

RESEARCH VISION

Rawalpindi Medical University 2017

PREAMBLE

"Health Research" according to the 43rd World Health Assembly is a process for obtaining systematic knowledge and technology which can be used for improvement of health of individuals or groups. It is not only limited to the systematic collection, analysis and interpretation of data but the utilization of this information to influence the health policies of a nation is also a crucial step. It aims to increase and modify our understanding about health and disease. It may be viewed as a rigorous inquiry to advance knowledge and improve practices; Research capacity is one of the most powerful, cost-effective, and sustainable means of advancing health and development. Medical research conducted over the last century has made many life threatening diseases a thing of the past while improving the quality of life of countless patients. We hail from an Islamic legacy which infused in the world the very concept of the "scientific method"; setting the stage for evidence based practice and averting the world from the age-old superstitious modus operandi. Verses like, "Do not pursue that which you have no knowledge of; your hearing, sight, and heart (intellect) will definitely be held accountable." (Al-Quran 17:36), imbued this rational spirit in the world. Ironically, those who sounded the beagle to break the slumber themselves fell asleep, as the world around them arose to the "Age of Enlightenment"

Over the years, the Rawalpindi Medical College, now upgraded as Rawalpindi Medical University (RMU) has made a concerted effort to remain actively involved in medical research. Through epidemiological surveys, clinical trials, workshops and seminars, the faculty of RMU has been constantly contributing to the knowledge bank of medical research in Pakistan. Over my years at Rawalpindi Medical College, I had embarked on the path of starting research in my discipline of medicine, with an aim to involve the students, faculty and the academia in research and to make our work resonate at national and international level. With emergence of Rawalpindi Medical University, the necessity of up gradation of research to new exalted, intensified and illustrious levels is significant. In this regard, this document of vision of research at RMU not only gives an overview of existent position of RMU in the field of research but also features our strategies and plans. It is an attempt to formulate plans and layouts, how we intend to instigate our efforts and contributions to make Rawalpindi Medical University an ivory tower of evolutionary research.

We look forward to establishment and maintenance of Self Sustainable Model for high impact research at Rawalpindi Medical University and this is just the beginning of a journey that will take our institutions to new horizons that medical science poses on us.

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Professor of Medicine Rawalpindi Medical University
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Ex-Governor, American College of Gastroenterology (ACG)
Chairman Asia Hep Pakistan
Past President Pakistan Society of Gastroenterology
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RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

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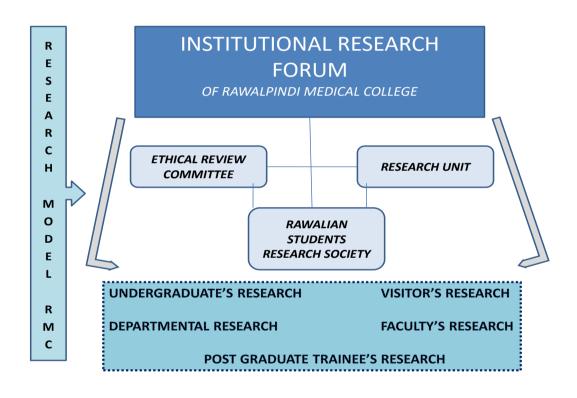
BACKGROUND OF RESEARCHACTIVITIES

Research Model of RMC 2014-17:

AIM OF RESEARCH MODEL OF RMC:

Strengthening of Institutional capacity for conducting integrated, problem-oriented research, through training and enhancement of proficiency to undertake quality research at all cadres, be it undergraduate, post graduate or department.

Organogram of Research at RMC (2014-17)



Institutional Research Forum (IRF)

The first ever Institutional Research Forum of RMC was formulated by Prof Muhammad Umar, the principal of RMC, in January 2014 that supervised all the research activities of RMC and Allied Hospitals.

IRF comprised of following members of RMC from various specialties:

1. Professor Mohammad Umar,

The Principal Rawalpindi Medical College & Allied Hospitals and Head of Department of Medicine, Rawalpindi Medical College

2. Professor FareedAslamMinhas,

Head of Institute of Psychiatry, WHO Collaboration centre& Director Research, Rawalpindi Medical College

3. Professor Hamamat-ul-BushraKhaar,

Honorary Professor of Medicine at RMC & Head of the Ethical Review Committee, Rawalpindi Medical College.

4. Professor Syed Irfan Ahmed,

Honorary Professor of Medicine at RMC & Editor-in- Chief, Journal of Rawalpindi Medical College.

5. Professor RizwanaChaudary,

Professor, Department of Obstetrics & Gynecology, Holy Family Hospital, Rawalpindi Medical College

6. Professor JehangirSarwar Khan,

Professor, Department of Surgery, Holy Family Hospital, Rawalpindi Medical College.

7. Professor Rai Muhammad Asghar

Professor of, Department of Paediatrics, BBH &Holy Family Hospital, Rawalpindi Medical College

8. Professor Muhammad Khurram

Professor of Medical unit,
District Head Quarters Hospital &
Editor Students Supplement JRMC, Rawalpindi Medical College

9. Dr FaizaAslam

Research coordinator, Research unit, Rawalpindi Medical College Editor Students Supplement JRMC.

10. Dr ShaziaZeb

Liaison Officer of Institutional Research Forum & Deputy Director, Department of Medical Education, Rawalpindi Medical College

SOP OF APPRAISAL OF RESEARCH PROJECTS BY INSTITUTIONAL RESEARCH FORUM

Any individual researcher or research groups interested in conducting research or data collection phase at RMC or any of its Allied Hospitals (that are Benazir Bhutto Hospital, Holy Family Hospital or District Head Quarters Hospital) must seek approval by Institutional Research Forum of RMC through following standard operational procedure

Download any of the Research Application Performa, from www.rmu.edu.pk according to your status that are:

Research Application performa for Undergraduates of RMC/ Faculty members/Departmental Research of RMC./ Post

Graduate Trainees of RMC or Visitor Researchers

After filling performa electronically and after endorsement by supervisor/Head of department/Principal Investigator submit eight copies along with research proposal and data collection tools to research unit of RMC at least one week before meeting.

At meeting a five minute's power-point presentation will be made followed by question & answer session. The IRF will review it and then will provide spot on decision regarding its appraisal or rejection or modification

An approval letter of IRF endorsed by all members will be issued, only after which research can be initiated.

Institutional Research Forum met on second Saturday of every month to oversee all the research related activities, their quality assurance in addition to ethical approval and appraisal of all the research projects of not only undergraduates, post graduation trainees, faculty members, departments of RMC but also of all visitor researchers from other institutions who intended to carry out research at RMC.

Any individuals or groups (comprising of undergraduates, post graduates, faculty members, staff members of either RMC or those belonging to any other institution) interested in conducting research or data collection phase at RMC or any of its Allied Hospitals (Benazir Bhutto Hospital, Holy Family Hospital or District Head Quarters Hospital) had to get approval by Institutional Research Forum of RMC. The standard procedure was as follows:

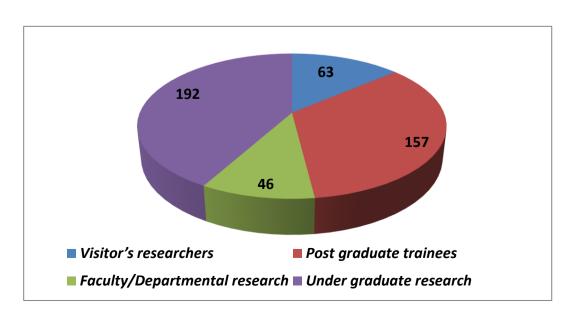
1. Applicants had to download any of the following Research Application Performa from the official website of RMC, according to their current status:



- a. Research Application performa for Undergraduates of RMC.
- b. Research Application performa for Faculty members/Departmental Research of RMC.
- c. Research Application performa for Post Graduate Trainees of RMC.
- d. Research Application performa for Visitor Researchers.
- 2. After filling it in electronically and after endorsement by supervisor/Head of department/Principal Investigator its eight copies along with research proposal and data collection tools were submitted at research unit of RMC. It should have been submitted at least one week before meeting.
- 3. Then applicants had to make a five minutes presentation on PowerPoint in monthly meeting of IRF that held second Saturday of every month.
- 4. The IRF reviewed and appraised it and within one week's period approval letter of IRF endorsed by all members was issued, after which research could have initiated.

