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REPORT

UNIVERSITY OF PRETORIA FACULTY OF HEALTH SCIENCES RESEARCH SUPPORT HUB

2023/2024



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Background

The Faculty of Health Sciences (FHS) Research Support Hub (RH) at the University of Pretoria (UP) was formally launched on 04 July 2023. Spearheaded by the FHS Research Committee (RESCOM), chaired by Prof. Tivani Mashamba-Thompson, Deputy Dean of Research and Postgraduate Studies for FHS, UP, this hub serves as a vital resource for FHS staff and students engaged in research or other scholarly and innovative endeavours. Its primary aim is to provide initial assistance, support, and resources to researchers, aligning its services with those of the UP's Department of Research and Innovation (DRI) while tailoring them to the specific needs of the FHS. Centralizing research support, the RH also organises regular events designed to enhance research, innovation, and scholarly activities, fostering a culture of research productivity and excellence.

By engaging with various UP and FHS structures and stakeholders, including students, staff and committees over two years (2022 and 2023), systemic enablers and barriers to research productivity and research transformation were identified. Following this engagement, the 2022/2023 Faculty RESCOM proposed the Faculty Research Hub. A research support framework was introduced in the FHS Implementation Plan for 2023. The identified enablers include research support staff to provide grants and scholarship support as well as scientific writing and research activity coordination at the faculty level. Stakeholders highlighted systemic barriers such as inadequate access to support for research methods, grantsmanship, and mentorship opportunities. Other barriers were lack of support for article processing changes (APCs), poor faculty-level support for conference attendance, few initiatives to promote the translation of research into policy and practice, inadequate student funding, and wellness for postgraduate students.

Reaching the target goal for research outputs is a priority of the FHS, as is supporting for staff and students to achieve optimal research productivity. This is achieved by the services offered by the FHS RH.

The following services are offered:

1. Scientific and manuscript editing: Researchers are supported in refining the manuscript to meet publication standards. This includes assistance with writing, formatting, proofreading, and ensuring adherence to journal guidelines.
2. Article processing charges: Funding assistance is offered to staff and students who do not have funds available to pay for their publications.
3. Conference funding top-ups: This is a means-tested top-up funding provided to productive FHS students and staff who have a small shortfall, enabling them to present their new research findings for the first time at a conference.
4. Research visibility and impact: The RH supports researchers in maximizing the impact and visibility of their research outputs. This involves strategies for promoting publications through social media, academic networking platforms, or collaboration with communication teams for press releases or media coverage.
5. Research output tracking and reporting: The RH helps to track research outputs, including publications, presentations, patents, and other scholarly achievements. This information is valuable because it is used to apply for subsidies from the Department of Higher Education and Training (DHET).
6. Training and workshops: Researchers receive training and workshops on various aspects of their research.
7. Support for staff applying for NRF ratings through internal review and mentorship.
8. An undergraduate research course to improve undergraduate students' research knowledge and skills in preparation for postgraduate research and the world of work.

9. Grant reporting and dissemination: For funded projects, the RH supports researchers in fulfilling reporting requirements and disseminating research findings to funders, stakeholders, and the broader community.

10. Biostatistical support: Staff and students in the faculty who need biostatistical analyses for their research.

11. The development and implementation of faculty and university level collaboration guidelines were coordinated with FHS RESCOM and DRI.

The RH consists of five staff members, including one Grant Manager, one Scientific Editor, one Research Coordinator, one Biostatistician and one Postgraduate Student Advisor. This team is supported by research assistants and interns. The activities of the RH in 2023/2024 were dedicated to providing excellent research support to students and staff. The following outcome measures were used to assess the successful implementation of the FHS RH:

1. Improved access to support research methods for both students and staff.
2. Streamlined access to grantsmanship support.
3. Enhanced access to research mentorship opportunities.
4. Promotion of research impact and facilitation of translation into policy and practice.
5. The cultivation of an environment conducive to postgraduate success.
6. Increased research productivity.

This report offers an update on the progress made in implementing the FHS RH initiatives presented in line with the desired research outcomes.

Improved access to research methods supports students and staff

Improving access to research methods support for students and staff was identified as a critical priority within the FHS. We organised and delivered a total of 21 research capacity-building sessions focused on improving knowledge research methodologies. We sent out 21 invitations to staff and students in FHS with details of the session topic, the biography of the invited experts, and the workshop webinar synopsis (Figure 1).

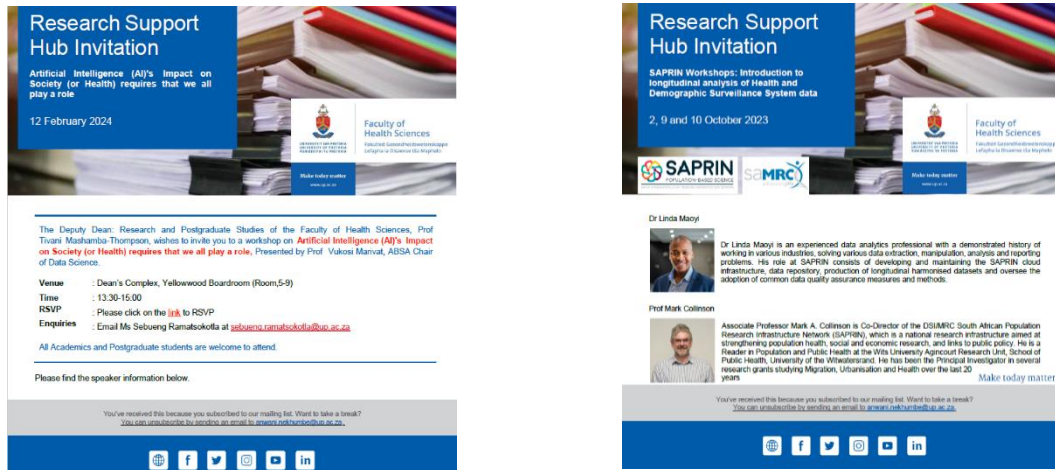


Figure 1. An example of a Faculty of Health Sciences Research Support Hub webinars and workshops advert.

The research capacity-building sessions were delivered in various formats, including online, hybrid, and in-person formats. Snacks were provided for the in-person workshops.

As illustrated in Table 1, a diverse array of research capacity-building initiatives has been offered, encompassing various formats, including online and hybrid delivery (Figure 2), to ensure accessibility for FHS staff and students operating beyond the Prinshof campus. All online and hybrid activities have been recorded and are available for access by all staff and students via the research support hub webpage.

Table 1. Faculty of Health Sciences 2023/2024 Research Capacity Building Sessions

	Date	Session title	Name of facilitator	Department/Faculty/Institution	Mode of delivery (in-person/hybrid/online)	Number of respondents
1	22/06/2023 20/07/2023 24/10/2023	Evidence Synthesis Programme	Prof Tivani Mashamba-Thompson	Faculty of Health Sciences (FHS), University of Pretoria (UP)	Hybrid: Watch webinar here In-person In-person	60
2	28/07/2023	Intellectual Property and Research Commercialization	Ms Refilwe Ngoato	DRI, UP	In-person	44
3	07/09/2023	Researcher Tour - An Exploration of Data Science Methods in Health Sciences	Dr Ropo Ebenezer Ogunsakin	FHS, UP	Online Watch webinar here	39
4	11/09/2023	Structuring a Masters dissertation and PhD thesis by publication	Prof Tivani Mashamba-Thompson	FHS, UP	Online Watch webinar here	84
5	28/09/2023	Use, access and benefits of REDCap for health research	Prof Fourie Joubert and Ms Jeanne van Rensburg	FHS, Faculty of Natural & Agricultural Sciences (NAS), UP	Online Watch webinar here	39
6	02/10/2023 09/10/2023 10/10/2023	SAPRIN Workshops	Dr Linda Maoyi and Prof Mark Collinson	South African Medical Research Council (SAMRC)	In-person	34
7	17/10/2023	Research Odyssey: An Overview on Qualitative Research Methodologies	Dr Maurine Musie	FHS, UP	Online Watch webinar here	72

8	06/11/2023	Artificial intelligence (AI) and machine learning (ML) for Health Science Research	Prof (Din) Ding-Geng Chen	NAS, UP	Online Watch webinar here	85
9	10/11/2023	Meta-analysis Workshop	Prof Alfred Musekiwa	FHS, UP	In-person	22
10	24/11/2023	Discussions between SARCHI in Biostatistics and FHS Research on Collaboration	Prof (Din) Ding-Geng Chen	NAS, UP	In-person	22
11	12/02/2024	Artificial Intelligence (AI)'s Impact on Society (or Health) requires that we all play a role	Prof Vukosi Marivate	Faculty of Engineering, Built Environment & IT (EBIT), UP	In-person	46
12	22/02/2024	Explainable AI for Decision-making in Healthcare: A case study of COVID-19	Prof Olawande Daramola	Faculty of Engineering, Built Environment & IT (EBIT), UP	In-person	11
13	06/03/2024	Grant Writing Workshop	DRI	Department of Research and Innovation (DRI), UP, Limpopo Department of Health and Gauteng Department of	In-person	51
14	24/04/2024	Workshop on EU Calls: Erasmus and Mobility Funding	John Visagie and Itumeleng Njoro	DRI, UP	Online Watch webinar here	26
15	30/04/2024	Responsible use of AI tools for scientific writing webinar	Dr Cheryl Tosh	FHS, UP	Online Watch webinar here	166
16	06/05/2024	STATA Training Workshop	Dr Kuhlula Maluleke	FHS, UP	In-person	124

