University exceeded their capacity for patient volume and occupancy, respectively. In 2021–2022, a review was done, and recommendations were shared with the management.















#### Security

At IDI, security is a priority. In 2021–2022, we upgraded CCTV surveillance capacity around our key facilities at Mulago, Makerere University, and the Warehouse in Ntinda. In addition, we increased skilled personnel to manage security-related issues, thus reducing incidents.

#### Fleet Management

We prioritize brand-new vehicles with lower engine capacities (2.2–2.8 cc) in our fleet, significantly minimizing fuel consumption and carbon emissions. We have introduced electric vehicles into our fleet as part of our long-term strategy to protect the environment. Plus, a fleet management system has reduced the cost of fuel, maintenance, and road incidents and offenses.

## **GOVERNANCE**

The IDI Board of Directors is a dynamic and dedicated body, comprised of 12 distinguished members who bring a wealth of expertise, experience, and passion to our organization's governance. This diversity of thought and background is essential in guiding our strategic vision and ensuring that IDI remains at the forefront of the fight against infectious diseases.



#### Board Sub-committees

The Board meets three times annually and has an Audit Committee (oversees IDI's financial health), Programmes Committee (oversees programmatic direction) and a Nominations Committee (nominates new Board members for the company members' approval).



acquisition and sustainability of IDI

programs

of risks and prudent but strategic use

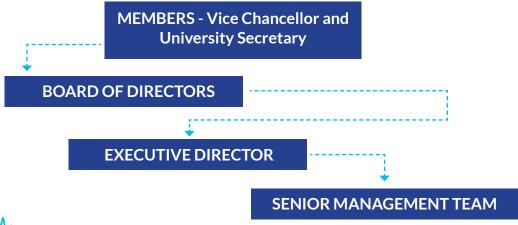
of IDI resources

#### Governance Structure

objectives as well as to represent its

major stakeholders

Infectious Diseases Institute is a non-profit company limited by guarantee (without shares). Makerere University ownership of IDI is exercised through the Offices of the University Vice Chancellor and the University Secretary who are the members of the company. The Board Chair and Executive Director report to the company members at an annual General meeting. The Board appoints and supervises the Executive Director, while providing strategic direction for the entire Senior Management Team.





Samuel Abimerech Luboga

#### **IDI** Board Chairperson Executive Director, Sustainable Leadership Institute Chairperson Education Service Commission Associate Professor (ret.)

Makerere University



Wilfred **Griekspoor Board Audit Committee** Chair Director Emeritus McKinsey & Company Amsterdam, Netherlands



Kizza Professor of Medicine, College of Health Sciences, Makerere University



Henry **Mwebesa** Director General Health Services, Ministry of Health



Milly **Katana Board Audit Committee** Member Director, Senior Support Services



**Alex Opio** Public Health Consultant & Researcher Medireal



**Chakaya** Executive Director, Kenya Association for the Prevention of Tuberculosis and Lung Disease



Yuka **Manabe Program Committee Chair** Professor of Medicine, Division of Infectious Diseases School of Medicine, Associate Director of Global Health Research and Innovation Johns Hopkins University



Moses R. **Joloba** Professor of Molecular Biology, Immunology and Microbiology Dean, School of Biomedical Sciences Makerere University



Lubinga **Board Audit Committee** Member Executive Director Singo United Investments



Kakumba Associate Professor and First Deputy Vice Chancellor (Academic Affairs) at Makerere University



**Charles Ibingira** Professor of Anatomy Makerere University

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# INDEPENDENT AUDITORS' REPORT TO THE DIRECTORS OF INFECTIOUS DISEASES INSTITUTE LIMITED

#### Opinion

We have audited the accompanying financial statements of Infectious Diseases Institute Limited, set out on pages 9 to 38, which comprise the statement of financial position as at 30 June 2022, and the statement of profit or loss and other comprehensive income, statement of changes in reserves and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion the accompanying financial statements give a true and fair view of the state of financial affairs of Infectious Diseases Institute Limited as at 30 June 2022 and of its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards.