 Institutional research Forum reviewed 458 submitted research proposals presented to it by researchers of variant cadres. These research proposals were reviewed & evaluated by members of IRF, then modified and appraised in 39 monthly meetings since March 2014.

A PIE CHART DISPLAYING THE DISTRIBUTION OF RESEARCH PROPOSALS SUBMITTED AND REVIEWED BY IRF





Research Unit of RMC

Research Unit of Rawalpindi Medical College was established in February 2014. It was first located at liver center of Holy Family Hospital but in December 2015, then it was shifted to Medical Education Department, New teaching Block of RMC. DrFaizaAslam, Research Coordinator of RMC and Allied hospitals was in charge of Research Unit. The Research Unit carried out all the following research related activities:

- Administration of research related activities of Rawalpindi medical College and Allied Hospitals.
- Facilitation and guidance of undergraduates, post graduate trainees and faculty of RMC regarding Health Systems Research e.g. research proposal formulation, basic and advanced research methodologies, data entry, analysis& interpretation and manuscript writing.
- At the research unit, individual and group consultations regarding topic selection, literature search, referencing system, plagiarism detection, research proposal formulation, study methods and materials, sample size calculation, sampling technique, selection of study variables, data collection tools, data collection techniques, pretesting, pilot study, data entry & analysis, manuscript writing etc were provided. Free of cost individual or groups counseling and assistance was provided to all undergraduates, post graduate trainees, faculty and even visitor researchers of RMC.
- From February 2014 till May 2017, approximately 5300 individual and group consultations were provided, majority of these included counseling of undergraduates and post graduate trainees of RMC.
- Research Unit also provided facilitation to visitor researchers and collaborative researchers of RMC, to present at IRF and conduct studies at RMC and Allied hospitals.
- The research workshops and training courses were also organized by Research Unit.



Research Methodology Workshops

Research Coordinator of RMC conducted following Research Methodology Workshops for the undergraduates and faculty members of RMC:

BASIC RESEARCH METHODOLOGY WORKSHOP:A two days/three days course regarding basic concepts of research methodologies and provision of hands on experience of research proposal formulation, literature search and plagiarism checking procedure, types of variables, data collection techniques, data collection tool development, plan for data entry and analysis procedure, sample size calculation , sampling techniques, pretesting, pilot study, work plan and budgeting and plan for manuscript writing.

ADVANCED RESEARCH METHODOLOGY WORKSHOP:A two days/three days course provided advanced concepts of research methodologies, provision of hands on experience of data entry in Statistical Package of Social Sciences along with basic and advanced statistical and epidemiological concepts. It also included hands on experience of data analysis manually and also through SPSS, Graph construction in SPSS and Microsoft Excel apart from interpretation of analyzed data and its write up.

LITERATURE REVIEW WORKSHOP:One day courses included topic selection for research, problem statement, literature search techniques and tools, plagiarism detection & its prevention and Vancouver and Harvard referencing systems.

RESEARCH PROPOSAL DEVELOPMENT WORKSHOP: One day courses including basic concepts of research methodologies and provision of hands on experience of research proposal formulation, literature search and plagiarism checking procedure, types of variables, data collection tool development, plan for data entry and analysis procedure, work plan and budgeting and plan for manuscript writing were also conducted.

16 Research Methodology workshopshave been conducted for undergraduates of RMC from 2014-2017, attended by **479** participants. However **4** research methodology workshops were conducted for faculty and PGT's of RMC, attended by 81 participants.



Rawalian Students' Research Society

First ever Rawalian Students' Research Society (RSRS) was established in March 2014, comprising of a team of motivated and proficient undergraduates of RMC, selected from all five academic years. About 7-8 members of RSRS were selected annually by team of senior faculty members as "core team" including Presidents, Vice presidents, General Secretaries and publication in charge, etcwho coordinate all the activities of undergraduate research proficiently under the direct supervision and guidance of the Principal of RMC, IRF and research unit. This core team of RSRS then selected, from each academic year, two research class coordinators who formed a bridge between every student and the RSRS and research coordinator of RMC. The members of RSRS facilitated their colleagues in all the activities related to research and played a vital role in organizing the student's research conferences. The RSRS members were trained in research by research through workshops at research unit and they transform their knowledge and skill in research to their colleagues. Then president and vice presidents of RSRS held introductory sessions regarding research, literature review and development of synopsis termed as "Master classes" for each academic year annually.

LIST OF MEMBERS OF RAWALIAN STUDENTS' RESEARCH SOCIETY OF 2017

POSTION	NAME OF MEMBER	ACADEMIC YEAR
President (Male)	Afnan Mushtaq	Final Year
President (Female)	Hafsah Ahmad	Final Year
Vice President (Male)	Hannan Ahmed	Final Year
Vice President (Female)	AzkaLaraib	Final Year
General Secretary (Male)	Nauman Tariq	4 th Year
General Secretary (Female)	KhawarBatool	Final Year
Publication In-charge	NoweraZafar	4 th Year
Chief Coordinator	Farheen Khalid	Final Year
Media Director	M. Hassan Nazir	Final Year

Research Committees of Specialties

The undergraduates of Rawalpindi Medical College showed immense interest in research and the number of students conducting research increased manifolds each year. Therefore, to facilitate them further in topic selection, Research Committees of various specialties of RMC were formulated by the principal of RMC in April 2017. All the undergraduates of RMC, either in groups or individually present their research topics along with introduction formulated after literature review to committee of the respective specialty. The senior faculty members of these committees then approved or modified the topics of studies and further advised them, from clinical perspective based on their expertise.

Meetings were organized and coordinated by members of the Rawalian Students Research Society of RMC under the supervision of the research coordinator of RMC. Two members of RSRS were assigned to committee of each specialty and were responsible to inform the members regarding the date, time and venue of meetings and conducted it along with recording the meeting minutes. The research topics of the undergraduates relevant to the specific specialties and subspecialties were presented in the form of power point presentations. Each committee met once or twice every month, depending on the number of research projects developed by the students in respective specialty, to review the research topics. Only during period April- May 2017, research committees had reviewed 92 research topics of undergraduates.

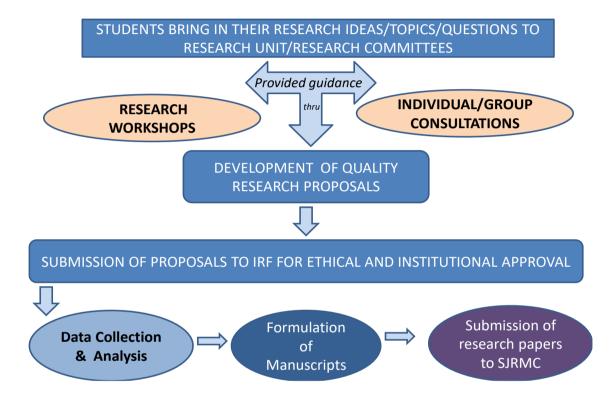
Under Graduate Research Model at RMC

Undergraduates of RMC were provided guidance and facilitation regarding development of research questions and then they were assisted in research proposals development by research coordinator RMC till March 2017. Since April 2017, the students were facilitated by Research Committees of various specialties of RMC regarding selection of research question and topic of studies. Then they were facilitated at Research Unit by Research Coordinator along with RSRS team through individual as well as group consultations regarding research proposal development, research methodologies, sample size calculation, data collection tools development, plan for data entry & analysis. On completion of research proposals, students presented them to seek approval from Institutional Research Forum of RMC. After IRF approval they initiated data collection and were continuously assisted in data entry, analysis and write up.

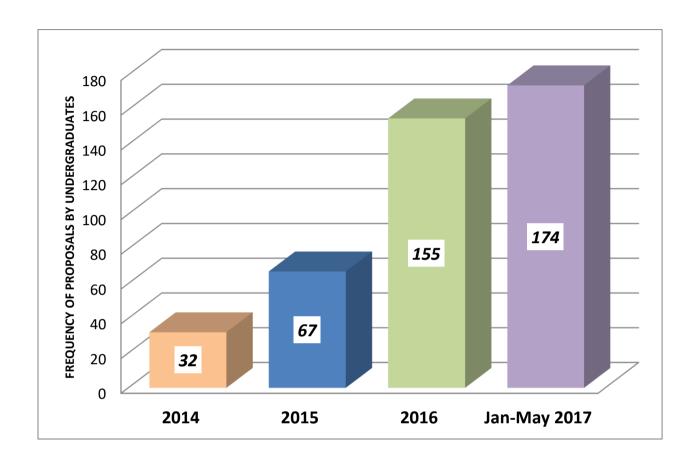
254 research proposals of undergraduates were completed under guidance of research unit from February 2014 till December 2016 whereas only till May 2017, more than 400 undergraduates are working on 174 research projects currently amongst which 118 had already been presented and approved by committees and IRF.