17	10/05/2024	Chisquare AI-assisted research platform training	Dr Israel Agaku	Chisquare	Online Watch the webinar here	60
18	22/05/2024	The imperative of transdisciplinary health research	Prof Christopher Isike	Faculty of Humanities, UP	In-person	7
19	30/05/2024	Introduction to Experimental Epidemiology	Prof Thorklid Tylleskär	University of Bergen, Norway.	In-person	20

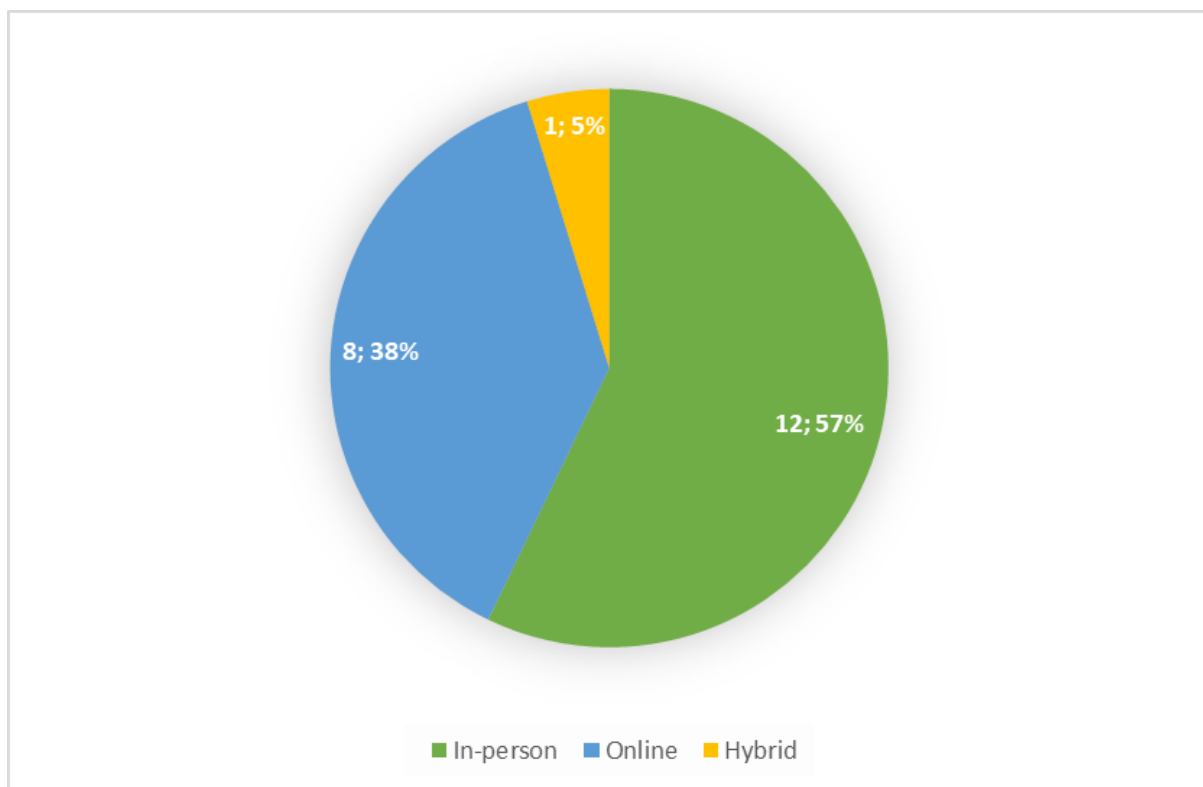


Figure 2: Delivery Format of 2023/2024 Research Capacity Building Sessions

As evidenced by numerous sessions on data science topics (Table 1), one of the hub’s primary focuses for research capacity building in 2023/2024 is data science. Through our series of data science workshops and webinars, we have emphasised the importance of integrating data science into healthcare practices. In our efforts to promote awareness of data science and embrace artificial intelligence (AI) in healthcare, we facilitated a productive interactive session with local and international experts in this field. Our data science efforts were further bolstered by the impactful engagement with the South African Medical Research Council (SAMRC) and the South African Population Research Infrastructure Network (SAPRIN) (Figure 3), who granted FHS access to SAPRIN data for research purposes.



Figure 3. The end of the two-day SAMRC SAPRIN workshop at the Faculty of Health Sciences

Throughout the data science engagements with experts, several key points emerged:

1. Need for Increased access to data platforms: The need for access to data sources and high-quality data is key.
2. AI is here to stay: It is clear that AI is increasingly vital to healthcare and research, with its role expected to expand further.
3. Opportunities, challenges, and risks: We explored the multitude of opportunities AI offers while also acknowledging the challenges and risks it poses in healthcare, research, and education.
4. Barriers and enablers: Both the barriers hindering and the enablers facilitating the appropriate adoption of AI in our work are highlighted.
5. AI readiness: There is a recognised need for technical infrastructure, workforce capabilities, regulatory frameworks, and societal acceptance to support the effective integration of AI.
6. Locally developed AI regulatory laws: Discussions centred on legislative measures to govern the development, deployment, and use of AI technologies, considering contextual factors and vulnerable populations. Concerns such as privacy, fairness, accountability, transparency, and safety were emphasised.

These discussions significantly enhanced our understanding of AI's role in transforming healthcare and research, providing valuable insights into navigating the complexities of integrating AI into our professional environments. This study underscores the importance of research integrity, data security and governance, and meaningful community engagement as foundational principles of robust data science research.

This urgency of research methods support was prompted by numerous complaints lodged with the University and Faculty Research Office and Exco, highlighting the limited availability of biostatistical support for both staff and students. It became evident that this constrained access adversely affected key performance indicators within the faculty, including research outputs and the throughput of postgraduate students. Consequently, the imperative to enhance the quality of proposals submitted to biostatisticians and to establish a sustainable biostatistical support framework for FHS was emphasised.

Faculty-wide biostatistics support

In response to this pressing need, a Faculty Biostatistics support team was assembled. This team comprises a school-level biostatistician, two prescreeners, one biostatistician (responsible for prescreening as well), and one experienced biostatistician at the faculty level, tasked with mentoring interns and providing support to prescreeners to ensure the longevity of these services (Figure 4). The prescreeners, who were volunteers from within the schools, possess expertise in the application of biostatistics within their respective fields and aid in improving proposal quality by conducting initial assessments. Administrative support for the biostatistics team was provided by interns from the FHS RH. A research assistant was allocated to the School of Health Systems and Public Health to assist their in-house biostatistics. In recognition of the importance of qualitative research in health science research, we have also included a qualitative researcher on this team to provide support for qualitative and mixed methods research projects.







 <p>Dr Ropo Ebenezer Ogunsakin Biostatistician for FHS</p>	 <p>Prof Alfred Musekiwa Biostatistician for the School of Health Systems and Public Health</p>	 <p>Dr Maurine Musie Qualitative Researcher and Data Analyst.</p>
 <p>Prof Melvin Ambele Senior Research Officer Screener for School of Dentistry</p>	 <p>Prof Trevor Nyakudya Associate Professor Screener for School of Medicine</p>	 <p>Dr Kuhlula Maluleke Epidemiologist Screener for School of Healthcare Sciences and FHS Biostatistics Intern</p>

Figure 4. FHS 2023/2024 Biostatistics Support Team

Biostatistics plays a pivotal role in scientific research, yet the details of the biostatistical methods utilised in studies often remain incomplete. Insufficient specification of these details can lead to variable quality in the final outcomes. To address this issue, we offer comprehensive biostatistical support to equip medical scientists with the necessary information for accurate analysis and reporting.

The FHS RH at the UP extends its services to research degree students pursuing their Masters Research or PhD degrees, as well as to staff engaged in research. Furthermore, our services cater to individuals undertaking nondegree research projects. The FHS RH is committed to delivering high-quality, efficient, and reliable biostatistics collaboration and support services to foster excellence in education and research.