#### **Basis of Opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibility under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the Institute of Certified Public Accountants of Uganda Code of ethics (ICPAU Code of Ethics), which is consistent with the International Ethics Standards Board for Accountants Code of Ethics for Professional Accountants, together with other ethical requirements that are relevant to our audit of the financial statements in Uganda, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Other Information

The Directors are responsible for the other information, which comprises the "Report of Directors". The other information does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

Practicing accountants: N. Kagoro A. N. Muraya\* F. Okwiri\* P. Ssali \*Kenyan Associate of Deloitte Africa, a member of Deloitte Touche Tohmatsu Limited

The firm is licensed and regulated by Institute of Certified Public Accountants Of Uganda

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## INDEPENDENT AUDITORS' REPORT TO THE DIRECTORS OF INFECTIOUS DISEASES INSTITUTE LIMITED (CONTINUED)

#### Other Information (Continued)

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

#### Responsibilities of Directors for the Financial Statements

The Directors are responsible for the preparation of financial statements that give a true and fair view in accordance with International Financial Reporting Standards, and in the manner required by the Ugandan Companies' Act 2012 and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Directors are responsible for overseeing the Company's financial reporting process.

#### Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud
  or error, design and perform audit procedures responsive to those risks, and obtain audit evidence
  that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material
  misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve
  collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures
  that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the
  effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

#### INDEPENDENT AUDITORS' REPORT TO THE DIRECTORS OF INFECTIOUS DISEASES INSTITUTE LIMITED (CONTINUED)

#### Auditor's Responsibilities for the Audit of the Financial Statements (Continued)

- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

#### Report on Other Legal and Regulatory Requirements

The Ugandan Companies' Act, 2012 requires that in carrying out our audit we consider and report to you on the following matters. We confirm that:

- · We have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of our audit;
- In our opinion proper books of account have been kept by the Company, so far as appears from our examination of those books; and
- The Company's statement of financial position and statement of comprehensive income are in agreement with the books of account.

The Engagement Director responsible for the audit resulting in this independent auditor's report is CPA Paul Ssali Practice Number P0508.

Certified Public Accountant of Uganda

December

2022

De laite & Touche

Kampala

8

**Associate Director** 

#### INFECTIOUS DISEASES INSTITUTE LIMITED

# STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 30 JUNE 2022

		2022	2021
	Note	US\$	US\$
la			
Income		00 60 0 0 000	
Grant income	4	61,259,254	56,058,227
Self- generated income	5	3,883,904	3,531,269
Interest income	-	26,322	25,972
Total income		65,169,480	59,615,468
Expenditure			
Salaries and benefits	7	24,566,743	22,324,002
Program expenses	8	29,046,591	26,234,288
Transportation	9	3,358,236	3,947,904
Office expenses	10	1,708,947	1,391,432
Facilities expenses	11	3,030,642	2,656,346
Administration expenses	12	1,856,133	2,131,689
Direct laboratory tests	13	539,870	471,641
Foreign exchange loss gain	14	(2,222)	(34,720)
Total expenditure	_	64,104,940	59,122,582
Surplus for the year	_	1,064,540	492,886
Other comprehensive income	_	<u>-</u> 6	
Total comprehensive income for the year		1,064,540	492,886

#### INFECTIOUS DISEASES INSTITUTE LIMITED

# STATEMENT OF FINANCIAL POSITION AT 30 JUNE 2022

	Notes	2022 USD	2021 USD
ASSETS			
Non-current assets			
Property and equipment	15	3,928,211	4,213,337
Right of Use Asset	16(a)	412,496	100,241
		4,340,707	4,313,578
Current assets			
Inventories	17	171,500	258,629
Receivables and prepayments	18	6,156,285	5,032,157
Cash and cash equivalents	19	22,597,301	18,495,323
		28,925,086	23,786,109
Total assets		33,265,793	28,099,687
FUNDS AND LIABILITIES			
Fund Balance			
Accumulated surplus		15,512,538	14,447,998
LIABILITIES			
Non-current liabilities			
Retirement benefit obligation	20	242,172	808,224
Deferred Income	21	13,674,259	10,602,572
Lease Liability	16(b)	273,773	64,848
		14,190,204	11,475,644
Current liabilities			
Payable and accrued expenses	22	3,435,640	2,137,550
Lease Liability	16(b)	127,411	38,495
		3,563,051	2,176,045
Total funds and Liabilities		33,265,793	28,099,687

