

KEPhSA RESEARCH HUB

ANNUAL REPORT

YEAR: 2025



Connecting Pharmacy Students with
Research Opportunities

About KEPH SARH

Mission

Provide pharmacy students with a platform to explore, experiment, and excel, ultimately shaping the future of healthcare through their research contributions.

Vision

Empower and inspire the next generation of pharmacy students by establishing a dynamic research hub.

Objectives

- ✓ Provide pharmacy students with access to research facilities and equipment.
- ✓ Offer mentorship and guidance from experienced researchers.
- ✓ Promote collaboration and networking among pharmacy students and researchers.
- ✓ Contribute to the advancement of the pharmacy profession in Kenya.

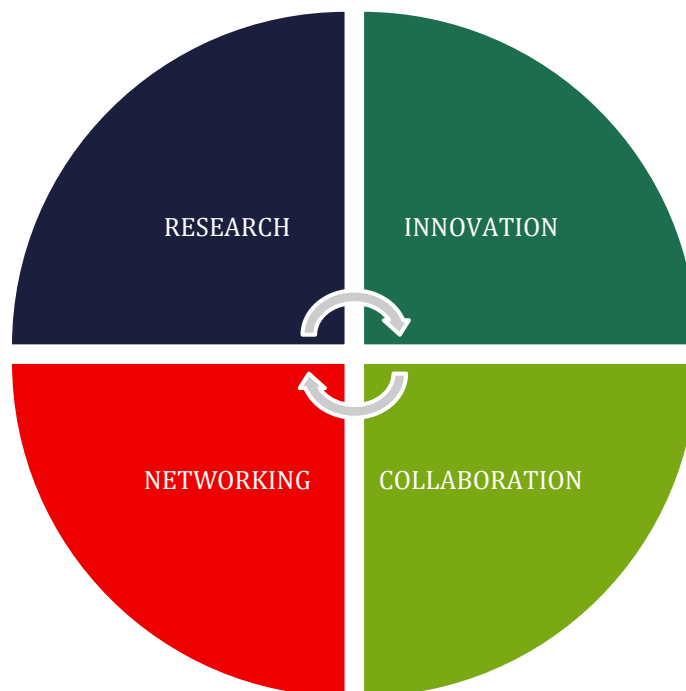


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Team 2025

Chairperson- Allen Gakii

Vice chair- Sylvesters Oyim

Projects coordinator- Samuel Inshutiyimana

Secretary- Nicole Achieng

Treasurer- Immaculate Barongo

KEPhSA liaison- Lihanda Emmanuel

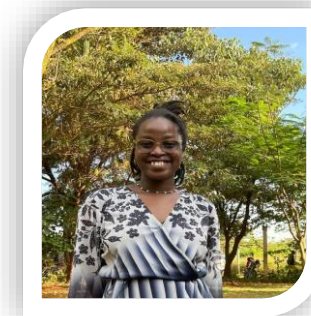
Media & publications officer- Morgan Kwalya



Sylvesters Oyim



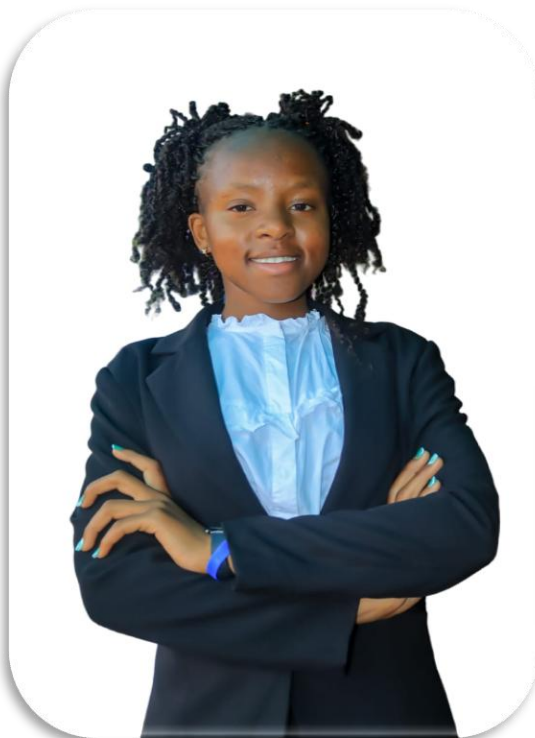
Samuel Inshutiyimana



Nicole Achieng



Lihanda Emmanuel



Allen Gakii



Morgan Kwalya



Immaculate Barongo

Treasurer's Financial Statement

Period: From Registration to 24th September 2025

INCOME

Source	Amount (Ksh)
Membership Registration (56 members × Ksh 200)	11,200

Total Income: 11,200

EXPENDITURES

Date	Description	Amount (Ksh)
10/01/2025	Website branding – Truehost Technologies	579
10/01/2025	Transaction fee	10
24/09/2025	Trophies (3 units: 1,670 + 1,110 + 680)	3,460
24/09/2025	Carrier bag	40
24/09/2025	Transaction fee	57
24/09/2025	Trophy branding (3 × 450)	1,350

Total Expenditures: 5,496

CLOSING BALANCE

Description	Amount (Ksh)
Balance as of 24th September 2025	5,704

REMARKS

- All receipts for the above transactions are attached and properly filed.
- The financial position of KephSA Research Hub remains stable, with funds available for upcoming activities.