Our biostatistical assistance and advice encompass various areas, including the following:

1. Research/power and sample size calculations
2. Data management/statistical analysis
3. Research design
4. Interpretation of the statistical results
5. Grant development
6. Member Faculty Research Committee
7. Scientific Contribution/Presentation of Results
8. Training

To provide clarity, the biostatistical support offered in each of these functions is outlined in the table below:

Table 2. Faculty Research Support Hub 2023/2024 Biostatistical Support Tasks

FUNCTIONS	TASKS
Research/Power and sample size calculations	<p>Utilizing advanced programming techniques to extract and aggregate raw data, thereby contributing to study design and analytical decisions. Conduct comprehensive statistical analyses, meticulously document programming procedures and results, and offer support in preparing reports, manuscripts, and grant proposals.</p> <p>Key responsibilities</p> <ul style="list-style-type: none"> ● Develop analysis plans and formulate statistical computing requests. ● Execute statistical analyses or review program code to ensure accuracy. ● Verify and report results to coauthors, facilitating collaborative decision-making. ● Actively participate in manuscript writing, contributing statistical insights and interpretations. <p>Sample size estimation</p> <ul style="list-style-type: none"> ● For sample size estimation, require materials: information regarding the statistical analysis to be applied, acceptable precision levels, decide on study power, specify the confidence level, and determine the magnitude of practical significance differences (effect size). <p>Key responsibilities</p> <ul style="list-style-type: none"> ● Choose statistical software to determine the required sample size. In FHS, all our sample size estimation was done using G*Power (a statistical software package).

	<ul style="list-style-type: none"> ● Explain the various statistical terminology involved. Sample size calculation involves several statistical terms, a selection of which is provided as follows: <ol style="list-style-type: none"> 1. Hypothesis testing: (i) The hypothesis is a statement the researcher formulates related to the population value of interest, (ii) In the process of hypothesis testing, the researcher establishes a null and alternative hypothesis, withdraw a sample to examine the hypotheses, and decide on the statistical test to be used. 2. Two-sided test and one-sided: In one-sided test, the aim of study is to test whether a value of interest (e.g., mean or proportion) is being less than or greater than a prespecified value. In a two-sided test, the test investigates if the value of interest differs in any direction from a predefined value or an estimate. 3. Power: It is an arbitrary probability value for the act of correctly rejecting a false null hypothesis. 4. Level of confidence: Probability that an estimate of a population parameter is within certain specified limits of the true value 5. Type I or false positive: Rejecting the null hypothesis when it is true 6. Type II or false negative: Failing to reject the null hypothesis when it is false. Power calculations provide information on how many participants are required to avoid a type II error. 7. Alpha (α): The probability of making type I error. The significance level was determined at the start of the study. $\alpha = 0.05$ is the common level used in medical, biological research. The size of power depends on α. 8. Beta (β): The probability of making type II error.
Data management and analysis	<p>Offer support in data extraction, manipulation, management, and analysis for outcomes and policy studies focused on enhancing the safety and effectiveness of medications across diverse patient populations and healthcare settings.</p> <p>Key responsibilities:</p> <ul style="list-style-type: none"> ● Aid in developing and interpreting statistical data. ● Formulate and review analytic plans proposed by study researchers. ● Create data specifications, analysis plans, analytic datasets, and visualizations for manuscripts. ● Collaborate on selecting appropriate statistical analysis strategies and adapt to new methods as needed. ● Contribute constructively to resolving system-wide issues impacting statistics and data management.

	Tailored statistical tool development to address specific research questions and challenges.
Research design	<ul style="list-style-type: none"> • Research feasibility discussion to establish testable research hypothesis • Sample size and statistical power determination • Data-instrument development, such as questionnaires <p>Study design and statistical analysis plan development for grants</p>
Interpretation of statistical results	Assist with the statistical data analysis output presented by various researchers to enhance accurate reports.
Grant development	<ul style="list-style-type: none"> • Assisting the investigators in refining study questions and measurement methods • Writing statistical analysis plans • Computing precision, power, and sample sizes necessary to achieve a given precision of estimation or a given power
Member Faculty Research Committee	Contribute to proposal development by researcher for ethics approval, including literature reviews and statistical analysis section.
Scientific contribution	<ul style="list-style-type: none"> • Assist in coauthoring study publications. • Generate statistical data and create graphical figures.
Presentation of results	<ul style="list-style-type: none"> • Draft articles for presentation at scientific conferences.

Software/Tools	It is also imperative to specify the statistical package or software employed for conducting analyses in your study, along with the version number (e.g., SPSS v. 29.0). The implementation of analyses can vary significantly across software packages, especially for more complex analyses. Consequently, results obtained from one software package may differ slightly from those obtained from another. Including precise software package information is essential for providing a comprehensive record of your biostatistical methods.
Training	<ul style="list-style-type: none"> • Train, and support graduate students, research fellows, and trainees under the supervisor's purview in the extraction, manipulation, management, and analysis of healthcare data. • Identify and implement best practices across projects, developing training materials to equip staff with these optimal approaches.

Moreover, a robust research design is indispensable for basic science, clinical, and translational research endeavours. The involvement of a biostatistician in the early stages of project development markedly enhances the quality of investigations. Since the beginning of 2024, we have provided students and staff with an opportunity to engage with a biostatistician during the early stages of their research projects through weekly in-person consultations (Figure 5).



Research Support Hub Invitation

Biostatistics Support Day

Every Wednesday
Time: 8:30 – 16:30

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To help minimise the delays in the completion of research projects that require biostatistics support, we would like to extend an invitation to all Faculty of Health Sciences (FHS) students and staff to visit the biostatistics support day every Wednesday for 30-minute online meetings with the Faculty's Biostatisticians. Researchers and Postgraduate students are encouraged to make use of this service at different stages of their research projects:

- **Concept stage** - to discuss the choice of study design and analysis approach
- **Protocol preparations stage** - to discuss some methodology aspects in preparation for formal submission through School-based screeners*
- **Analysis stage** - Clarification on statistical analysis
- **Dissemination stage** - Addressing reviewer's feedback
- **Grant proposals** - Sample size calculations for grant proposals

These services will be made available through the Faculty of Health Science's resident biostatisticians.

Please book an appointment slot with Dr Ropo Ebenezer Ogunsakin and Dr Kuhlula Maluleke via the [Google calendar link](#)

This service will be online only until further notice, a link to join the meeting will be available to you once you confirm your booking on the Google calendar.

*Please note that biostatistics service requests still need to be submitted via the School-based screeners. For more information, visit the [Research Support Hub](#) webpage.

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Figure 5: Invitation for weekly biostatistics support

Following the first consultation with a biostatistician, school-level screening, and final consultation, a biostatistical support letter is issued for degree research proposals. Below is a table illustrating the distribution of biostatistical letters issued to the School

of Medicine, School of Healthcare Sciences, and School of Dentistry within my jurisdiction for 2023 (Tables 3 and 4).

Table 3. Representation of the statistical support for 2023 (August–December 2023)

s/n	Schools	Biostatistical support		
		Sample size and statistical methods	Sample size only	Data analysis only
1	Medicine	40	6	6
2	Healthcare	26	4	8
3	Dentistry	10	1	2
Total		76	11	16

Furthermore, for 2024 biostatistical support, the following table illustrates the distribution of biostatistical letters issued to the School of Medicine, School of Healthcare Sciences, and School of Dentistry within my jurisdiction as of the composition of this summary report on 5/23/2024.

Table 4. Representation of the statistical support for 2024

s/n	Schools	Biostatistical support		
		Sample size and statistical methods	Sample size only	Data analysis only
1	Medicine	75	8	3
2	Healthcare	14	1	1
3	Dentistry	17	3	3
Total		106	12	7

Biostatistics training program–internship

To ensure the sustainability of FHS biostatistics support, we developed and piloted a biostatistics training program. This training is designed for postdoctoral fellows who show potential and interest in pursuing a career in academia as biostatisticians. The

program aims to enrich postdoctoral interns' comprehension and use of statistical methods in health sciences. One intern joined the program in January 2024. Here, we provide an overview of the program's structure, execution, and achievements. The primary objective is to provide interns with the statistical knowledge and skills necessary to master statistical methods for sample size calculation and analysis of a variety of health-related data and to provide biostatistics services to students and staff as well as teaching under biostatistics-related modules and workshops. The training encompasses biostatistics consultations for Honours, Master's, and PhD students, as well as support for research grants and nondegree research endeavours.

Goals and Objectives

Goal: To provide comprehensive training in biostatistical methods applicable to health research.

Training Objectives

- To understand the fundamental concepts of statistics and their application in health sciences.
- To learn diverse data analysis techniques used in biostatistics.
- To gain practical experience in using statistical software for data analysis.
- To apply statistical methods to real-world biological and health-related datasets.
- To develop skills in interpreting and communicating statistical results effectively.
- Develop proficiency in statistical software for data analysis (STATA, SPSS, and G-Power).
- Gain practical experience in analysing real-world health sciences datasets.

Basic statistics

- Overview of descriptive and inferential statistics.
- Measures of central tendency and dispersion
- Probability distributions relevant to biological data (such as binomial distributions).
- Sampling techniques and study design.

Biostatistical methods

- Hypothesis testing and p values.

- Confidence intervals and effect size estimation.
- Analysis of variance (ANOVA) and regression analysis
- Nonparametric methods for analysing data that do not meet the assumptions of traditional statistical tests.

Training methodology and sample size determination

The training sessions were conducted through discussions and practical assignments. Dr. Kuhlula was encouraged to engage actively in discussions and ask questions to clarify concepts. Real-world examples and case studies were used to illustrate the application of biostatistics in research and public health.