ORGANOGRAM OF UNDERGRADUATE RESEARCH AT RMC (2014-17)

UNDERGRADUATE RESEARCH







PORMULATED BY UNDERGRADUATES RAWALPINDI MEDICAL COLLEGE



Students' Journal of RMC

All the undergraduates of RMC, who received research guidance from research unit and also those who attended the research workshops, formulated their own research proposals and presented them to IRF for appraisal. Students completed their research independently and formulated manuscripts that were published in 2015 as first ever Students Supplement of Journal of Rawalpindi Medical College. It included **20** original articles and case reports formulated by Undergraduates of RMC, individually or in groups. Second and third student's supplements of JRMC were published in 2016 and 2017 with **16** and **24** original articles and case reports, respectively. The editorial board of Student's supplement of JRMC included local as well as international faculty members as follows:

EDITORIAL BOARD OF STUDENTS' SUPPLEMENT OF JOURNAL OF RAWALPINDI MEDICAL COLLEGE 2017

Editor in Chief: Professor Muhammad Umar

The Principal, Rawalpindi Medical College & Allied Hospitals, Rawalpindi.

Editors: Prof. Mohammad Khurram

Dr. FaizaAslam

AssociateEditor:Dr. NadeemIkram

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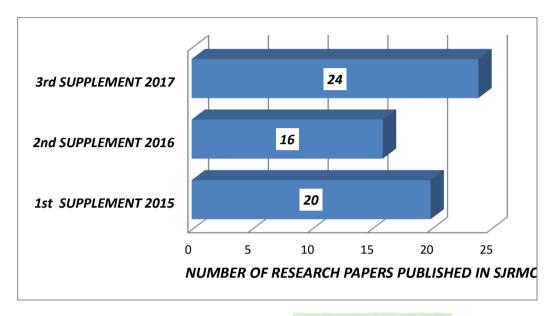
Institutional Editorial Board

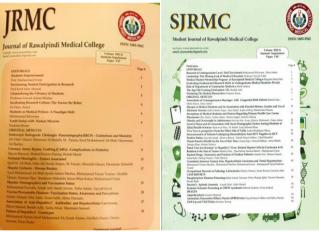
- 1. Prof. ShaguftaSaeedSial
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- 20. Dr Muhammad Mujeeb Khan
- 21. DrZahidMinhasMinhas
- 22. DrShaziaZeb

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- 4. Prof. Shabir Ahmad Lehri, Balochistan

RESEARCH PAPER PUBLICATION IN SJRMC 2015-2017







Undergraduate Research Conferences



RECON 15 OF UNDERGRADUATES

First ever research conferences of undergraduates of RMC was held in 2015. All the undergraduates of RMC were invited to submit abstracts of their research papers for research competition and 12 groups of undergraduates submitted and presented their original research work as oral paper presentations. Senior faculty members of RMC selected the top three research papers and the winners and all presenters were awardedcertificates. Lectures related to research by senior faculty members were also delivered.

RECON 16 OF UNDERGRADUATE

In 2016, the conference comprised of two days activities, when in addition to lectures on research, two competitions took place; poster competition and oral paper presentations. 32 groups of undergraduates participated in the poster competitions and the senior faculty members adjudicated each poster and selected top 10 original researches for the oral paper presentations through power-point. Amongst these top 10 researches, senior faculty members of RMC selected the top three research papers and the presenters were given cash prices in addition to certificates.

YOUNG RESEARCHER'S FORUM AT 3RD RMC INTERNATIONAL SCIENTIFIC CONFERENCE 2017

The Young Researcher's Forum of undergraduates of RMC, was introduced for the first time at 3rd RMC International Scientific Conference 2017. The forum comprises of two events; Poster competition and Paper presentation competition. Undergraduates of RMC submitted 62 abstracts of their original research which were evaluated by senior faculty members of RMC and best 8 researches were selected for powerpoint competition. 62 posters of the undergraduates of RMC were exhibited and national and international faculty members adjudicated them and selected top three posters who were awarded crests of RMC. Top 8 research paper presentations through powerpoint were adjudicated by international and national faculty members and the top three papers were awarded gold medals and crests

Faculty/Departmental Research at RMC



RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

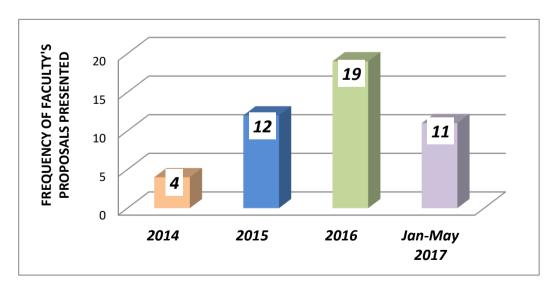
The faculty members of all departments of RMC were also facilitated in research activities. After approval from Institutional Research Forum of RMC they initiate data collection and are continuously assisted in data entry, analysis and write up.

46 research proposals of various faculty members and departments of RMC were evaluated and approved by IRF since March 2014. Four research methodology workshops (basic and advanced courses) were conducted for faculty and PGT's of RMC, attended by 81 participants since 2014.

FACULTY/DEPARTMENTAL RESEARCH AT RMC (2014-17)



DISTRIBUTION OF RESEARCH PROPOSALS SUBMITTED TO IRF BY FACULTY MEMBERS / DEPARTMENTS OF RMC (2014-17)



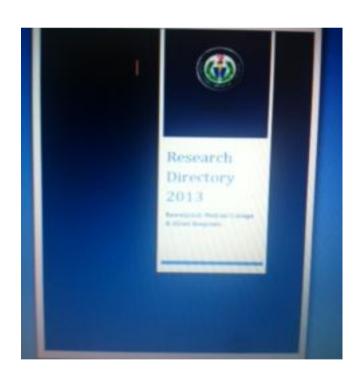
Research Directories of RMC

All the information regarding research activities, research projects, research workshops/conferences attended as well as those facilitated and publications till 31st



RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

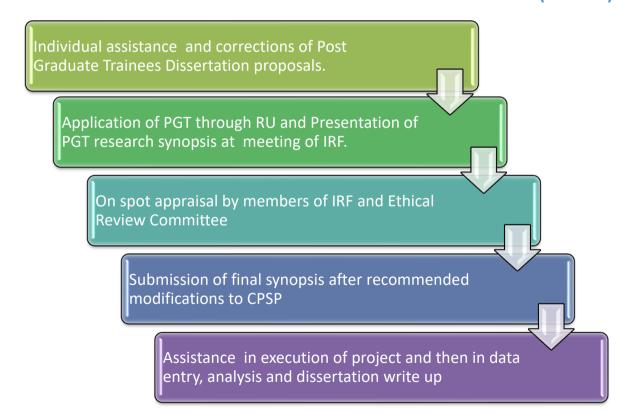
December 2013, by faculty members of various departments of RMC and its three Allied hospitals was gathered, compiled and printed as first edition in August 2015 titled as "Research Directory". It was the first ever anthology of all the research activities of RMC, by faculty members of its various department & undergraduates and publications in national and international journals by its faculty members. Formulation of second edition of Research Directory including additional information of 2014-2015 has already been formulated and its publication is in progress. It includes research projects of not only faculty members of various departments but also information by the international visiting faculty & Alumni of RMC



Post-Graduate Trainees' Research at RMC

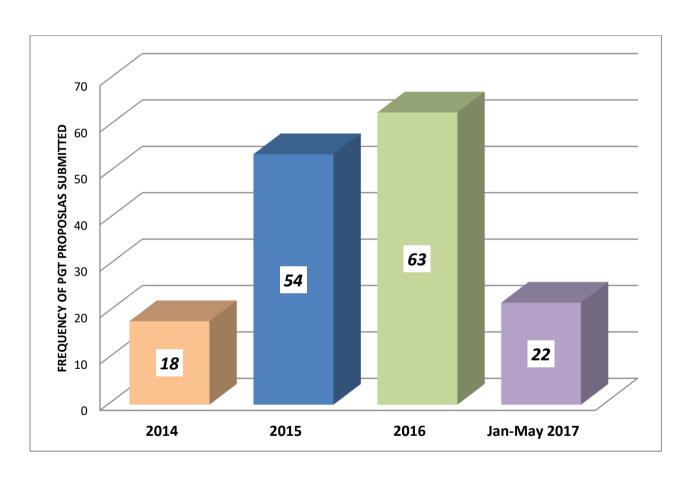
Individual counseling and guidance of Post Graduate Trainees of all specialties of RMC regarding their research synopsis submission and dissertation submission (as requisite fellowship of College of Physician and Surgeons), was formally initiated in September 2014, by the Institutional Research Forum of RMC. Research Coordinator of RMC provided individual consultations regarding research proposal development, research methodologies, sample size calculation, data entry, analysis, interpretation, manuscript writing & dissertation writing.