Sales Receipt

Cashier: 00YA000
 POS No: 00YA000
 Date: 2025-09-24 19:27:32
 FLOW No: 202509240071

Item	Qty	Price	Amount
Trophy - (30 types of torch 14	1 KES:	1670.00	
0852523007715	1 KES:	1670.00	
Trophy - (31002C Crown Cover -	1 KES:	1110.00	
0852523003174	1 KES:	1110.00	
Trophy/24cm	1 KES:	680.00	
0805117090252-00YA	1 KES:	680.00	
POS FOR BAG (ESTILO 30)	1 KES:	40.00	
W40-00YA	1 KES:	40.00	
Total:			4
Total Qty:			4
Discount Amount:			0.00
Total Tax:			482.76
Final Amount:		KES:	3500.00
Payments:			
spesa	KES:	3500.00	
Change			0.00

TEL: 0769 000 999

CHINA SQUARE LIMITED

CHECK

14 Days exchange policy. Please keep your slip and original packaging for exchange. Terms and Conditions applied.

THANK YOU FOR YOUR VISIT

CASH SALE RECEIPT

T-shirts, Hoodies, Mugs, Caps, Water Bottles
 Magazines, Flyers, Posters, Books, Banners
 Stickers, Trophies, Signage And Other Promotional Items

28CREATIVES

Date: 24/09/2025
 Name: Immanuel Kariuki
 Contact: 0702 142 869
 Company: Kephon Research Hub

Item Descriptions	Price	Qty	Amount
Trophy branding	450	3	1350

28CREATIVES LIMITED

24 SEP 2025

P.O. 15102-00106 NAIROBI

Sub Total: 1350
 VAT:
 Total Amount: 1350

SERVICES Graphic Design, High-quality Printing, Bespoke Branding
CLIENTELE Businesses, Corporates, Individuals
WHY CHOOSE US Quality, Custom Solutions, Expertise
CONNECT NOW www.28creatives.co.ke, info@28creatives.co.ke, 0114 550 550

TAA4PHRD84 Confirmed.
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 TECHNOLOGIES LTD for
 account 449425 on 10/1/25 at

Phase I – Research Bootcamp

Facilitators & Topics Covered:

Dr. Gareth Dyke

Topic: Introduction to Research

Dr. Dyke delivered an insightful session on the foundational aspects of academic research. He began by outlining the basics of research, emphasizing its importance in generating new knowledge and driving innovation. The session explored how to formulate clear and focused research questions, a critical step in ensuring the relevance and direction of a study. He also discussed various types of study designs, highlighting how the choice of design depends on the research objectives, available data, and resources. Finally, Dr. Dyke provided a comprehensive overview of the research process lifecycle, from identifying a research problem to designing the methodology, collecting and analyzing data, interpreting results, and disseminating findings. The talk served as a valuable introduction for those new to research and reinforced key principles for more experienced attendees.

Dr. Norhayati M. Farm

Topic: Literature Review

Dr. Norhayati delivered a comprehensive session on conducting an effective literature review. She began by emphasizing the importance of identifying credible and relevant sources, guiding participants on how to evaluate the reliability of academic publications, databases, and other scholarly materials. The session also covered strategies for synthesizing existing research, highlighting the need to identify patterns, gaps, and emerging themes across studies. Dr. Norhayati introduced tools and techniques for citation management, including the use of reference managers to organize and format citations efficiently. Finally, she explained how to develop a coherent review structure, ensuring that the literature review flows logically and supports the overarching research question. The session provided both theoretical insights and practical tools essential for producing a well-structured and academically rigorous literature review.

Dr. Semira Beshir

Topic: Systematic Review

Dr. Semira Beshir conducted a detailed and informative session on the process of conducting a systematic review. She began by explaining the significance of protocol development, stressing the importance of establishing a clear and structured plan before beginning the review to ensure transparency and reproducibility. She then introduced the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, outlining how they provide a comprehensive framework for reporting systematic reviews. Dr. Semira also covered techniques for evidence synthesis, discussing how to critically analyze and integrate findings from multiple studies to draw meaningful conclusions. In addition, she provided practical guidance on database searching strategies, including how to develop effective search strings, select appropriate databases, and manage search results systematically. The session offered valuable insights for researchers aiming to conduct high-quality, evidence-based reviews.

Dr. Samuel Mungai

Topic: Sampling and Data Collection

Dr. Samuel Mungai delivered an engaging session focused on the practical and ethical aspects of sampling and data collection in research. He began by outlining various sampling techniques, including probability and non-probability methods, and emphasized how selecting the right sampling approach is crucial for ensuring the validity and generalizability of research findings. The session also explored different data collection methods, such as surveys, interviews, focus groups, and observations, with a focus on choosing methods that align with research objectives. Dr. Mungai highlighted the importance of ethical considerations in data handling, including informed consent, confidentiality, and responsible data storage and sharing. Additionally, he addressed strategies for ensuring data quality, such as pilot testing instruments, training data collectors, and implementing quality control measures throughout the data collection process. The session provided essential guidance for conducting robust, ethical, and high-quality research.