Statistical Software

- Practical sessions using statistical software such as G-Power, SPSS, or STATA.
- Data manipulation, visualisation, and analysis using software tools.
- Interpretation of statistical outputs generated by software.

Outcome and Impact: At the end of the training, Dr. Kuhlula gained the following:

- Proficiency in basic statistical concepts and their application in biostatistics.
- Practical skills in using statistical software for data analysis and sample size calculation.
- Ability to critically evaluate research studies and interpret statistical findings.
- Confidence in designing and conducting basic statistical analyses independently.
- Enhanced communication skills for presenting statistical results effectively.
- Dr. Kuhlula demonstrated an improved understanding of statistical concepts.
- Increased proficiency in data analysis and interpretation.

Feedback-She expressed her satisfaction with the following:

- Clarity and relevance of content.
- Practical exercises through protocol submission, as well as software training.
- Interaction with clients.
- She reported increased confidence in the statistical analysis.

This biostatistics training offered a thorough grasp of the statistical methods crucial to the health sciences. Dr. Kuhlula emerged from a program equipped with indispensable statistical skills vital for healthcare research. Acquiring practical proficiency in research conduct, data analysis, sample size calculation, and evidence-based decision-making across diverse professional environments within health sciences, Dr. Kuhlula's

professional development and research capabilities have flourished as a result of training.

Evidence synthesis capacity building

The RH collaborates with library services and [TURF \(Tuks Undergraduate Research Forum\)](#) to provide evidence synthesis research support through the [Evidence Synthesis and Translation research group](#) (ESR-T@UP). A dedicated team assists staff and students under TURF in conducting high-quality scoping reviews and systematic reviews, disseminating their findings in high-impact journals as part of degree or nondegree research projects. Involving TURF in offering this service has provided undergraduate students exposure to research as participants and co-authors of publications emanating from the projects, they participated in.

Successful dissemination of evidence synthesis research projects to the scientific community is a primary objective. Table 5 presents publications that resulted from the ESR-T@UP support from 2023/2024 along with their corresponding journal impact factors.

Table 5. 2023/2024 FHS evidence synthesis research outputs that were enabled by the FHS evidence synthesis support services.

Year	Publication	Journal impact factor
2023	1. Moyo-Chilufya, M., Maluleke, K., Kgarosi, K., Muyoyeta, M., Hongoro, C., & Musekiwa, A. (2023). The burden of noncommunicable diseases among people living with HIV in Sub-Saharan Africa: a systematic review and meta-analysis. <i>Eclinicalmedicine</i> , 65.	15.1
2023	2. Dzobo, M., Dzinamarira, T., Maluleke, K., Jaya, Z. N., Kgarosi, K., & Mashamba-Thompson, T. P. (2023). Mapping evidence on the acceptability of human papillomavirus self-sampling for cervical cancer screening among women in sub-Saharan Africa: a scoping review. <i>BMJ Open</i> , 13(4), e062090.	2.9
2023	3. Mpofana, N., Chibi, B., Gqaleni, N., Hussein, A., Finlayson, A. J., Kgarosi, K., & Dlova, N. C. (2023). Melasma in people with darker skin types: a scoping review	3.8

	protocol on prevalence, treatment options for melasma and impact on quality of life. <i>Systematic Reviews</i> , 12(1), 139.	
2023	4. Maposa, I., Twabi, H.S., Matsena-Zingoni, Z., Batidzirai, J.M., Singini, G., Mohammed, M., Bere, A., Kgarosi, K., Mchunu, N., Nevhungoni, P. and Moyo-Chilufya, M., 2023. Bayesian spatial modelling of intimate partner violence and associated factors among adult women and men: evidence from 2019/2020 Rwanda Demographic and Health Survey. <i>BMC Public Health</i> , 23(1), p.2061.	4.5
2023	5. Moetlhoa, B., Maluleke, K., Mathebula, E. M., Kgarosi, K., Nxele, S. R., Lenonyane, B., & Mashamba-Thompson, T. (2023). REASSURED diagnostics at point-of-care in sub-Saharan Africa: A scoping review. <i>PLOS Global Public Health</i> , 3(6), e0001443.	New journal
2023	6. Nxele, S. R., Moetlhoa, B., Kgarosi, K., & Mashamba-Thompson, T. (2023). A scoping review protocol on integration of mobile-linked POC diagnostics in community-based healthcare: User experience. <i>PloS One</i> , 18(2), e0276827.	3.7
2023	7. Dlamini, K., Moetlhoa, B., Turner, A., Maluleke, K., & Mashamba-Thompson, T. (2023). Mapping evidence on cryptococcal antigen infection among HIV-infected persons in sub-Saharan Africa-A scoping review protocol. <i>PLoS One</i> , 18(6), e0281849.	3.7
2023	8. Lukhele, S., Mulaudzi, F. M., Sepeng, N., Netshisaulu, K., Ngunyulu, R. N., Musie, M., & Anokwuru, R. (2023). The training of midwives to perform obstetric ultrasound scan in Africa for task shifting and extension of scope of practice: a scoping review. <i>BMC Medical Education</i> , 23(1), 764.	3.6
2024	9. Jaya, Z. N., Mapanga, W., Dlangalala, T., Thembane, N., Kgarosi, K., Dzinamarira, T., & Mashamba-Thompson, T. P. (2024). Accuracy of self-collected versus healthcare worker collected specimens for diagnosing sexually transmitted infections in females: an updated systematic review and meta-analysis. <i>Scientific Reports</i> , 14(1), 10496.	4.6
2024	10. Ngcobo, S., Bust, L., Couper, I., & Chu, K. (2024). The role of clinical associates in South Africa as a health workforce: A scoping review. <i>African Journal of Primary Health Care & Family Medicine</i> , 16(1), 11.	n/a

2024	11. Mapulanga, M., Kgarosi, K., Maluleke, K., Hlongwa, M., & Dlungwane, T. (2024). Evidence of community health workers' delivery of physical rehabilitation services in sub-Saharan Africa: a scoping review. <i>BMJ Open</i> , 14(5), e079738.	2.9
2024	12. Mapulanga, M., Kgarosi, K., Maluleke, K., Hlongwa, M., & Dlungwane, T. (2024). Evidence of community health workers' delivery of physical rehabilitation services in sub-Saharan Africa: a scoping review. <i>BMJ Open</i> , 14(5), e079738.	2.9

Research software

To augment the current research, we subscribed to support biostatistics, evidence synthesis, and scientific writing software. We have provided access to Stata, Covidence, and Paperpal software for all staff and students in the FHS.

Stata serves as a statistical software package pivotal in academic research, facilitating data analysis, manipulation, and visualisation. It empowers researchers to navigate complex datasets and perform advanced statistical analyses with ease. After providing Stata software, we provided a comprehensive Stata training session for both current and prospective users.

To enhance the efficiency and quality of scoping reviews and systematic reviews conducted by staff and students in FHS, we have access to **Covidence** through an annual subscription. Covidence serves as a screening and data extraction tool specifically designed for these types of reviews, streamlining processes and ensuring ease of tracking. This software is now available to all FHS students and staff actively engaged in research.

The following steps outline the evidence synthesis process facilitated by Covidence:

1. The search results were uploaded as an RIS file.
2. Covidence automatically deduplicates records, reducing redundancy.
3. The abstracts were screened for relevancy by two or more reviewers.
4. The full texts of the articles were screened using predefined inclusion and exclusion criteria.
5. Any disagreements among the reviewers were resolved.

6. Complete data extraction utilizing customisable templates.
7. The risk of bias assessment was conducted as necessary.
8. The data were exported into formats such as RevMan or Excel for further analysis.

Paperpal is designed specifically for academic writing and has been shown to be the best AI-assisted writing tool for researchers and students. This has been introduced to FHS to help boost students' and staff members' chances of success with real-time, subject-specific language suggestions that help them write their manuscript, theses, dissertations and reports better and faster.

Streamlining access to grantsmanship support

The faculty relies on external research contracts and grants to drive and elevate its research endeavours across various health sciences fields. Notably, within the review period from 2017 to 2023, research income significantly increased over the five-year period, growing from approximately R134 million in 2017 to approximately R243 million in 2022 (Table 6). Diverse funding sources contributed to this growth in addition to the support provided through the RH.