ORGANOGRAM OF POST GRADUATE TRAINEES' RESEARCH AT RMC (2014-17)



The synopsis of 157 Post graduate trainees of RMC were presented and appraised in the monthly meeting of IRF after review by members and incorporation of suggested modifications

YEARLY DISTRIBUTION OF FREQUENCIES OF 157 POST GRADUATE TRAINEES WHO RECEIVED APPROVAL FROM IRF OF RMC (Oct 2014-May 2017)



Post Graduate Research Forum of RMC

First ever PGT Research forum of RMU had been formulated in January 2017, after approval of academic council, for facilitation of PGT's for publication of their research papers as a requisite to fellowship of CPSP and also for RMC International conference, March 2017..After registration of the PGT's, in order to provide them hands on training of research methodologies, first research Methodology workshop was organized that was attended by 26 PGT's in February 2017.

POST Graduate Trainees' Research Forum was introduced for the first time at 3rd RMC International Scientific Conference 2017. The forum comprised of two events; Poster competition and Paper presentation competition. 52 Post graduate trainees and House Officers of all specialties of RMC and its three Allied Hospitals; submitted abstracts and posters of their original research that were adjudicated by senior faculty members of RMC and the best three paper presentations and best three posters were awarded gold medals and crests of RMC.

SPECIALTY WISE PRESENTATIONS OF 157 PGTS AT IRF, FROM THREE ALLIED
HOSPITALS OF RMC, 2014-17

SPECIALITIES	PERCENTAGE OF PGT's
MEDICINE	15.38%
PAEDIATRICS	15%
SURGERY	14.16%
OBS/GYNE	39.10%
OPTHALMOLOGY	3.30%
NEUROSURGERY	4.16%
ENT	2.50%
PSYCHIATRY	1.51%
PATHOLOGY	3.23%
ANESTHESIA	0.83%
RADIOLOGY	0.83%
Total	100.00%

Visitor's Research at RMC

63 research proposals offaculty members, undergraduates, post graduates, MPhil Scholars or PhD scholars of various other national and international institutions, medical colleges, universities and organizations were presented to IRF as Visitor researchers. These researchers applied to seek permission to either collaborate or collect data from RMC and its various departments and specialties. It included researchers affiliated with World Health Organization, University of York, Health services Academy Islamabad, NUST, Islamic International University, Tameer-e-Millat University, ARID AND Agriculture University, National Institute of Laser's &Oprontics (NILOP), NILORE, COMSATS, Quaid-e- Azam University, Wah Medical College, Shifa Medical College, Fatima Jinnah University, National Institute of Health, Pakistan medical and Research Council etc

VISITORS' RESEARCH AT RMC 2014-17

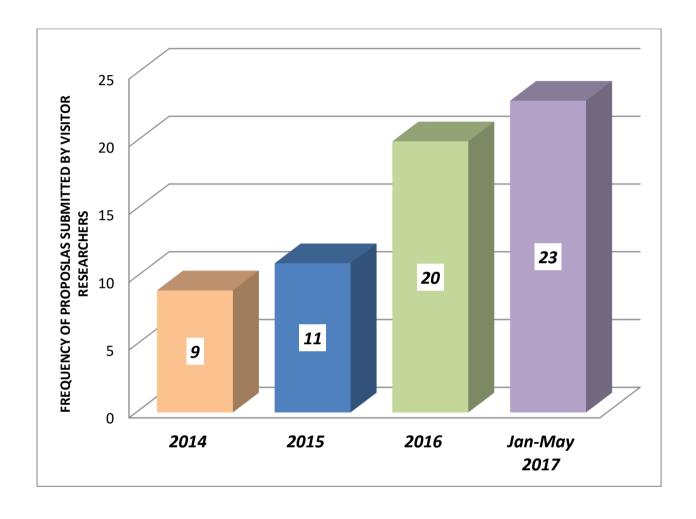
Application of visitor researcher through Research Unit to IRF Presentation of VR at the monthly meeting of IRF for appraisal

Initiation of research after approval from IRF

Monitoring & Evaluation of research by IRF

YEARLY DISTRIBUTION OF FREQUENCIES OF63 VISITOR RESEARCHERS WHO RECEIVED APPROVAL FROM IRF OF RMC

(Sep 2014-May 2017)



Journal of Rawalpindi Medical College



Journal of Rawalpindi Medical College was launched in 1997. Since then, it was biannual, but from July 2015 it has been publishing quarterly a year.. Prof Dr Muhammad Umar is the Patron in chief while Prof Syed Irfan Ahmed is the chief editor. Editor board is constituted by the members of academic council. As per directives of Higher Education new editorial board is under formation to accommodate non faculty representatives. The mission statement of Journal of Rawalpindi Medical College is envisioned to facilitate the creativity of medical professionals in basic and clinical medical sciences, in accordance to its utility for medical practice and then to employ medical research as a potent and effective tool in combating disease and alleviating the suffering of mankind. Journal is recognized by Pakistan Medical and Dental Council as well as Higher Education Commission. Journal is accredited by EBSCO (EBSCO Publishing, Inc., 10 Estes Street, Ipswich, Massachusetts, 01938-0682, USA).

Articles submitted to journal go through the review process which is double blinded, i.e. authors are unaware about the reviewer and the reviewers are unaware of the identity of article. Articles are checked for plagiarism and similarity index by Turn-it-in soft ware. The web site of the journal is www.journalrmc.com. All the journals since 1997 onward are completely loaded on the web site. Electronically articles can be sent on the email address



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journalrmc@gmail.com. Journal is planning to put review system on open access system soon. All the articles can be accessed through Google scholar, where the citation of the articles published in JRMC can also be acknowledged. The financial requirements are accomplished through grant by Higher Education Commission, grant by Rawalpindi Medical College and processing fees by authors. Issues of journal comprises editorial, original articles, case reports and review articles. On an average per year approximately 80 to 85 original articles are printed.

The mean number of papers published annually by JRMC was increased from **63.67** (\pm 32.86) in 2011-13 to **102.67** (\pm 8.02) in 2014-16.

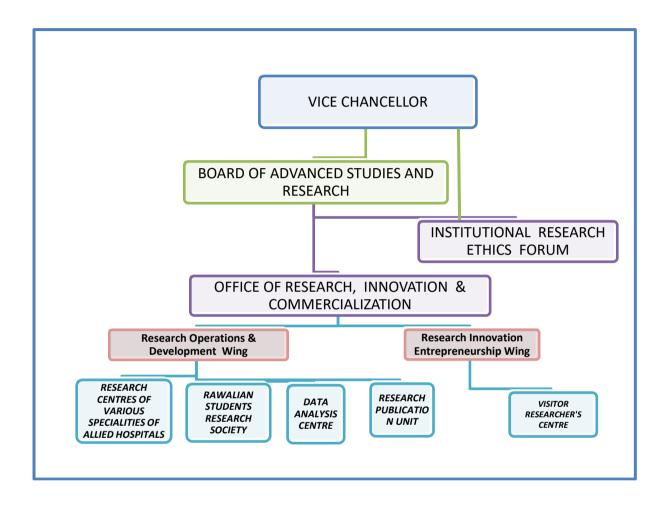
RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

Rawalpindi MedicalUniversity aspires to establish itself as a premier institution for innovative medical education, research, training and patient care with dominance in each of its primary mission; quality education and training, evidence based clinical care and basic & applied health systems research. Rawalpindi Medical University will coerce to be recognized in next ten years as an ivory tower of evolutionary research, for its contemporary academics, most talented faculty & workforce, optimum and compassionate clinical care of highest echelon of ethics and integrity, collegiality, an exceptional scholarly and scientific environment to attain the ultimate goal of serving humanity.