KEPhSARH DATA ANALYSIS BOOTCAMP

4 WEEKS INTENSIVE ONLINE BOOTCAMP

LEARN ► **SPSS**



OBJECTIVE:

Equip participants with the proficiency and confidence to utilize SPSS for analyzing health data and making evidence-based decisions in pharmacy and healthcare research.

Start Date: 26th April

REGISTER: bit.ly/kephsarhatabootcamp

Learn. Innovate. Earn.

eMobi is
Technology Training Institute



Gallery and Trainees feedback

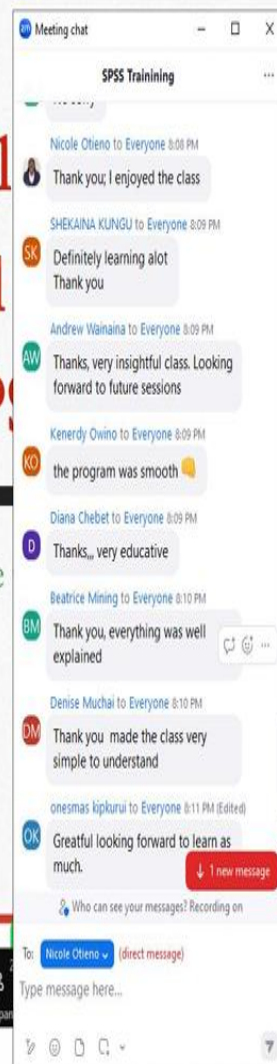


Zablon Mutwiri

Data Analyst, Researcher, Project Manager
& Digital Skills Trainer

Statistical for Social (SPSS)

Learning Course



Target Group

The training targeted **35** trainees from the Pharmacy Students Association of Kenya (KEPhSA) Research Hub.

A	B	C	D	E	F
Kitilit Ktun	kitumvictor@gmail.com	USIU-Africa	Student	Yes	Yes
Koesh Kiplagat	kiplagatglorious11@gmail.com	Kenyatta University	Student	Yes	Yes
Linet Njoroge	linetnjoroge83@gmail.com	Kenyatta University	Student	Yes	Yes
Linus Moreka	lmoreka@kabarak.ac.ke	Kabarak University	Alumni	Yes	Yes
Lora Muruha	wanjikumuruha@gmail.com	USIU-Africa	Student	Yes	Yes
Morgan Kwalya	kwalyamorgan042@gmail.com	USIU-Africa	Student	No	No
Natnael Getachew Hailu	gnati4845@gmail.com	USIU-Africa	Student	Yes	Yes
Nicole Achieng	achiengnicole202@gmail.com	Kabarak University	Student	Yes	Yes
Nicole Otieno	nicoledorcasotieno@gmail.com	Mount Kenya University	Graduate Student	Yes	Yes
Onesmas Kipkurui	kiplaones@gmail.com	USIU-Africa	Student	Yes	Yes
Prudence Akinyi Odhiambo	akinyiprudence816@gmail.com	Maseno University	Student	No	Yes
Samuel Inshutiylimana	inshutisam7@gmail.com	USIU-Africa	Student	Yes	No
Sarah Anyango	sarahonyango001@gmail.com	USIU-Africa	Student	Yes	Yes
Sean Njuguna	sean.stephen.njuguna.irungu@gmail.com	USIU-Africa	Student	No	Yes
Shekaina Kungu	shekainakungu23@gmail.com	Maseno University	Student	Yes	Yes
Stacey Mong'are	mongares39@gmail.com	Kabarak University	Student	Yes	Yes
Sydney Wakhungu	simiyusydney@gmail.com	Kisii University	Student	Yes	Yes
Tabitha Chepkoech	tabithachepkoech339@gmail.com	Kenya Methodist University	Student	Yes	Yes
Tevine Nicole	tevinenicole7@gmail.com	Kisii University	Student	Yes	No
Tracy Cheron	cherontracy735@gmail.com	Maseno University	Student	Yes	Yes

Training Timeline

The training commenced on **26th April 2025** and concluded on **7th June 2025**, comprising a total of **11** dynamic virtual sessions.