Table 6. Faculty of Health Science research income from 2017 to 2023

Research income summary – External funding (in ZAR)							
Funding Source	2017	2018	2019	2020 (COVID-19)	2021 (COVID-19)	2022	2023*
Contract income total	126 744 552	136 977 589	153 433 027	266 826 975	248 271 217	230 945 322	167 719 320
Dean's Office	1 972 882	17 109 327	44 147 497	49 122 542	41 115 981	17 714 087	8 011 448
School of Medicine	37 554 058	54 281 102	33 059 437	43 822 854	23 010 519	57 274 317	51 168 230
School of Dentistry	245 668	399 960	206 266	14 068	15 363	74 635	419 968
School of Health Care Sciences	1 127 789	978 657	1 487 069	3 055 350	3 096 411	3 858 661	387 559

SHSPH	15 143 861	5 687 943	8 419 197	7 850 335	7 929 173	10 045 290	11 126 478
Research entities	70 700 293	58 520 599	66 113 560	162 961 825	173 103 770	141 978 332	96 605 636
Donations and sponsorships total	7 886 555	3 854 298	7 073 687	81 312 758	7 747 487	12 275 875	8 512 955
Dean's Office	926 620	2 619 983	3 533 634	2 722 507	5 251 366	2 730 308	2 732 229
School of Medicine	4 893 662	337 556	3 564 651	1 205 320	2 361 694	5 272 517	5 575 726
School of Dentistry	-31 630	70 569	4 402	-5 377	134 427	0	0
School of Health Care Sciences	77 372	0	1 870	0	0	0	0
SHSPH	25 300	70 000	-70 000	10 000	0	197 019	0
Research entities	1 995 232	756 189	39 130	77 380 308	0	6 806 339	205 000
Grand total	134 631 107	140 831 887	160 506 714	348 139 733	256 018 704	243 221 197	176 232 275
* Preliminary figures, awaiting final validated BIRAP/HEDA figures for 2023							

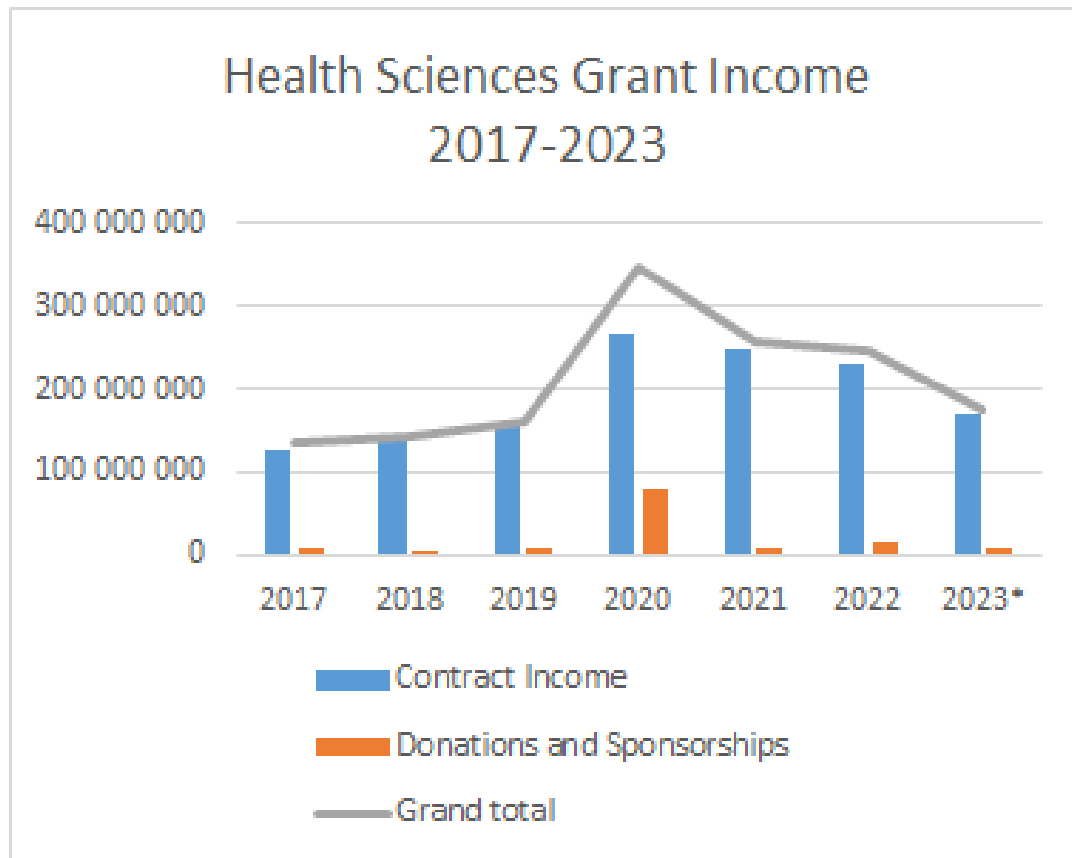


Figure 6. FHS funding from 2017-2023

Dedicated funding support includes the following:

- A centralised research support office in the faculty supports researchers by identifying funding opportunities, disseminating information about relevant grants, and providing guidance on the application process.
- There is a concerted drive to support emerging researchers. They are encouraged to start with smaller grant opportunities to build their track record before pursuing larger, more competitive grants. Where feasible, the experienced grant recipients are paired with junior faculty members or those new to grant writing to support and guide them through the application, similar to a mentoring programme.
- Aligned with the DRI, the research support office provides dedicated administrative support staff to assist researchers throughout the grant application process (preaward), from budget preparation and compliance with funding agency requirements to postaward financial management and reporting.

- The research support office administers processes based on standardised procedures, policies, guidelines and templates to streamline administrative tasks and ensure compliance with funding regulations within the UP.

The grantsmanship support is provided by one UP-appointed employee, the Research Grants Manager, with assistance and support from the DRI staff whenever possible. The office benefited from the provision of government-funded interns to assist with the workload the increased research income base brings with it during the 2023/2024 period. This support, however, is limited to six months at a time, and at least two of these months are spent on training the interns. The office will benefit from the addition of a post for an Administrative Officer reporting to the Research Grants Manager. With an extra pair of hands to assist with the administrative workload, researchers can focus on their research activities as opposed to the administrative load they need to bear at the moment.

One of the outstanding in-person workshops was the grant writing workshop, which was conducted in partnership with DRI and the Departments of Health in Limpopo and Gauteng (Figure 7). In an era characterised by intensifying competition for research funding, both domestically and abroad, the significance of proficient grant writing skills in higher education cannot be overstated. These skills are essential for advancing one's research career and undertaking impactful studies.



Figure 7. University of Pretoria, Limpopo and Gauteng Department of Health collaboration on research priorities and grant writing

Collaborating with key stakeholders in grant writing maximises the quality, relevance, and potential impact of the proposed research or initiative, ultimately increasing its competitiveness for funding opportunities.

Grant writing encompasses effective communication, project management, and a comprehensive understanding of regulatory frameworks governing ethical research conduct—essential components for a successful academic trajectory. The objective of our workshop was to equip attendees with the knowledge needed to identify funding opportunities, develop compelling grant proposals in collaboration with the **Limpopo and Gauteng Province Department of Health South Africa**, and effectively manage research projects.

Throughout the workshop, participants acquired insights into the following:

1. Aligning research questions with local health priority areas
2. Identifying research funding sources
3. Preparing and submitting research funding applications
4. Developing budgets for research projects
5. Reviewing and submitting research applications

Enhanced access to research mentorship opportunities

The faculty currently stands at 47 rated researchers, while a few new application outcomes for the 2023 submission are still pending. This drop in numbers is largely due to a number of postretirement researchers not submitting renewal applications. At least seven researchers allowed their ratings to lapse. There is a good spread of ratings across the categories (Figure 8).