The strategic research goals of RMU constitute of establishment and maintenance of Self Sustainable Model for high impact research at Rawalpindi Medical University and also attainment of highest rankings amongst National & International Medical Universities.



Model of Research at Rawalpindi Medical University



Responsibilities of Offices

- VICE CHANCELLOR (VC) OF RMU will provide the leadership and the strategic direction for preservation of reputation of RMU in research excellence nationally and internationally. He will chair the monthly meetings of Board of Advanced Studies Research and Institutional Research Forum of RMU and will be the final authority in policy development.
- BOARD OF ADVANCED STUDIES & RESEARCH (BASR): The responsibilities of Board OF Advanced Studies and Research are prescribed as under serial no 27 of Rawalpindi medical University ordinance 2017 (V of 2017) as follows:

 The Board of Advanced Studies and Research shall:
- a) Advice an authority on all matters connected with the promotion of advanced studies and research publication in the university
- b) Consider and report to an Authority with regard to research degree of the University
- c) Propose regulations regarding the award of a research degree
- d) Appoint supervisors for a post graduate research student and to approve the title and synopsis of the Thesis and dissertation
- e) Recommend panel of examiners for evaluation of a research examination &
- f) Perform such other functions as may be prescribed by the Statutes.

 In additionBASR will not only supervise the research veracity and integrity at RMU through annual review of research activities but will also support Institutional Research Ethics Forum and ORIC in development of research policies and guidelines

INSTITUTIONALRESEARCH ETHICS FORUM OF RMU (IREF):

The IREF will comprise of members who are deans/ senior faculty members/public health consultants of RMU. IREF will supervise the institutional and ethical strategic research planning and development. It will not only promote the development and implementation of high-quality research initiatives but will also formulate and

RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY



promoteethical conduct of research of RMU and a culture of research ethics and compliance among faculty, students, visitors and staff conducting research at RMU. IREF will oversee all research integrity, ethics, compliance and faculty conflict of interest activities. Institutional Research Ethics Forum will meet monthly to oversee all the research related activities, their quality assurance in addition to ethical approval and appraisal of all the research projects of not only undergraduates, post graduation trainees, doctoral scholars, faculty members, staff members of departments of RMC but also of all visitor researchers from other institutions who intend to carry out research at RMC.

OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION OF RMU (ORIC)

'The Office of Research Innovation and Commercialization will be established as per policy of Higher Education Commission of Pakistan, Research & Development Division (http://hec.gov.pk/english/services/universities/ORICs/Documents/ORIC%20Policy.pdf).

The ORIC will be responsible for University-wide research operations and support infrastructure, including research administration systems, research ethics, education and compliance. It will strive for the development and implementation of high-quality research initiatives in addition to establishment of innovation and entrepreneurship in research, and will support the translation of discoveries into knowledge and technologies. The Office of the ORIC will provides University-wide infrastructure to support all ventures associated with Research and will also ensure quality assurance in research of RMU. ORIC will also link research and commercialization from the University with emerging and existing firms across Pakistan and around the world.

VISION OF ORIC

RMU ORIC will intend to develop conducive and enabling environment to develop and facilitate focused research, linkages and commercialization in the relevant market.

MISSION OF ORIC

ORIC through innovative overarching strategies will ensure capacity development in

- Research
- Academics

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RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

- Health care delivery systems
- Informed decision making
- Institutionalize of research in the health system and academic Institutions in Punjab.
- > synergize individuals, the institutions, the industry and
- > synergize relevant stake holders to find sustainable solutions to the problems faced by the country

STRATEGIC OBJECTIVES OF ORIC

The ORIC directed by Director ORIC & assisted by the Deputy Director (Manager) Research, Deputy Director (Manager) University Industrial linkages & Deputy Director (Manager) Research Operations to attain the following objectives;

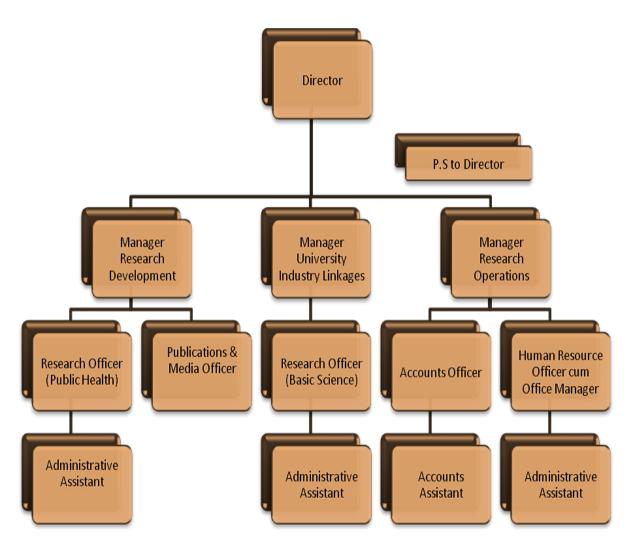
- To manage & enhance research activities in the university, which includes acting as secretariat for the advanced studies & research board & ethics board.
- To develop research policies & priorities (which include management, administration, supervision, monitoring & coordination of all research related activities) and explore new themes of research & research agenda of RMU.
- To strive for fund raising and acquiring grantsfor research & development both nationally and internationally.
- 4. To promote capacity-building activities within the university not only in the field of research but also in all discipline.
- 5. To mobilize faculty and resources to produce quality research projects.
- 6. To mobilize community and industry to promote research commercialization.
- 7. To effectively advocate for research within the university and to its broader community of stakeholders and supporters & develop collaboration with national & international research bodies.
- 8. To develop collaboration with relevant government bodies (health department) and lead in establishing & conducting health systems research.
- To promote development of Intellectual property and patenting activities & IP success stories within the university to leverage communication efforts.
- 10. To facilitate the faculty in licensing & commercializing IPs.

ORIC will constitute of the following two wings:

- 1. Research Operations & Development Wing
- 2. Research Innovation & Commercialization/Entrepreneurship Wing

The Administrative structure of ORIC as per requisition of Higher Education Commission is as follows:

ORGANIZAITONAL CHART OF ORIC:



SPACE REQUIREMENTS FOR ORIC

Following Space /offices will be required to run these offices:

- One meeting/conference room
- Reception area for Administrative assistants
- One private office for Director
- One office for Manager of research Operations
- One office for Manager of University-Industrial Linkages and Technology Transfer.
- One office for Manager Research Development.
- One Office for Publication Manager
- One hall shared by HR officer, staff of Data analysis centre, and Accountant, publications and other administrative staff.

RESPONAIBILITIES OF ORIC

Following activities will be carried out at all wings of ORIC to effectively attain above mentioned objectives, in accordance with the HEC policy:

- 1. Identification of opportunities and coordinating with External funding agencies for Fund raising for research
- 2. Providing information to faculty about various available research grants
- 3. Linking faculty with relevant industry
- 4. Assistance on patent filing and licensing
- 5. Interfacing between faculty and the commercial sector
- 6. Working with patent counsel to assess patentability/licensing
- 7. Evaluating markets for commercialization of inventions
- 8. Identifying potential licensees
- 9. Negotiating terms of licenses
- 10. Assistance catered through negotiation of problematic sponsored research agreements
- 11. Helping faculty regarding initiation of companies
- 12. Funding for patent applications

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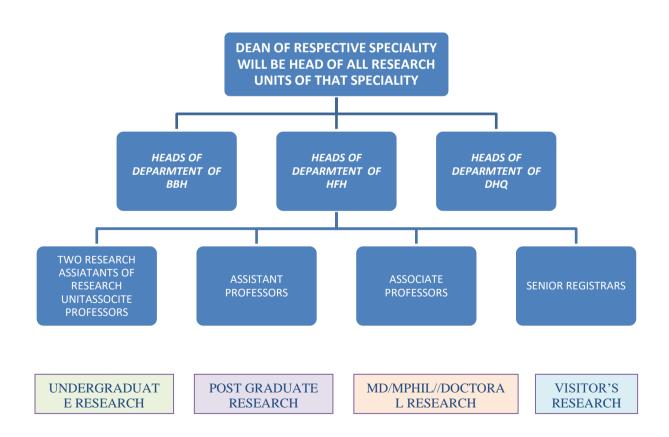
RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