Training Modules Covered

Module 1: Introduction to SPSS Statistics

- ✓ *Overview of SPSS and its applications*
- ✓ *Interface and functionalities*
- ✓ *Data and variable view navigation*
- ✓ *Data entry and import from Excel and CSV*
- ✓ *Defining variable types*

Module 2: Descriptive Statistics and Data Visualization

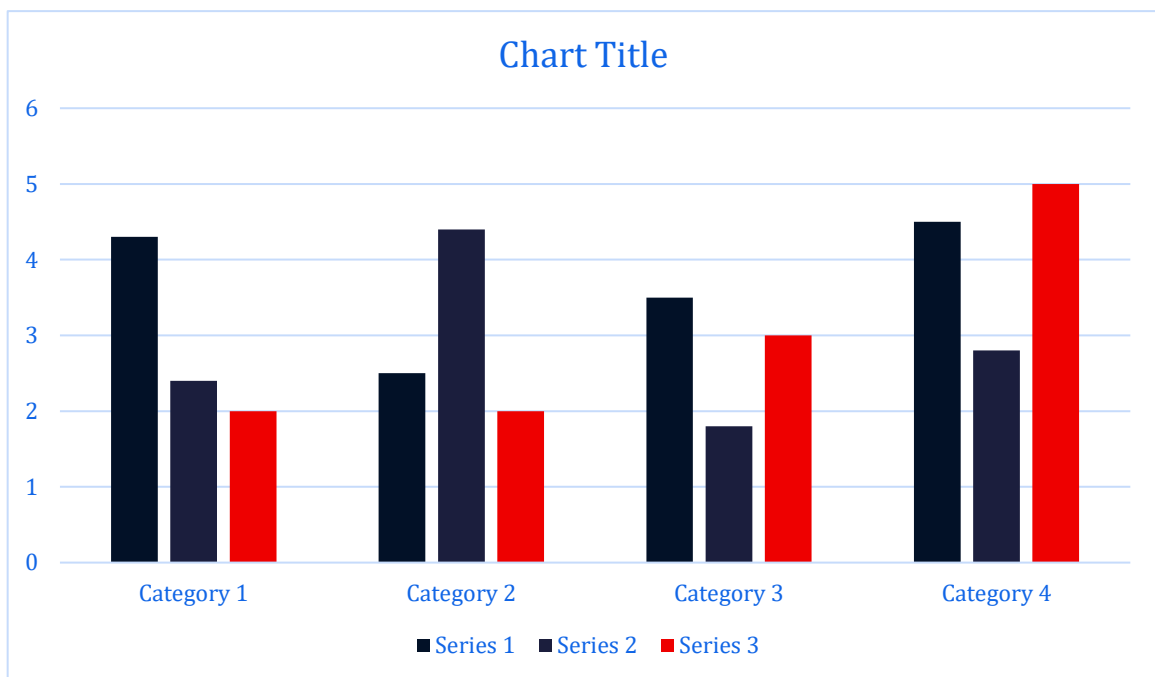
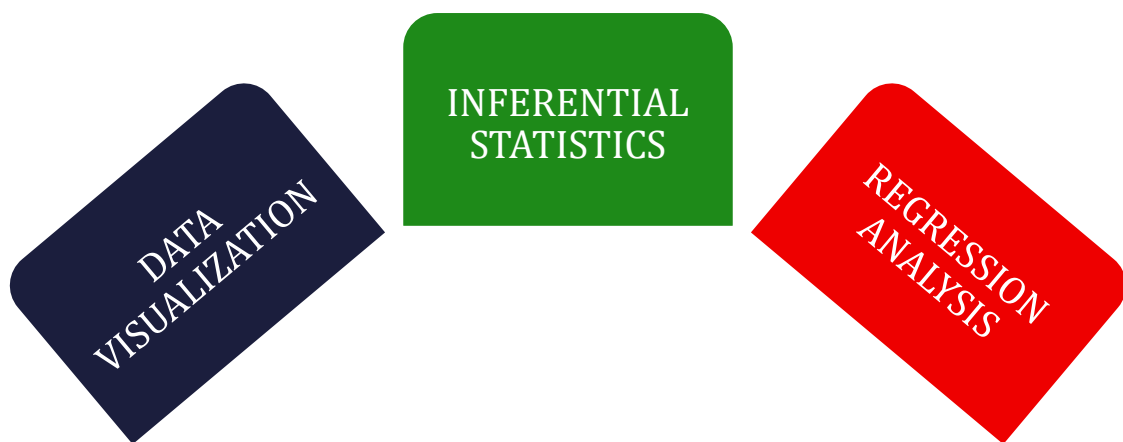
- ✓ *Frequencies, mean, median, mode, standard deviation*
- ✓ *Cross tabulations and summary statistics*
- ✓ *Bar charts, histograms, pie charts*
- ✓ *Boxplots for detecting outliers*

Module 3: Basic Inferential Statistics

- ✓ *Hypothesis testing both parametric and nonparametric*
- ✓ *One sample and independent tests*
- ✓ *Interpretation of p values and confidence intervals*

Module 4: Regression Analysis

- ✓ *Assumptions including linearity, normality, homoscedasticity*
- ✓ *Simple and multiple regression*
- ✓ *Model fit assessment including R squared and adjusted R squared*
- ✓ *SPSS output interpretation and export*



Mode of Delivery

The sessions were primarily conducted virtually via Zoom, supplemented by:

- ✓ *Telegram (organized by Allen) for software sharing*
- ✓ *WhatsApp for updates and troubleshooting*
- ✓ *Google Classroom for: Learning resources, Practice materials & Assessments*



Success Highlights

- ✓ Full coverage of all planned modules
- ✓ Training adapted to various learning styles
- ✓ Trainee confidence with SPSS greatly improved
- ✓ Average attendance rate: **65.9%**
- ✓ **55.6%** of participants achieved at least 80% session attendance
- ✓ **58%** of trainees met or exceeded the 80% pass mark

Challenges

- ✓ Conflicts with regular class schedules
- ✓ Software installation difficulties across multiple operating systems
- ✓ Health related absences including the trainer
- ✓ Two sessions were postponed due to unforeseen circumstances.