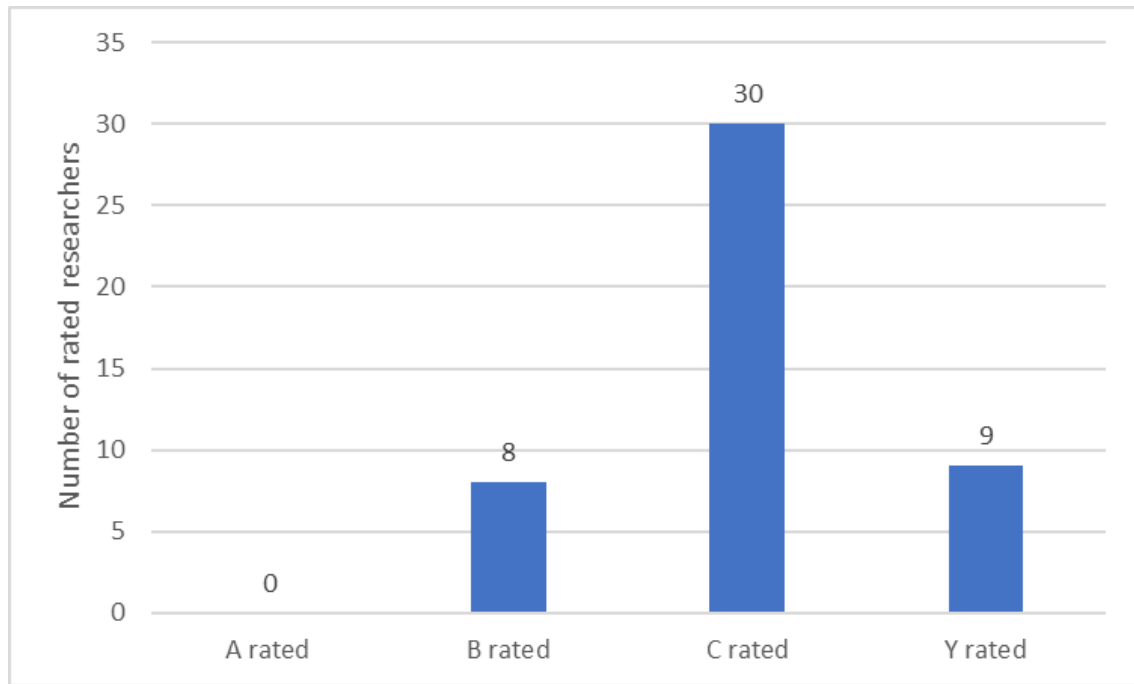


Figure 8. FHS NRF rating record, to date

We have augmented the support for NRF rating applications to staff by cocreating an NRF application [internal evaluation tool](#) with senior NRF-rated researchers within the FHS. This internal evaluation tool is also used as a self-evaluation tool to assist researchers with self-assessments of their readiness to apply for NRF ratings. We have collaborated with the DRI in delivering FHS-tailored NRF-rating workshops to help applicants improve the quality of their applications. The FHS RH provides two rounds of faculty-level screening and timely feedback to applicants to help improve the quality of applications before submission to the UP NRF-rating committee. The concerted and often individualised support provided to researchers through the FHS RH has seen an increased number of applications since 2021 (Figure 9).

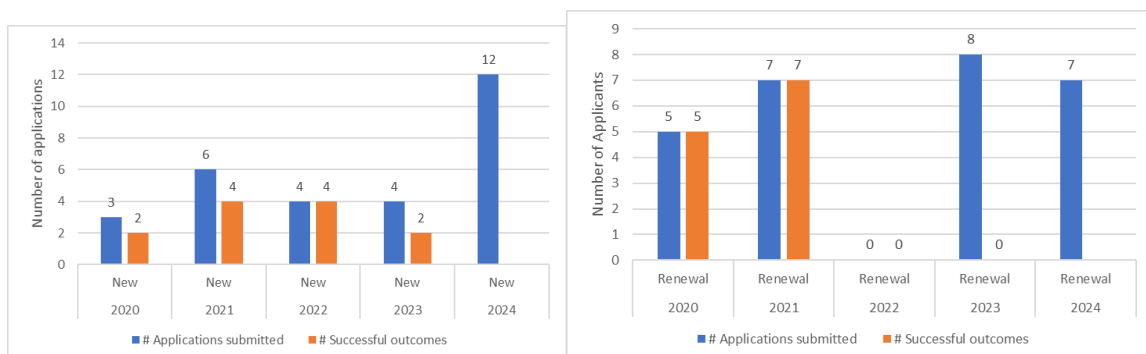


Figure 9. FHS NRF rating records from 2020 to 2021

The support structure also benefits renewal applicants, and we have observed an improvement in the quality of the applications submitted for internal review. Table 7 shows the submissions and success rates over the period from 2020 to 2024.

Table 7. FHS NRF rating applications record

	2020 New	2020 Renew	2021 New	2021 Renew	2022 New	2022 Renew	2023 New	2023 Renew	2024 New	2024 Renew
# Applications submitted	3	5	6	7	4	0	4	8	12	7
# Successful outcomes	2	5	4	7	4	0	2*	2*		
A-rated	0	0	0	0	0	0				
B-rated	1	2	1	0	0	0				
C-rated	1	3	2	7	2	0	1	1		
Y-rated	0	0	1	0	2	0	1	1		
*2023 results have been significantly delayed; on all FHS submissions, the results are pending and have been subjected to more review reports										

The research mentorship has spread across to undergraduate students to help build a pipeline for future postgraduate students. One of the FHS RH initiatives is TURF, which is aimed at exposing undergraduate students to research. TURF assists with matching undergraduate student with researchers including postgraduate student researchers who serve as research mentors to the undergraduate students. One of the most impactful undergraduate mentorship approaches that has been implemented through one of the Hub's initiatives is involving undergraduate student as screeners of scoping and systematic review that are supported by the ESR-T@UP. This has resulted in [having numerous undergraduate students included as co-authors of articles that are published in high impact international journals](#). In response to the request from FHS undergraduate students and the 2023 TURF student committee for an [undergraduate-level research methods course](#) to aid in identifying research areas of

interest and finding suitable mentors, we introduced such a course. This course was codeveloped with FHS undergraduate students and FHS academics, with the inaugural session held on 15 September 2023. The course is delivered in a hybrid format and aims to bolster the self-confidence of FHS undergraduate students and novice researchers in scientific thinking and the development of scientific process skills. It also seeks to promote increased inclusivity in science for underrepresented populations and enhance persistence in health sciences disciplines.

Moreover, the course was introduced to foster closer integration between teaching and research, thereby improving research productivity and increasing the impact of faculty research programs. While initially tailored for FHS undergraduate students and prospective FHS postgraduate students, it is accessible to all UP staff and students seeking to enhance their understanding of health research methods. The course's learning outcomes include the following:

1. Understanding the health research methods utilised across various health disciplines and translational research.
2. Acquiring knowledge of research methods within different health science disciplines.
3. Understanding the application of research methods within various health sciences disciplines.
4. Gaining insight into emerging research trends.
5. Understanding the conceptualization of a health research study, as well as the structure and key sections of a research proposal.

A total of 103 undergraduate students expressed interest in the course. Among them, 81 were affiliated with the School of Medicine, 18 with the School of Health Care Sciences, 2 with the School of Dentistry, and 2 with the School of Natural and Agricultural Sciences (Figure 10). Of the 103 students who expressed interest, 52 subsequently enrolled in the course. Among those who commenced the course, 10 successfully completed the course within six months and presented their concept notes at the 2024 TURF Symposium.

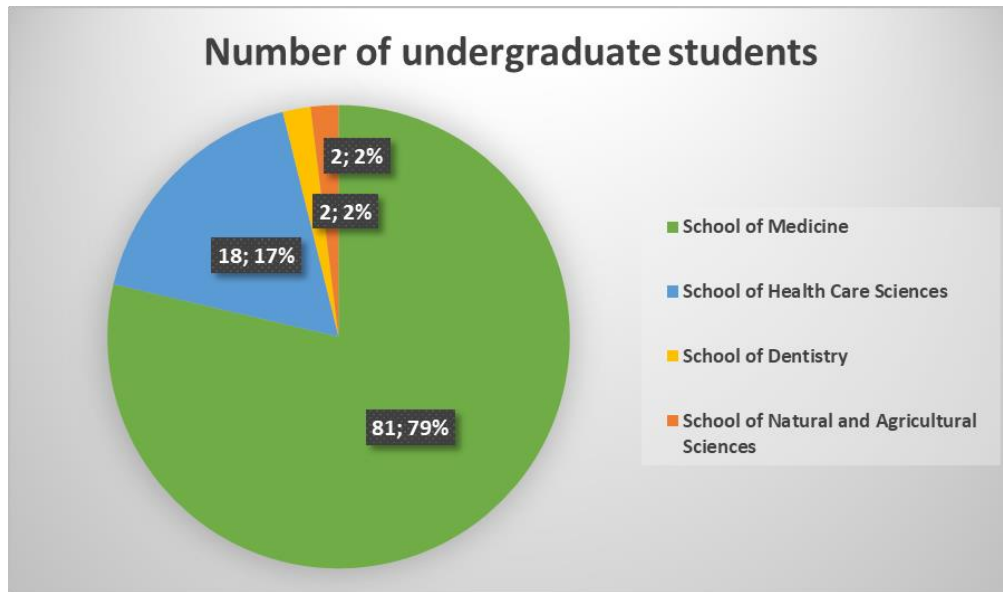


Figure 10: Interest in FHS undergraduate courses by school affiliation

The course is ongoing, and students who were unable to present their concept notes and complete the course during the 2024 TURF symposium will be given an opportunity to present at the 2024 Faculty Research Day.

The TURF symposium is an initiative aimed at involving undergraduate students in research and providing a platform for them to connect with research mentors. The 2023 TURF Symposium was themed 'Inspiring the Next Generation of Researchers'. In 2024, the TURF symposium offered a platform for undergraduate students who had completed the FHS undergraduate research methods course to present their planned research projects and receive certificates of completion.

Promotion of research impact and translation into policy and practice

The establishment of the FHS RH at UP underscores the faculty's proactive commitment to fostering research initiatives that prioritise social impact. Through the provision of resources, guidance, and expertise, the RH plays a pivotal role in advancing UP's research priorities, particularly focusing on the social implications of research outcomes. However, the recent quinquennial review of the faculty has highlighted a deficiency in initiatives aimed at facilitating the translation of research into tangible policy and practice.