Chairman Board of Directors

Executive Director

#### INFECTIOUS DISEASES INSTITUTE LIMITED

#### STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE 2022

		2022	2021
		US\$	US\$
Cash flows from operating activities			
Surplus for the year		1,064,540	492,886
Adjustments for:			
Depreciation	15	796,283	733,615
Depreciation-right of use asset	16	70,274	23,550
Retirement benefit expense for the year	20	756,050	709,739
Cash inflows before working capital changes		2,687,147	1,959,790
Changes in working capital			
- Decrease in inventories		87,129	67,206
- (Increase)/decrease in receivables and prepayments		(1,124,128)	2,983,703
- Increase in deferred revenue		3,071,687	3,202,607
- Increase/(decrease) in payables		1,298,090	(960,487)
Cash generated from operations		6,019,925	7,252,819
Retirement benefit obligations paid	20	(1,322,102)	(437,371)
Net cash generated from operations		4,697,823	6,815,448
Cash flows from investing activities			
Purchase of property, plant and equipment	15	(511,157)	(565,641)
Net cash used in investing activities		(511,157)	(565,641)
Cash flow from financing activities			
Interest on lease liabilities	16	42,7123	17,786
Lease payments	16	(127,411)	(38,495)
Net cash outflow from financing activities		(84,688)	(20,709)
Increase in cash and cash equivalents		4,101,978	6,229,098
Cash and cash equivalents at start of the year		18,495,323	12,266,225
Cash and cash equivalents at end of year		22,597,301	18,495,323
Represented by:			
Cash and cash equivalents	19	22,597,301	18,495,323

## **PARTNERS**



























































































































## **ACRONYMS**

ACE Africa Center of Excellence in Bioinformatics

AGM Annual General Meeting
AI Artificial Intelligence

AIDS Acquired Immune Deficiency Syndromes

ART Antiretroviral Therapy

ATIC Advanced Treatment Information Centre

BAC Board Advisory Committee

CAP College of American Pathologists
CAPA Corrective and Preventive Actions

CHS College of Health Sciences

CoE Center of Excellence

COPD Chronic obstructive pulmonary disease
COSO Committee of Sponsoring Organization

COVID-19 Coronavirus Disease

CROI Conference on Retroviruses and Opportunistic Infections

CSF Cerebral Spinal Fluid
CSO Civil Society Organization

DHAPP U.S Department of Defense HIV/AIDS Prevention Programme

DREAMS Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe

EAC East African Community
EQA External Quality Assessment

FY Financial Year
GenX Generation-X

GHS Global Health Security

GIPA Greater Involvement of Persons with HIV/AIDS

GIS Geographical Information System

HEOR Health Economics and Outcomes Research

HIV Human Immunodeficiency Virus

HPV Human Papillomavirus

HSS Health Systems Strengthening

HTN Hypertension IA Internal Audit

IDI Infectious Diseases Institute

IDSR Integrated Diseases Surveillance and Response

IDRC International Development Research Centre

IND Investigational New Drugs

INTEREST Premier Scientific Annual Conference for HIV in Africa

KHP Kampala Region HIV Project

KP Key Population

LPHS-TB Local Partner Health Services-TB

Makerere CHS Makerere College of Health Sciences

MoH Ministry of Health MSc Master of Science

NCDs Non-communicable Diseases

NEQAS National External Quality Assessment Service

NIH National Institute of Health

OHSE Occupational Health and Safety Environment

OWA One World Accuracy

PACT Programme for Accelerated Control of Tuberculosis Karamoja Project

PBMC Peripheral Blood Mononuclear Cells

PCR Polymerase Chain Reaction
PCT Prevention, Care and Treatment

PDC Programs and Development Committee

PEP post-exposure prophylaxis

PEPFAR The U.S. Presidents Emergency Plan for AIDS Relief

PhD Doctor of Philosophy

POCUS Point of Care Ultrasound Scan
PrEP pre-exposure prophylaxis

PROVE Program for Research on Vaccine Effectiveness

QIP Quality Improvement

RNA/DNA Ribonucleic acid/Deoxyribonucleic acid
SIDA Swedish International Development

SMC Safe Male Circumcision

SRH Sexual Reproductive Health

STIs Sexually Transmitted Infections

TB Tuberculosis

UNAIDS Joint United Nations Programme on HIV/AIDS

URC University Research Council
U.S.A United States of America

U.S. CDC U.S. Centers for Disease Control and Prevention

USAID U.S. Agency for International Development

UVRI Uganda Virus Research Institute

VHT Village Health Teams

VIA Visual Inspection with Acetic Acid

VL Viral Load

VQA Virology Quality Assurance Program

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