- 13. In-house preparation and filing of provisional patent applications
- 14. Market analyses of university intellectual property
- 15. Providing legal advice and contractual services.
- 16. Offering development and support of intellectual property across all departments of RMU.
- 17. Receipt and maintenance of University Research Council Awards
- 18. Facilitation of research collaborations of RMU and its faculty with external institutions
- 19. Data management
- 20. Policy analysis development and implementation under the supervision of BASR & IREC of RMU.
- 21. Administrative support
- 22. Preparation/development of data base of research donors/funding agencies, industrial links, and mentors.
- 23. Supervision, facilitation and record keeping of all the Research Publications of RMU
- 24. Training of theundergraduates, Post graduate trainees, doctoral scholars, faculty members and staff members of RMU in Research methodologies and relevant activities through workshops.
- 25. Collaboration with external agencies and foreign faculty regarding development and facilitation of research training courses and workshops.
- 26. Facilitation of literature review and online search regarding research.
- 27. Facilitation and provision of plagiarism detection services and licensed software to the faculty, undergraduates, Post graduate trainees, doctoral scholars and staff members of RMU.
- 28. Provision of services and training relevant to data entry and analysis through various data software.
- 29. Provision of consultations regarding proposal development, project execution, development, pretesting and accessibility of data collection tools and pilot studies.
- 30. Supervision and monitoring of the Research Units at various departments of RMU.
- 31. Supervision and guidance of the Rawalian Students Research Society of RMU.
- 32. Monitor the activities of the data analysis centre.
- 33. Supervision of Visitor researchers unit of RMU.

RESEARCH CENTRES OF VARIOUS SPECIALITIES OF RMU:

Every department of RMU, at teaching campuses and the Allied hospitals will set up Research centers of its own that will be supervised and monitored by respective Head of Departments. It will keep updated record of all research projects, research related activities of respective departments and also of publication that will be submitted as monthly reports to ORIC. Moreover the two research assistants (who will be faculty members of same department duly trained by ORIC in research methodologies) at each centre will facilitate the faculty, staff members, post graduate trainees, students and visitor researchers in data collection and execution of research projects at the departments.

ORGANIZAITONAL CHART OF RESEARCH CENTERS



DATA ANALYSIS CENTER:

To improve the productivity of researchers, Health care providers of all departments of RMU, the Data analysis center will provide assistance regarding collecting, analyzing, synthesizing, and disseminating worldwide scientific and technical information. It will provide quantitative and qualitative analysis services. It will also guide to prepare state-of-the-art reports, handbooks, and databooks; perform technology assessments; and support exchanges of information to RMU staff members, faculty and students. Experienced statisticians with two associates will provide the services at the data analysis centre of ORIC.

RAWALIAN STUDENTS RESEARCH SOCIETY OF RMU

Rawalian Students Research Society will comprise of 15 undergraduates of RMC, selected from all five academic years. They will coordinate all the activities of undergraduate research proficiently under the direct supervision and guidance of the ORIC.

VISITOR'S RESEARCHERS' CENTRE

ORIC through its visitors researchers centre will supervise and manage all the research projects of visitors researchers who will be faculty members, undergraduates, post graduates, MD scholars, MPhil Scholars or PhD scholars of various other national and international institutions, medical colleges, universities and organizations. ORIC will collaborate with IERF and will facilitate presentation of visitor researchers at monthly meetings and after their permission will direct the research units of respective departments for data collection at various departments and specialties of RMU

PROPOSED RESEARCH PROGRAMS OF RAWALPINDI MEDICAL UNIVERSITY

UNDERGRADUATES RESEARCH PROGRAMS OF RMU:

The undergraduate, post graduate trainees, MD, M.Phil and doctoral research at RMU will be conducted under respected research programs as follows:

The undergraduate research program will comprise of following two components:

A. JUNIOR UNDERGRADUATES' RESEARCH PROGRAM:

- The junior researchers program will encompass the research activities of medical students of RMU in first four academic years and also the students of Allied Health Sciences.
- ➤ These students will conduct observational studies (descriptive, analytic cross sectional or case control studies) of 6 months to one year duration.
- ➤ The undergraduates will select research topics and will formulate research proposals under the supervision of the faculty members of RMU of various departments in the respective research centers.
- They will also seek assistance of Data analysis centre of ORIC for sample size calculation or statistical consultation.
- > After formulation of the research synopsis, they will seek its institutional and Ethical approval from the Institutional research Forum.
- After approval the students will initiate data collection and they will be supervised at every step of their research by the Research centers till manuscript writing and submission to journals for publication.
- > The data entry and analysis will be facilitated by the Data analysis centre of ORIC.

B. SENIOR UNDERGRAUATES' RESEARCH PROGRAM:

- ➤ The senior undergraduates' research program will include undergraduates of final academic year only.
- They will be facilitated and guided to formulate research proposals of experimental or interventional studies of one to two years duration in specialties of their interest that they will pursue even after graduation and even during house jobs.
- These final year students will select research topics and will formulate research proposals under the supervision of the Deans of various specialties and will be affiliated with respective research centers supervised by the Deans.



RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

- ➤ They will be facilitated by Data analysis centre of ORIC for sample size calculation or statistical consultation.
- After formulation of the research synopsis, they will seek its institutional and Ethical approval from the Institutional research Forum.
- After approval of IRF, the students will initiate data collection and they will be supervised at every step of their research by the supervisors during and after graduation i.e. during house jobs, till manuscript writing and submission to journals for publication.
- The data entry and analysis of their projects will also be facilitated by the Data analysis centre of ORIC.

POSTGRADUATE TRAINEES RESEARCH PROGRAM OF RMU:

The post graduate trainees (PGT's) of RMU will be guided and supervised for their CPSP dissertations or two original articles' publications in CPSP recognized journals by the ORIC for either of the following two research programs based on their personal selection. The supervisor's of the Post graduate trainees will be nominated by the Deans of respective specialties that will get final approval from the Board of advanced Studies & Research:

A. POST GRADUATE TRAINEE'S ORIGINAL ARTICLE'S RESEARCH ENCODE:

- ➤ If the PGT will be interested in publishing two original articles' instead of a dissertation project, the supervisor will facilitate him/her in topic selection in the research units of respective departments that will be sent to the Deans of respective specialties for approvals and then to CPSP for approval.
- After approval of the topics the PGT's will formulate research proposals for each topic that they will submit to the Institutional research Forum.
- After approval by IRF, PGT's will initiate data collection and they will be supervised at every step of their research by their supervisors till manuscript writing.
- They will be facilitated by Data analysis centre of ORIC for sample size calculation, plagiarism check or statistical consultation.
- ➤ ORIC will also facilitate them in selection and submission of original articles to the target journals.

B. POST GRADUATE TRAINEE'S DISSERTATION ENCODE:

- If the PGT will be interested in submitting a dissertation to CPSP instead of publishing two original articles', the supervisor will guide and facilitate him/her in topic selection in the research units of respective departments that will be sent to Deans for approval.
- After approval of the topics the PGT's will formulate research proposal/synopsis for their dissertation that will be submitted to the Institutional research Forum.
- After approval of IRF, PGT's will then submit their synopsis to CPSP and once their synopsis are accepted by CPSP, they will start data collection under guidance of their supervisors in respective research units till dissertation writing is completed.
- They will also be facilitated by Data analysis centre of ORIC for sample size calculation, plagiarism check or statistical consultation.
- > ORIC will also facilitate them in write up and submission of dissertation to CPSP.

MD & MPHIL TRAINEES RESEARCH PROGRAM OF RMU:

- The MD /MPhil trainees (MT's) research of RMU will be under direct supervision of the Board of Advanced Studies & Research (BASR).
- The supervisors of the MT's of various specialties will be assigned by BASR who on nomination will first facilitate the trainees in selection of the topics of the thesis.
- After selection of the topics, the MT's will seek approval of topics from the Dean of respective specialties.
- Then they will formulate their synopsis as per BASR guidelines, under direct supervision of their supervisors at the research units of respective departments.
- The research topics of the clinical subjects should have 30% component related to basic sciences and 70% component related to clinical sciences.
- The synopsis of thesis should be submitted by the end of second year of MD/MPhil program.
- They will also be facilitated by Data analysis centre of ORIC for sample size calculation, plagiarism check or statistical consultation.
- > The formulated synopsis will then be presented to Institutional research forum.