Recommendations

- a) Implement strategies aimed at maximizing 100% attendance
- b) eMobilis should provide installation packages compatible with Windows macOS and Linux
- c) Offer both theoretical and practical catch-up sessions for absentees
- d) Extend future sessions by 30 minutes when rescheduling is unavoidable

Spss software recommendation

Recommended Package:

IBM SPSS Statistics Campus Edition – Perpetual License Premium Module

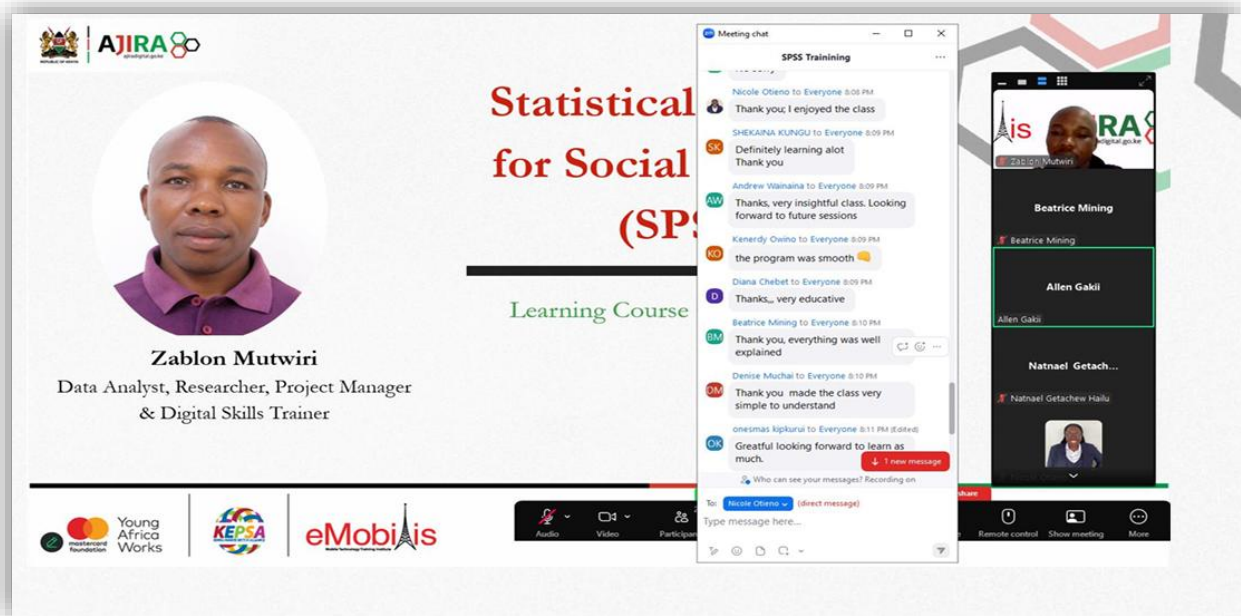
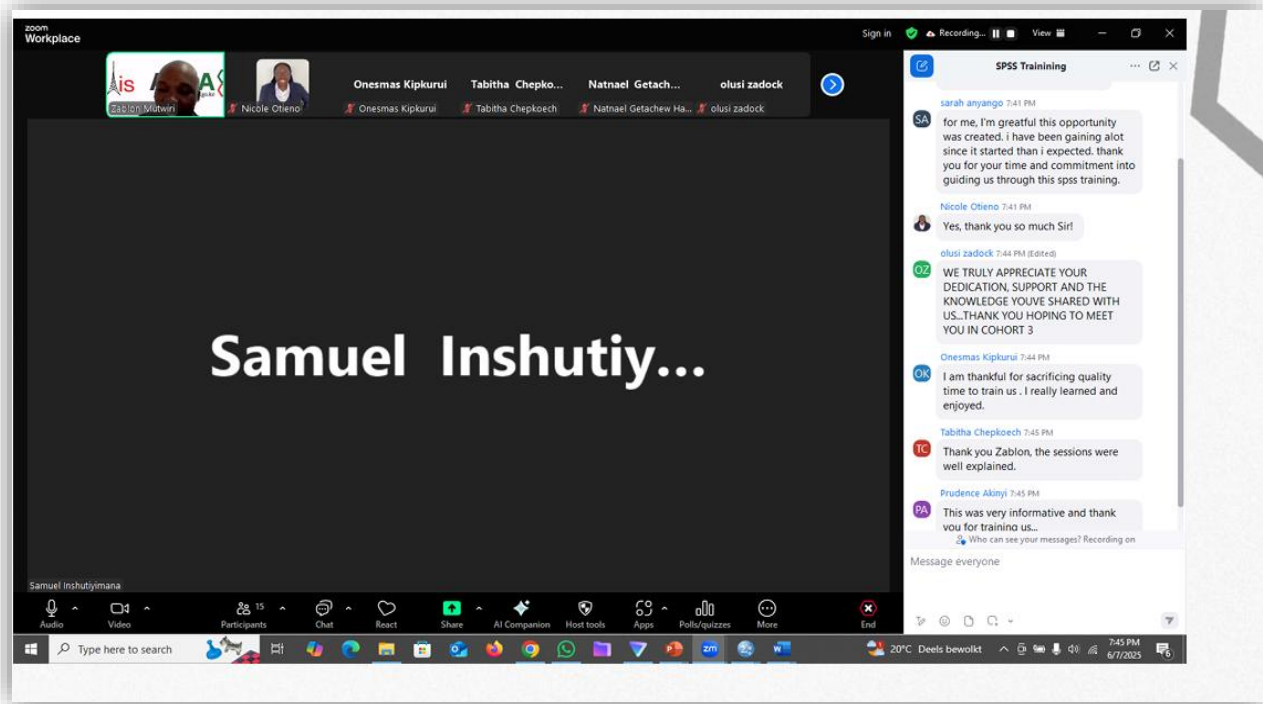
Key Benefits:

- ✓ One time investment with long term usage
- ✓ Includes advanced premium modules

Important Note:

Direct purchase from IBM is **not available in Kenya**. Procurement must be completed through **authorized third-party vendors**.

Gallery and Trainee Feedback





KEPhSA RH QUEST 2.0



Phase III – Research Quest

Overview:

Key Activities:

An online quiz to assess foundational research knowledge and select team leaders. Participants were grouped into three teams: Team A, Team B, and Team C. Each team was tasked with developing an independent research project. The projects are intended for publication and presentation at the World Pharmacists Day (WPD) Conference. This initiative aimed to provide hands-on experience, foster collaboration, and translate theoretical knowledge into practical research outputs.



The poster for KEPhSARH-QUEST 2.0 Round One features a background image of a person in a lab coat and hairnet working at a computer. The top left corner has the KEPhSA logo, and the top right corner has a 'RESEARCH' logo. The main title 'KEPhSARH-QUEST 2.0' is in large, bold, dark red letters. Below it, 'ROUND ONE' is in a dark red rounded rectangle. The 'BEST 3' section is flanked by two purple ribbon icons. The winners are listed in white rounded rectangles: Andrew Wainaina- Kabarak (1st place, gold medal icon), Uwineza Jeanne - USIU (2nd place, silver medal icon), and Prudence Akinyi -Maseno (2nd place, silver medal icon). Below this, 'PROCEEDING PARTICIPANTS' is in a dark red rounded rectangle. The names of the participants are listed in two columns in dark red text.

KEPhSARH-QUEST 2.0

ROUND ONE

BEST 3

1 Andrew Wainaina- Kabarak

2 Uwineza Jeanne - USIU

2 Prudence Akinyi -Maseno

PROCEEDING PARTICIPANTS

**Alaak Majok, Daniel
Tamara Kavithe Kimeu
Andrew Wainaina
Prudence Akinyi
Alice Anyim Alang'o
Natnael Getachew
Kariuki Ian Gitau**

**Elvis Mutero Mwangi
Uwineza Jeanne D'arc
Okoth Zifion Ndiege
Naomi Ahishakiye
Ruth Nthenya Gachie
Kenerdy Owino
Mukabyiringiro Esther**

Achievements

The KEPHSA Research Hub recorded several significant milestones in 2025.

Key achievements include:

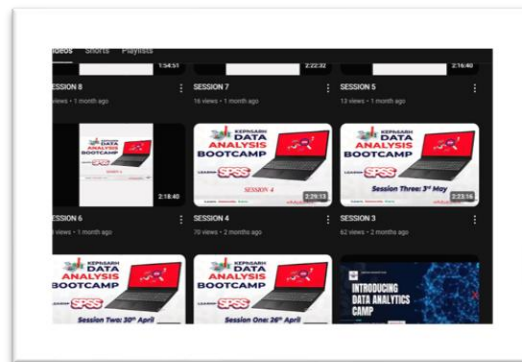
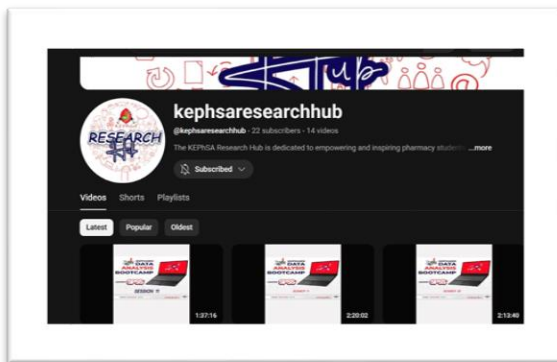
Expanded Digital Presence:

Established a strong footprint on key social media platforms:

LinkedIn- <https://www.linkedin.com/company/kephsaresearchhub>

Instagram- <https://www.instagram.com/kephsaresearchhub/>

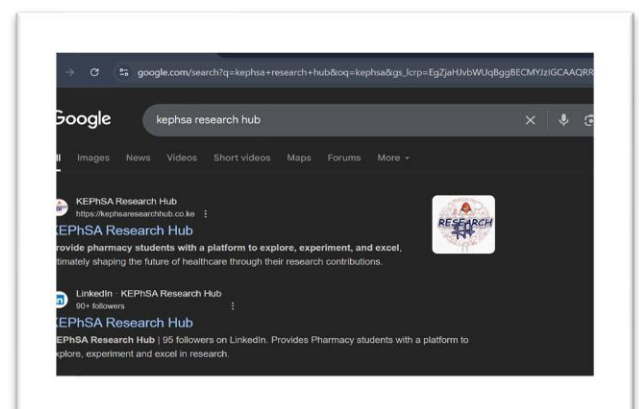
YouTube- <https://www.youtube.com/@kephsaresearchhub> – hosting all recorded SPSS training sessions for public access and review.



Launch of Official Website:

<https://www.kephsaresearchhub.co.ke>

A centralized platform offering access to training resources, research tools, updates, and mentorship opportunities for student researchers.



Summary

SPSS Data Analysis Bootcamp: Trained **35** pharmacy students across 11 intensive sessions on statistical analysis using SPSS.

Research Training Series: Delivered foundational and advanced training sessions to equip students with end-to-end research capabilities.

KEPhSARH Quest: Engaged students in a competitive, real-world research application challenge designed to foster creativity, collaboration, and scientific inquiry.

These achievements underscore KEPhSA RH's commitment to nurturing a research-driven culture among pharmacy students in Kenya.



Acknowledgments

We express our heartfelt gratitude to all individuals and organizations whose support made the 2025 initiatives a success:

Team 2025 Leadership: Prof. Ermias Terefe, Allen Gakii, Sylvesters Oyim, Samuel Inshutiyimana, Nicole Achieng, Immaculate Barongo, Lihanda Emmanuel, and Morgan Kwalya – for their unwavering leadership and organizational excellence.

Research Bootcamp Trainers: Dr Gareth Dyke, Dr Norhayati M Farm, Dr Semira Beshir & Dr Samuel Mungai - For delivering foundational knowledge and mentorship essential to the success of our training programs.

Ajira Digital: For providing partnership support and promoting digital skills development among our trainees.

Zablon Mutwiri: For his dedication and excellence in conducting the SPSS Data Analysis training series.

All Trainees and Participants: For their active engagement, resilience, and commitment to personal and professional growth.

We also acknowledge the KEPHSA community and all our collaborators who continue to believe in and contribute to our mission.

Awards



Appendices

Graduating members 2025

No.	Name	No.	Name
1	Alaak Majok Daniel	24	Natnael Getachew Hailu
2	Alice Anyim Alango	25	Ngwa Sandra Nanga
3	Andeyo Nothando Olembo	26	Onesmas Kipkurui
4	Andrew Wainaina	27	Prudence Akinyi Odhiambo
5	Axella Umuhoza Mugeni	28	Rutendo Nissi Matasva
6	Beatrice Mining	29	Ruth Nthenya
7	Denis Muli	30	Sahra Ahmed Osman
8	Denise Wanjiru Muchai	31	Sarah Anyango
9	Dennisse Flora Jedidah	32	Sean Stephen Njuguna Irungu
10	Diana Chebet	33	Shekaina Kungu
11	Elvis Mutero Mwangi	34	Stacey Mongare
12	Gahimbare Simon Pierre	35	Tabitha Chepkoech Kipkorir
13	Hadassah Kariuki	36	Tamara Kavithe Kimeu
14	Hafsa Shariff Jaffer	37	Tatenda Gwarinda
15	Ian Gitau Kariuki	38	Tevine Nicole
16	Kenerdy Owino	39	Tiffany Wambui Gitunda
17	Kipngeno Haron	40	Tracy Cherop
18	Koech Kiplagat	41	Uwineza Jeanne d’Arc
19	Linet Njoroge	42	Victoria Waithera Gathoni
20	Linus Moreka	43	Zadock Olusi
21	Marylydiah Nyaboke Mong'are	44	Zifion Ndiege
22	Mukabyiringiro Esther	45	Zuena Mubarak
23	Naomi Ahishakiye		

Sample abstracts→ Team A, B & C

Team A

Esther Mukabyiringiro

Andrew Wainaina Kinyanjui

Gachie Ruth Nthenya

Okoth Zifion Ndiege

Alaak Major, Daniel

Team B

Prudence Akinyi Odhiambo

Onyango Sarah Anyango

Natnael Getachew Hailu

Tamara Kavitha Kimeu

Naomi Ahishakiye

Supervisor: Nicole Achieng

Team C

Ian Gitau Kariuki

Morgan Kwalya

Uwineza Jeanne D'arc

Alice Anyim Alango

Elvis Mutero Mwangi

Kernerdy Owino

Strengthening Pharmacogenomics Implementation in Africa: Challenges and Opportunities

LABSTRACT

Background:

Pharmacogenomics (PGx) studies how genetic diversity influence drug response, bringing the potential to personalized treatment, improve therapeutic outcomes and reduces adverse effects of medications. Although PGx integration is progressing at global scale its implementation in Africa faces unique challenges and opportunities.