In response to this gap, the FHS organises an annual Faculty Research Day event, serving as a vital platform for staff, students, research entities, and partner organisations to convene, exchange knowledge, and showcase pioneering research endeavours. The event's effectiveness has been significantly bolstered by enhanced support from DRI in recent years. The 2023 Faculty Research Day, held on August 24th, 2023, saw wide participation, with 728 individuals, including delegates, oral presenters, and exhibitors, marking a substantial increase compared to previous years. This surge signifies not only heightened engagement of faculty students in research but also an elevated acknowledgement of faculty research by esteemed partners and sponsors, facilitated by exceptional marketing efforts.

To further amplify research impact and translation endeavours, strategic collaborations with key stakeholders such as the Department of Health and the FHS Marketing and Communications Department have been initiated. These collaborations aim to enhance the social impact of research conducted within the faculty.

A noteworthy initiative in progress is the development of an e-magazine, tentatively titled "*Health Impact Insights*." Stakeholder engagement has been initiated, with encouraging support received thus far. The magazine, scheduled for launch in August 2024, will serve as a platform for delivering engaging features, insightful profiles, and thought-provoking analyses derived from the latest research findings of our Master's and PhD students, as well as research projects. Emphasis will be placed on highlighting the societal implications of these endeavours, particularly focusing on publications in peer-reviewed journals and recommendations from PhD theses.

The objectives of "*Health Impact Insights*" are multifold:

1. Bridging the gap between academia and society: The e-magazine will translate complex scientific concepts into accessible content, fostering understanding and engagement among diverse audiences.
2. Advocating for better health outcomes: By showcasing research findings, the magazine will advocate for evidence-based approaches to improving health outcomes and addressing disparities.

3. Promoting dialogue and collaboration: Through interactive features and expert interviews, the magazine will foster collaboration among stakeholders across academia, healthcare, policymaking, and the public.

The introduction of this e-magazine presents an opportunity to leverage faculty expertise and resources to amplify the social impact of research. It is anticipated that this initiative will not only enhance the visibility and impact of our research but also contribute meaningfully to strengthening South Africa's health systems in alignment with National Health Coverage initiatives, such as National Health Insurance.

Increased research productivity

We define research productivity as the measure of FHS's effectiveness and efficiency in producing scholarly outputs within the designated period, specifically 2023/2024. This encompasses various indicators, such as the number of publications, citations, and patents, as well as scholarships, grants secured by students and staff, and master's and PhD throughput.

Table 8. 2021–2022 Research Output Units per School

	2021	2022
School of Medicine	220.4	177.7
School of Dentistry	38.7	27.8
School of Health Care Sciences	34.8	37.3
School of Health Systems and Public Health	43	34.5

Table 9. Doctoral and Master's degrees in 2022 and 2023

	2022		2023	
	Doctoral	Masters	Doctoral	Masters
School of Medicine	21	120	19	127
School of Dentistry	1	9	0	10
School of Health Care Sciences	10	44	16	50
School of Health Systems and Public Health	9	51	9	51

In recognition of the financial barriers for publishing in open science journals for early-career researchers with no existing funds to cover publication costs from their cost centres. This was introduced to complement the existing Library Services APC support, and we have introduced the Faculty-level Article Processing Charge support. Table 10 presents the level of uptake for faculty-level APC support since 2022.

Table 10. FHS Article Processing Charge support

Year	School	Target journal	Faculty contribution
2022	School of Medicine	Molecules	R15 314,00
2022	School of Health Systems and Public Health	Diagnostics	R9 445,23
2022	School of Health Systems and Public Health	Tropical Medicine and Infectious Disease	R11 263,20
2022	School of Medicine	Frontiers in Cellular and Infection Microbiology	R26 651,08
2022	School of Medicine	Journal of Cellular and Molecular Medicine	R37 427,52
2022	School of Health Systems and Public Health	BMJ Open	R20 430,40
2023	School of Health Systems and Public Health	PLOS One	R4 942,94
2022	School of Health Systems and Public Health	PLOS One	R16 644,35
2022	School of Medicine	Biomedicines	R18 504,78
2023	School of Health Systems and Public Health	PLOS One	R44 422,70
2023	School of Health Systems and Public Health	PLOS One	R34 690,00

2023	School of Health Systems and Public Health	PLOS One	R29 417,28
2023	School of Health Systems and Public Health	Biomed Central Health Services Research	R31 983,61
2024	School of Health Care Sciences	Healthcare	R20 318,44
2024	School of Health Care Sciences	International Journal of Environmental Research and Public	R52 978,51
2024	School of Health Systems and Public Health	Frontiers in Public Health	R30 001,00
Total			R404 435,04

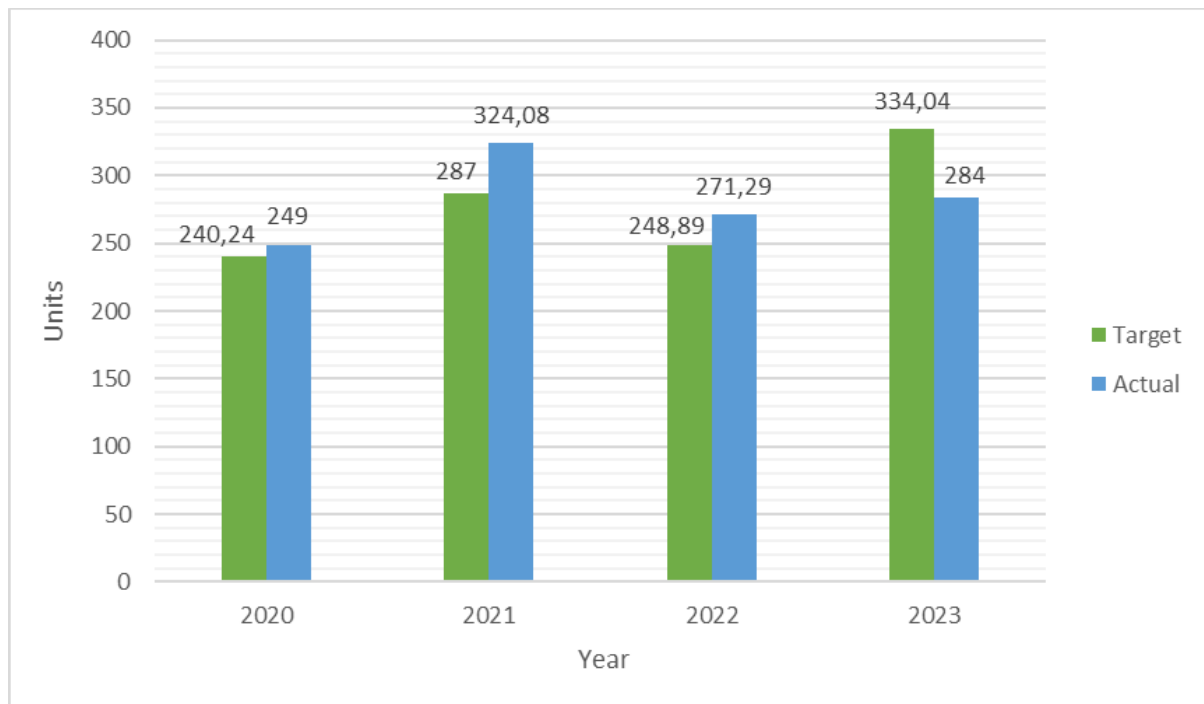


Figure 11: 2020–2023 research output target and actual units achieved for the FHS

Cultivation of an environment conducive to postgraduate success

Scientific editing

FHS RH provides scientific editing support to postgraduate students and staff who have prepared research articles for publication in DHET-accredited journals. Our support ranges from language editing to consultations aimed at improving the scientific quality of manuscripts. We also present academic writing training sessions to staff and students.

Published articles (2023-2024) edited by the FHS RH

1. Ayres, A., Van Tonder, D. J., & Van Schoor, A. N. (2023). Anatomical analysis of Sedillot's triangle as a reliable landmark for insertion of central venous catheters in neonates using a central approach. *Translational Research in Anatomy*, 33, 100264.
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 15. Harmse, S., Buys, T. L., & Claassen, N. (2023). Assessing work speed using MODAPTS: A tool for occupational therapists. *Work*, (Preprint), 1-10.
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Academic advice for postgraduate students

Academic advising services offered within the FHS RH are dedicated to supporting postgraduate health science students, aiming to empower them to succeed academically, personally, and professionally through early intervention and individualised support (Table 11).

Our mission is multifaceted, with the focus of empowering students to excel by providing accessible services tailored to postgraduates' needs. Our goal is to positively impact students' academic and professional development, ensuring that they complete their degrees efficiently, reach their optimal potential, and transition successfully into their professional lives.

The services provided by postgraduate health science student advisors with a background in counselling psychology include a range of tailored services to meet the diverse needs of our students:

1. **Individual counselling** is provided to students within a safe and confidential space to discuss personal, academic, and professional concerns, fostering holistic well-being and resilience.

2. **Academic support** sessions are personalised and focused on study skills, exam preparation, time management, goal setting, and motivation to enhance academic success.
3. **Career guidance and mentorship sessions focus on** assisting students in exploring career options, setting career goals, and navigating the transition from academia to the professional world through mentorship and guidance.
4. **Wellness workshops** are conducted on various topics, such as stress management, self-care practices, and work-life balance, to promote students' overall wellness and mental health.