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- After appraisal of IRF, the synopsis will then be submitted to the Board of Advanced Studies for consideration, through the Deans of respective specialties/The Principal/Head of Institution.
- After approval by BASR, the MT's will initiate the data collection and execution of their research project under direct supervision of their supervisor's and the Deans.
- They will be concurrently facilitated by the ORIC and its various departments till submission of thesis and its evaluation and defense.

PhD OR DOCTORAL RESEARCH PROGRAM OF RMU:

- The Doctoral research (DR) of RMU will be under direct supervision of the Board of Advanced Studies & Research (BASR).
- The supervisors of the DR of various specialties will be assigned by BASR who on nomination will first facilitate the trainees in selection of the topics of the thesis.
- The topics of the PHD scholars will be submitted to BASR that will review and appraise them.
- Then the scholars will formulate their synopsis as per BASR guidelines, under direct supervision of their supervisors and through facilitation by various departments of ORIC especially by Data analysis centre of ORIC for sample size calculation, plagiarism check or statistical consultation.
- > The formulated synopsis will then be presented to Institutional research forum.
- After appraisal of IRF, the synopsis will then be submitted to the Board of Advanced Studies for consideration, through The Principal/Head of Institution.
- After approval by BASR, the PhD scholars will initiate the data collection and execution of their research project under direct supervision of their supervisor's and the Deans.
- They will be concurrently facilitated by the ORIC and it's various departments till submission of thesis and its evaluation and defense.

RESEARCH TRAINING PROGRAM OF RMU

The research training program of RMU by conducting short term and long term training courses, workshops, symposium and lectures for Training of the undergraduates, Post

graduate trainees, MD trainees, doctoral scholars, faculty members and staff members of RMU in Research methodologies, research proposal development and relevant research aspects. ORIC will collaborate with national and international external agencies and foreign/visiting faculty regarding development and facilitation of research training courses and workshops. It will also train the faculty and students in literature review and online search regarding research in addition to plagiarism detection training. The data analysis office will offer hands on training courses on statistical packages and software, data entry, analysis and interpretation. Training courses will also be organized for qualitative research, data collection tools and techniques and its analysis by ORIC. The research training program will also generate resources for sustainability of research at RMU.

NATIONAL RESEARCH COLLABORATION PROGRAM OF RMU:

The objective of national research collaboration program will be to establish **collaborative research** partnerships and linkages of Rawalpindi Medical University with other national institution, universities, governmental and non- governmental organizations and national research funding agencies in areas of health systems research. RMU will also create opportunities for its students and scholars with produce National Collaborative Research Grants support. Collaborative projects will generate support for students, scholars, consultants, and research assistants, project-related travel, archival research, field work, technical support and services. It will also include facilitation in collaborative publications and collaborative seminars for dissemination of the results to the appropriate scholarly and public audiences.

INTERNATIONAL RESEARCH COLLABORATION PROGRAM OF RMU:

The international research collaboration program of RMU will aim to establish collaborative partnerships and linkages in the field of health systems research between Rawalpindi Medical University and other international institutions, universities, organizations and international research funding agencies. By involvement of researchers and scientists across borders and from multiple nations, scientific research will open



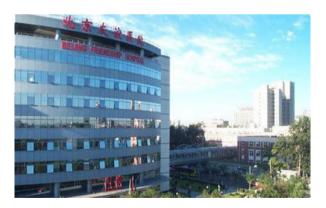
RESEARCH VISION OF RAWALPINDI MEDICAL UNIVERSITY

pavement for new opportunities and capabilities. It will also improve the research training and teaching through development of collaborative research courses, distant learning, short term exchange of academic personnel and visiting faculty, internships and electives. International collaboration program of RMU will also create opportunities for its students, faculty and scholars with produce international Collaborative Research Grants support. International Collaborative projects will generate support for students, faculty, scholars, consultants, and research assistants, project-related travel, archival research, field work, technical support and services. It will also include facilitation in international collaborative publications and joint seminars for dissemination of the results to the appropriate scholarly and public audiences.



University of York, UK

Wigan and Leigh Hospital UK



Beijing Friendship Hospital China

VISION OF COMMUNITY RESEARCH OF RAWALPINDI MEDICAL UNIVERSITY

About Rawalpindi Medical University:

Rawalpindi Medical University has been awarded the Charter through the Rawalpindi Medical University Ordinance 2017 (Ordinance No.V of 2017) for promotion of medical training, research, education and to achieve highest standards for patient care in the country. The University is envisioned to be a research-intense university, where its departments and institutes are envisaged to grow and develop as centers of excellence in their own fields of specialization. The following document is a concept note to provide an overview of RMU research model inline with the RMU vision 2027 and Government of Pakistan National health Vision 2025.

National Health Vision 2016-2025 Government of Pakistan

"To improve the health of all Pakistanis, particularly women and children, through universal access to affordable quality essential health services, and delivered through resilient and responsive health system, ready to attain Sustainable Development Goals and fulfill its other global health responsibilities".

RMU Community Research Vision 2027:

"A research-intensive university with the core focus to develop indigenous models of research and education to inform health service. RMU will develop and promote public-private partnerships with academia, policy think-tanks, non-government organizations and global experts to develop models of research, education and services sensitive to local needs and responsive to local realities".

ABOUT RAWALPINDI DISTRICT:

District Rawalpindi takes its name from its headquarter town "Rawalpindi" which means the abode of Rawals, a tribe. This district is situated in the northwestern part of Pakistan. It is bounded on the north by Islamabad Capital territory, Abbotabad and Haripur Districts of NWFP; on the south by Chakwal and Jhelum districts and on the west by Attock district. The total area of the district is 52864 square kilometers.

Administratively, district Rawalpindi is divided into 7 tehsils i.e. Rawalpindi, Gujar Khan, Murree, Kahuta, Taxila, KotliSattian and KallarSyedan (recently declared). It consists of 168 union councils including 114 rural and 54 urban ones whose elected representatives formulate Zilla and tehsil councils. Political constituencies include 7 national seats and 14 provincial seats of legislative assemblies. This district is well connected to other districts by the Grand Trunk (GT) Road, Silk Road, Motorway and rail network. GT road runs parallel to the main line of Pakistan Railways across the district. Rawalpindi has two military airports as well as Islamabad International Airport.





Majority of the population living in urban areas is engaged in trade, industries and government services. In rural areas, the source of earning of most of people is through agriculture and dairy farming.

DEMOGRAPHIC INFORMATION

Demographic information is given in the following tables:

Demographic profile

INDICATORS	VALUE	INDICATORS	VALUE
Total population	4.2M	Urban population	2,034719
Tehsil Gujar Khan	701,788	Rural population	2,218,212
Tehsil Taxila	517,812	Population density (persons per sq.km)	905
Tehsils Kahuta and KallarSyedan	445,586	Sex ratio (number of males over 100 females) at birth	92
Tehsil KotliSattian	117,325	Population annual growth rate	2.7%
Tehsil Murree	251,031		
Tehsil Rawalpindi	2,219,389		

SOCIOECONOMIC AND HEALTH INDICATORS

Selected socio-economic (SE) and health indicators of Rawalpindi district are given in Table 2. The sources include the multiple cluster indicators survey (MICS) 2008, Pakistan demographic and health survey (PDHS) 2006-7, immunization coverage evaluation survey Pakistan (CES) 2006-7.

Socio-economic and Health indicators

Indicators	Value	Indicators	Value
Districtspecificfigures Literacy rate	MICS 2007-08 81%		
Income per capita*	-	Malnutrition (Women)	24%
Infant mortality rate (IMR)	40 per 1000 live births	% children<12 months fully immunized	98% (EDOH)
Under 5 Mortality rate(U5MR)	52 per 1000 livebirths		91% (CES)
Provincial figures	PDHS 2006-07		
Maternalmortality ratio	227 per 100,000 live births		

^{*}Data not available

DISTRICT HEALTH SYSTEM-ADMINISTRATIVE SETUP:

District Health System in Pakistan is organized at Primary, Secondary and Tertiary healthcare levels. Under the newly notified health system established under Punjab Local Government Act 2003, the DistrictHealth Authority (DHA) led by the DCO and assisted by the CEO Health is the governing body of District Health system. The DHA is responsible for monitoring all health facilities in a district as well as other health-related issues, including construction of new hospitals, dispensaries, basic health centres, new blocks in hospitals, construction of new departments, promotions of doctors and nurses, suspensions, budget approval, enrolment of new staff and monitoring of health centres in districts. The newly proposed DHAs will comprise members of the district administration, local bodies representatives and doctors. They will be vested with special powers under Punjab District Authorities (Composition) Rules 2016

to take action against those not performing their duties according to rules and regulations.