Objectives:

This review aims to evaluate the current status of PGx in Africa, outlining the challenges to its integration into healthcare systems and highlighting available opportunities for improving personalized medicine across the continent.

Methods

A narrative review was conducted to evaluate pharmacogenomics integrations, infrastructure, and policy frameworks in Africa, through different data bases including PubMed, Google Scholar and gray literature from African health agencies relevant literature and reports were identified. Reports and studies that were published in English between 2020 -2025 were utilized. information on genomics studies, and socio-economic and political factors affecting PGx integration into health care system was extracted and analyzed. the barriers and opportunities were created into practical, stepwise framework for implementation

Results

Significant challenges hinder PGx integration in Africa. Technical barriers include inadequate laboratory infrastructure, insufficient sequencing capacity, and underrepresentation in genomic studies globally. Policy challenges start from the absence of context -specific regulatory

GROUP B

Exploring the Potential Role of Telepharmacy in the Management of Diabetes in Low and Middle-Income Countries: A Narrative Review

ABSTRACT

Background: Low and middle-income countries (LMICs) are disproportionately affected by diabetes mellitus, a chronic illness that poses a major threat to global health. This condition has a significant impact on LMICs because of their inadequate healthcare systems, lack of access to medications, and shortage of qualified pharmacists. One promising tactic for improving access to healthcare in these resource-constrained settings is telepharmacy, which is the use of telecommunication technology to deliver pharmaceutical care remotely.

Aims: This narrative review aimed at exploring the potential use of telepharmacy in managing diabetes by examining and summarizing the relevant existing literature, with the main focus being on the application and benefits of telepharmacy in these settings, the barriers to its implementation, and opportunities to improve it.

Methods: A narrative review was conducted using databases such as PubMed, ResearchGate, and Google Scholar. The keywords used were: telepharmacy, diabetes management, pharmacist-led telecare, medication adherence, and LMICs. Original studies, clinical reports, reviews, and policy briefs that described the pharmacist's role in diabetes care and those that reported some outcomes like glycemic control, adherence, or patient satisfaction published from 2020 to 2025 were included.

Results: Telepharmacy was found to improve accessibility and equity of pharmaceutical care, especially in rural areas during the COVID-19 pandemic. More evidence showed benefits such as improved clinical outcomes, reduced travel costs, shorter wait times, and fewer hospital re-admissions, showing how cost-effective telepharmacy is. Challenges were also noticed, some of them being weak digital infrastructure, regulatory uncertainty, digital illiteracy, and low internet penetration. Finally, hybrid models like SMS and phone calls were found to be context-appropriate and more scalable approaches.

Conclusion: Telepharmacy offers a promising and adaptable strategy to strengthen diabetes management in LMICs by improving access, outcomes, and health system resilience. Policymakers and governments need to address infrastructural and regulatory barriers, invest in workforce training, and develop models that are equitable and financially viable to achieve sustainable impact; therefore, there is a need for further research to determine long-term outcomes and patient experience across diverse LMIC settings.

GROUP C

A narrative review on the use of semaglutide for weight loss in non-diabetic individuals

ABSTRACT

Background: Obesity is an emerging global health concern, and it is strongly associated with high rates of morbidity and mortality. Though lifestyle modification remains the cornerstone of weight management, many individuals struggle to achieve and sustain significant weight loss, thus relying on pharmacological interventions such as semaglutide, a glucagon-like peptide-1 (GLP-1) receptor agonist. Its role in non-diabetic populations, including its efficacy, safety, optimal dosing regimens, and long-term sustainability, requires further evaluation.

Objectives: This review aims to investigate the potential of semaglutide as a therapeutic option for weight loss in non-diabetic populations by evaluating its efficacy and safety profile.

Method: Data was collected through a comprehensive search of scientific databases, including Google Scholar, ScienceDirect, PubMed, and Web of Science via a narrative review search strategy. A total of **29 papers** (articles and reports) were cross-checked and considered during a narrative synthesis of this paper.

Results: Semaglutide consistently achieved substantial weight loss in non-diabetic individuals, averaging 10–15% of baseline body weight, with higher doses producing the greatest effects sustained for up to four years. In addition to weight reduction, improvements were observed in body mass index (BMI), waist circumference, blood pressure, lipid profiles, and inflammatory markers. The main adverse events were gastrointestinal, generally mild and transient, with gallbladder complications reported less frequently. Compared with other GLP-1 agonists such as liraglutide, semaglutide demonstrated superior efficacy, and combination regimens further enhanced outcomes. While bariatric surgery remains the most effective intervention for absolute weight loss, semaglutide offers a non-invasive alternative with clinically meaningful and sustained benefits.

"Research is to see what
everybody else has seen, and to
think what nobody else has
thought."

-

Albert Szent-Gyorgyi (Nobel Prize winner in Physiology or
Medicine)



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