Table 11. Support offered to postgraduate students

Support offered	Honours	Masters	PhD
Academic support – study skills, test preparations, exam preparations, time management, goal setting, motivation, research support	98	44	4
Mental health – depression, suicide, adjustment challenges, grief, anxiety, conflict management, addictive disorders, posttraumatic stress, abuse, family conflict, personal challenges, burnout etc.	105	84	48
Admin-related queries – registration and admission matters, Internal and External applications, module inquiries, changing degrees, transferring, deregistering	238	38	44
Funding - funding support includes Research Fellowships, Departmental Scholarships, Grants and Bursaries, External funding	32	65	34
Research assistant work	0	9	7
Food parcel	5	0	0
Career exploration and planning	45	23	18
Supervisor student conflict, mental health challenges related to research	3	68	5

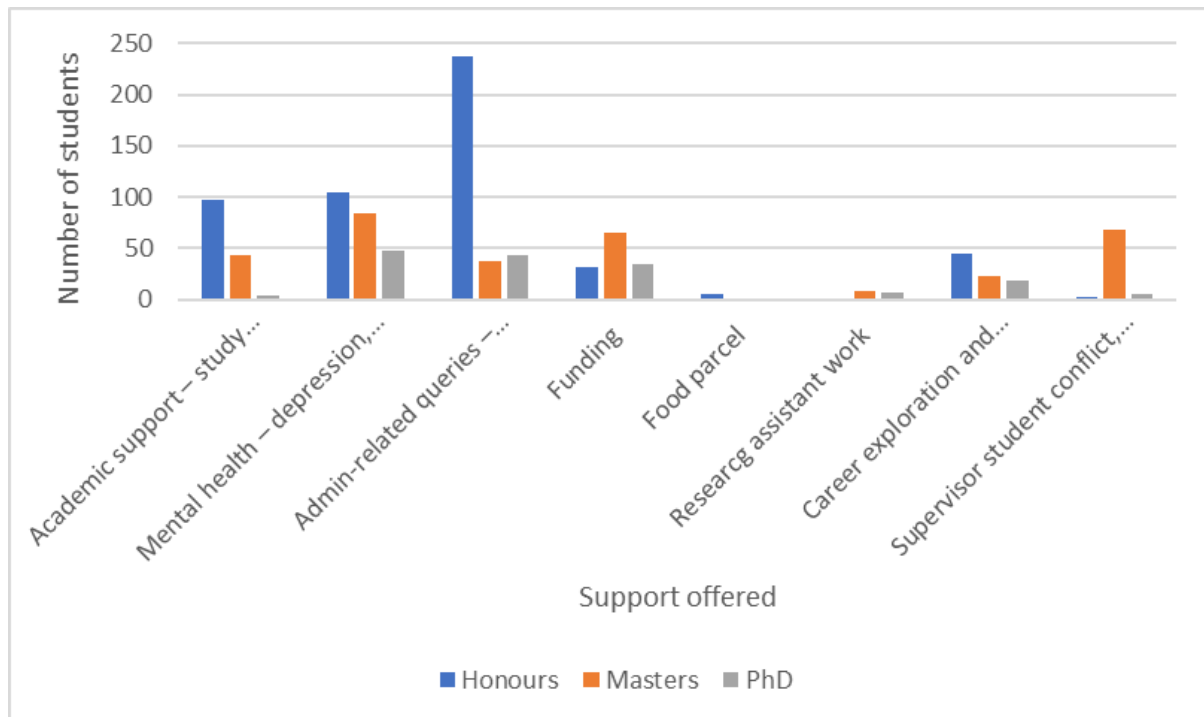


Figure 12: Support offered to postgraduate students

To ensure impactful support, postgraduate students with additional needs, such as severe mental health illnesses, are referred to the student counselling unit, psychiatrists, or doctors within the university. Other needs, such as administrative queries, often fall under faculty–student administration. Students are also referred to other support structures, such as the Health Science Health Committee, clinical psychologists, counsellors, clinics and psychiatrists.

Successes: Over the past year, our academic advising section has achieved notable success in supporting postgraduate health science students. We have received positive feedback from students who have benefited from our counselling sessions, workshops, and academic support, emphasising the effectiveness and impact of our services.

Development and implementation of research guidelines

Developing and implementing guidelines and policies at the faculty and university levels is crucial for creating an inclusive research environment. Since 2021, the FHS RH has cocreated research guidelines, standard operating procedures, and terms of reference for various research structures within the faculty in collaboration with the

schools. This approach ensures that all researchers, regardless of their background, have equal opportunities to contribute and succeed. All approved and updated guidelines are accessible via the [Faculty Research webpage](#), which is accessible to staff, students, and partners.

Report summary

The cocreation of FHS RH initiatives at the School, Faculty and University levels enabled the development of relevant, practical, and widely accepted initiatives and guiding documents that promote inclusivity, equity, and high-quality research practices. This collaborative approach has also helped build trust, enhanced innovation, and ensure the effective implementation of various research initiatives. The RH successfully introduced numerous transformative initiatives to enable staff and students in the FHS to thrive in their research and academic endeavours. These initiatives aim to augment research support for all and include ESR-T@UP, improved biostatistics support, enhanced assistance with NRF rating applications, access to research software, tailored support for postgraduate students, an undergraduate online research course, and top-ups for APCs and conference funding.

The uptake of these initiatives by FHS staff and students is evident. In line with the faculty's priority to improve access to and use of data science to improve the quality and social impact of research, 53% of the webinars/workshops provided between 2023 and 2024 focused on data science. The ESR-T@UP initiative has resulted in a substantial number of publications led by students or emerging academics and published in high-impact international journals. Delays in accessing biostatistical support have been reduced significantly, benefiting postgraduate students' success. The use of augmented NRF-rating support has increased the number of new NRF-rating applications from three in 2020 to 12 in 2024. A substantial share (R404,435.04) of the FHS's share of the research productivity subsidy fund has been used to help students and staff with APC top-ups. Despite having one scientific editor serving a large faculty with more than 1500 postgraduate students, the scientific editing services are available to all staff and students, enabling more than 45 publication articles in DHET-accredited journals. Most of the articles were published in international journals and classified in the first quantile. The introduction of PaperPal software aims to

enhance our scientific editing services, providing editing support to all FHS students and staff in need.

FHS RH postgraduate support includes academic support, mental health support and conflict resolution, which can significantly enhance student success. The mental health services provided are aimed at reducing stress and anxiety and improving focus and productivity. Effective conflict resolution fosters healthy communication and strong team dynamics, which are essential for collaborative research between students and their supervisors. This holistic approach to postgraduate support not only enhances learning and research outcomes but also boosts motivation, retention, and timely completion of postgraduate degrees. By addressing both emotional and interpersonal challenges, such comprehensive support ensures that postgraduate students thrive academically and professionally.

To further improve the quality of service provided, the FHS RH is committed to bringing FHS researchers closer to key stakeholders such as external universities, other UP faculties, the Department of Health, the SAMRC, the NRF, and industry. This ensures the cocreation of research agendas in line with national health research priorities. Initiatives such as webinars, workshops, and invited expert meetings, as well as the annual Faculty Research Day and conference top-up funding, provide opportunities for staff and students to engage with external stakeholders, fostering collaboration and alignment with broader health objectives. The annual Faculty Research Day is sponsored by numerous industry partners. The collaboration with the SAPRIN has enabled staff and students to access national health population data for research purposes. The planned e-magazine, in collaboration with the Department of Health and industry partners, is one indicator of the impact of our research stakeholder engagements and an affirmation of our long-term commitment to collaborating with relevant key stakeholders.

Despite the successes presented, there is still a need to enhance efforts to ensure the sustainability of biostatistics and qualitative research support, as well as to improve support for both quantitative and qualitative research in FHS. In the coming months, we will work with the School of Health Systems and Public Health to create a faculty

biostatistics service unit. For qualitative research support, we plan to deliver a series of qualitative and mixed-methods research webinars in collaboration with the School of Healthcare Sciences. Additionally, we aim to create a faculty-supported qualitative research support group. Through collaboration with the School of Medicine, School of Dentistry, other UP faculties, and international partners, we plan to enhance the knowledge and use of computational biology. This vital field combines computational techniques and biological data to understand and simulate the complexities of living organisms, which is particularly relevant in drug discovery and personalised medical research.

Continued support from schools, faculty and universities is crucial to ensure the sustainability of FHS RH initiatives and to help maintain research quality and create an inclusive research environment.

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- Faculty Dean and Exco for supporting the establishment of the FHS RH and for your continuing support.
- FHS Schools' Exco for encouraging your students and staff to use services provided by the FHS RH and for your ongoing support.
- The contributions of internal and external stakeholders to the initiatives of the FHS RH are highly appreciated.
- The high uptake of RH initiatives by staff and students in the FHS is also highly appreciated.
- SAMRC SAPRIN for providing access to population data.
- Department of Health for the ongoing collaboration.