District Health System in Pakistan

SERVICES AT FIRST LEVEL CARE FACILITIES:

Maternal and Newborn Health, Child Health and Development, Nutrition, Communicable diseases, Non-communicable disease including mental health, Basic Diagnostic services, Drug dispensing/management, Minor surgical procedure, Basicemergency/first aid, Allied services, Selective outreach services, Dental care

SERVICES AT SECONDARY LEVEL CARE FACILITIES

- a. Preventive services: Basic Maternal care, Immunization, MentalHealth, Major micronutrient supplement, screening for common health problems, Outreach and community services
- b. Promotive services: Health education and promotion
- c. Curative services: Basic and comprehensive emergency obstetrics and neonatal care, IMNCI, Medical & Surgical outpatient department and indoor services, Mortality Reviews, Emergency Services, Blood transfusion services, Diagnostic services
- d. Rehabilitative services: Physiotherapy, Psychiatry, Psychological, Social and Palliative

RMU Community Research Model:

PARTNERSHIPS & COLLABORATIONS-GUIDING PRINCIPLE OF RMU RESEARCH MODEL:

To realize the vision of Universal Health Coverage(UHC) in district Rawalpindi, RMU will collaborate with the District Health Authority (DHA)-district health department Rawalpindi, national and provincial ministries of health, international and national-public and private-health policy, implementation, academic, funding partners and RMC alumni to conduct operational, implementation, health policy and system research to inform service. This will be achieved by signing MOUs with relevant bodies over next decade.

ESTABLISHING THE CENTER FOR GLOBAL HEALTH AT RMU:

Under RMU Vision 2027, various faculties at RMU will establish Centers of Excellence under the Center for Global Health at RMU.

Vision:

To be the world leading center for global health and developmentpromoting health equity and working towards achieving Universal Health Coverage (UHC) in Pakistan and low resource settings globally.

Mission:

To prepare the next generation of public health researchers and experts for global health and develop indigenous, evidence based models of service delivery in order to promote health equity and reduce the burden of disease in Pakistan and in other low resource settings globally.

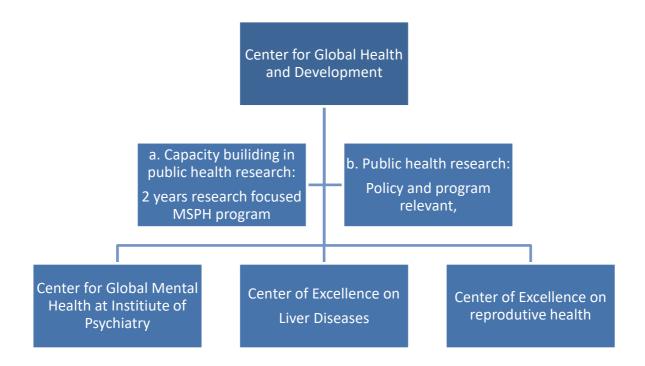
Focus:

Through policy-relevant research and the education to train futureglobal health leaders we propose to focus on the three most pressing health problems—poverty, disease, and inequity—with emphasis on infectious diseases, chronic diseases including mental health,



health financing, health policy, reproductive health, maternal health, child survival and early child development, adolescent health and research and evaluation methods. Under the Center of Global Health, relevant faculties at RMU will lead the development of respective Centers of Excellence.

Conceptual diagram for CGH at RMU



PROPOSED ACTIONS

To materialize this vision two core activities proposed are

- a). To create an administrative framework of Center for Global Health to bring different departments/specialties of RMU (Medicine and allied, Surgery and allied, Obstetrics and Gynecology, Pathology etc), allied health, other governmental and non-governmental partners together on the topic of Global Health and Development. b). To appoint relevant faculty.
- c). To sign MoU's at local, regional, national and international level with relevant counterparts.
- d). To develop a multidisciplinary 2 years research focused Master of Science (MSPH) in Public Health program with focus on health systems and its challenges in developing countries. The center will impart practice-based education with on-the-ground experience, and coursework that would teach skills relevant in running programs to reduce disease and inequality in low-income countries like Pakistan.

Each participating department/ specialty / partner will be expected to develop specialization modules relevant to their discipline/interest, develop new training opportunities such as fellowships, short courses, online CPD, foster national and international collaborations and generate research funds to sustain their research and academic activities.

e). To create administrative framework for fostering such activities and collaborations.

Taking health systems research to the district level led by a Medical University: a new approach to accelerate progress in global health

In global health, there is growing renewed trust in first level care as the best approach for ensuring equity in the delivery of essential health services and achieving universal health coverage. However, Pakistan with one of the most widely spread district health system networks in the region, has not delivered at the expected capacity. A series of health system reform agendas are now stipulated which include the promulgation of an essential health service package, public private partnerships and a people-centred focus. RMU with its faculty, alumni network, national and international partners and funders will provide the platform and leadership through the center for Global Health and relevant Centers of Excellence to work together to improve the overall performance of the district health system.

From the ground-up-strengthening health systems at district level:

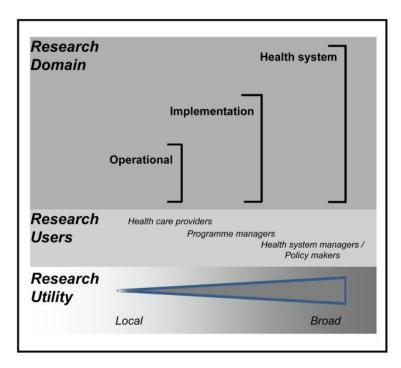
Through the Center for Global Health and its affiliated Centers of Excellence, the focus of health policy and system research will be the activities across all levels of the health system including community, health center, hospital, and district leadership, to improve health care access, quality, delivery, and health outcomes. Interventions will be concentrated on priority areas developed in consultation with relevant stakeholders. Operational, implementation, health policy and system researches will be conducted by multi-disciplinary teams to achieve Universal Health Coverage (UHC) in district Rawalpindi.

The RMU research model will be aligned with the World Health Organization's six health systems building blocks design.



TYPES OF HEALTH SYSTEMS RESEARCH

Research Domain	Primary Characteristic		
	Focus of the Research	Users of the Research	Utility of the Research
		Outputs	Outputs
Operational	Operational issues of	Health care	Local
	specific health	providers	
	programmes	programme	
		managers	
Implementation	Implementation strategies	Programme	Local/broad
	for specific products or	managers, R&D	
	services	managers	
Health System	Issues affecting some or	Health system	Broad
	all of the building blocks	managers, policy	
	of a health system	makers	



Research domains, users and utility in health systems

Implementation research- a key focus of research at RMU:

Many effective strategies for management of primary care conditionshave been developed and tested, but implementation at scale often hasbeen disappointing. In order to help bridge the widely described "knowledge- action gap" and contribute to the emerging field of implementation research, the faculty, students, and researchers at RMU will partner with international and national experts in the respective fields to address key implementation science questions in a timely manner. The data on effectiveness and cost-effectiveness of intervention programs will be evaluated.

A portfolio of health systems strengthening projects:

Through the respective departments, faculties and centers of excellence at RMU, a number of research and service oriented projects will be launched in the 7 Sub-districts of Rawalpindi over next 10 years. The Board of Advanced Studies and Research, RMU will approve the detailed work-plans which will be developed by respective partners. The key focus of projects will be on strengthening first and second level care. The projects will include community-based activities to build demand and expand access to care, and University led health center based efforts to improve service quality and efforts to strengthen health systemsmanagement.

Ultimate impact of RMU led Research Model:

Provision of University led, evidence based, equitable (accessible, quality and cost effective), comprehensive, integrated, responsive and sustainable Universal Health Coverage (UHC) in district Rawalpindi.