



Dow University of Health Sciences

Standardized Annual Report

For FY 2013-14

Contents	Page No.
Vice Chancellor Message	5
Executive Summary	6
About the University	7
Chapter 1 : Academic Activities	25
1.1 Undergraduate and Postgraduate Programmes	26
1.2 MS and Ph.D programmes	28
1.3 Academic achievements	28
1.4 Foreign Academic Linkages	33
1.5 Honours and Awards	34
1.6 Institutional Linkages	34
Chapter 2 : Research and Development	35
2.1 R&D- An Overview	36
2.2 Projects (2.2.1 Completed) (2.2.2 Newly Launched)	39
2.3 Publications	39
2.4 Conferences, Seminars and Workshops, etc.	40
2.5 Research Journals	43
2.6 Research Collaboration	44
2.6.1 Indigenous	44
2.6.2 Foreign Linkages	44
2.6.3 Funding grants for R&D	45
2.6.4 Operation of Office of Research, Innovation and Commercialization (ORIC)	46
Chapter 3 : Quality Assurance	48
3.1 Impact of Quality Assurance in the University	49
3.2 Quality Enhancement Cell	49
3.3 Membership of Associations/ Networks	52
3.4 Accreditation of Programmes form relevant councils	52
Chapter 4 : Faculty Development	54
4.1 Faculty development programmes(MS/PHD local + Foreign)	56
4.2 Returned Scholars	57

4.3 Present Scholars	58
4.4 Pre-Service and in-Service Professional development programmes	59
4.5 Achievement of Foreign faculty	63
Chapter 5 : Access	69
5.1 Basic Enrolment	70
5.2 Equity	77
5.3 Gender-wise Detail	77
5.4 Employability	77
5.5 Faculty-student ratio	77
Chapter 6 : Universities Building Economies	78
6.1 University-Industry Linkage	79
6.2 New Initiatives	79
6.3 Technology Incubation Centre	81
6.4 Patents/ Trademarks	82
6.5 Internship and Placement Office	82
6.6 Student Counseling and Career Guidance	83
Chapter 7 : Strengthening Physical Infrastructure	84
7.1 Development project (Laboratories, Libraries, etc.)	85
7.2 Research Equipment	85
7.3 Construction projects	86
Chapter 8 : Strengthening Technological Infrastructure	89
8.1 Digital Library	90
8.2 PERN	91
8.3 Video Conferencing	92
8.4 Campus Management Solution	94
8.5 Web Portal	96
8.6 Development of Online Admission System	98
Chapter 9 : Universities building Communities	100
9.1 University-community interaction	101
9.2 University's role in building community	104

9.3 Alumni Affairs : Outstanding Achievements etc.	108
Chapter 10 : Sports	109
10.1 Inter-departmental sports	110
10.2 Participation in national championships	110
10.3 Achievements at national level	110
10.4 Incentives and honors/awards for sports persons	111
Chapter 11 : Universities Building Leadership	112
11.1 Faculty Leadership (Awards and representation in Govt. policy making committees, memberships on various Councils etc.)	113
11.2 Student Leadership (Co-curricular Activities: University Dramas exhibitions, expos, competitions, debates at national and international.	119
Chapter 12 : Finance	120
12.1 Annual statement of Accounts	121
12.2 Financial year at a glance	121
12.3 Audit Report	121
12.4 Development budget	121
12.5 Recurring budget	121
12.6 Self-generated income	121
12.7 SAP related activities	121
12.8 Trend of per student spending	121
Chapter 13 : University Governance	123
13.1 Syndicate meetings	124
13.2 Academic Council meetings	126
13.3 Board of Advanced, studies meetings	127
Chapter 14 : Office of Resource Generation/Development	128
14.1 Initiatives and implementation	129
14.2 Future Plans	130
Chapter 15 : Health Centre/Medical Facilities	133
15.1 Medical Facilities available	134
15.2 Counseling for stress reduction	142

Vice Chancellor's Message



Dr. Professor Masood Hameed Khan
Tamgha-e-Imtiaz (T.I.)
PhD (Hon), FCPS (Pak), FRCP (Edin), FRCP (London),
Professor of Medicine
FOUNDING VICE CHANCELLOR
DOW UNIVERSITY OF HEALTH SCIENCES

The blessings of Almighty Allah resulted in great achievements at Dow University of Health Sciences during last eleven years. Alhamdulillah, the Vision & Mission conceived initially to be completed by 2020, have already been achieved by 2014 with accomplishments of major milestones.

The success of DUHS has also been acknowledged and praised by the auditors of an International organization Vincotte, Brussels for ISO certification (ISO 9001:2008)

All this success has been achieved with the blessings of Almighty Allah and the hard work with dedication of the DUHS Faculty, Principals and Directors of various Colleges & Institutes as well as the support staff of Dow University of Health Sciences.

Executive Summary

Dow University of Health Sciences is one of the most renowned educational institutions of Pakistan. Since its inception in 2003, this University has been the fastest growing healthcare institution of the country. The University has the distinction of being the largest medical university of the country with more than nineteen separate Institutes, which are providing education to over 5000 students.

The Dow University of Health Sciences (DUHS) has both the undergraduate and postgraduate programs that cater the needs in healthcare sciences by providing quality human resources. The University provides excellent academic facilities through its fully equipped laboratories, museums, information technology including video conferencing facility besides good logistic facilities at departments, hostels and the campuses in general.

At global level, the research creates a demarcation between the curricula of undergraduate and graduate level studies. DUHS also puts much emphasis to integrate research as part of regular curriculum as well as community work. The research when taught to students in the beginning develops their habit of learning and acquiring information through primary data sources.

Students have opportunities to participate in hands on training workshops and specialist courses at Professional Development Centre (PDC) of the university, which is fully equipped with manikins, simulators, simulating I.C.U, and operation theatre besides other required equipments for the training of postgraduates. There is a separate skills lab for the training of undergraduates.

The Dow University of Health Sciences, since its inception has been focusing on community services to provide preventive, diagnostic and treatment facilities for community health care specially to the under privileged class. The students of various undergraduate and postgraduate programs of DUHS are also actively involved with the faculty members in all the Civic Engagements of DUHS.

About the University

VISION

Be an academic leader by generating creative, collaborative, contextual resources to improve health an education by all possible means.

MISSION

To provide leadership in creating and imparting knowledge through excellence in research and education with the aim to provide cost effective, contextually relevant and quality community services through its faculty, staff and graduates, with continuous efforts for improvement through reflection and learning.

GOALS

The defined GOALS include:

- Development and utilization of contemporary approaches in education and research to nurture future leaders in health professions.
- Promote an atmosphere of mutual respect, trust and teamwork to achieve the common goal of health care.

- Share and enhance knowledge and expertise through national and international collaborations
- Foster research through scientific investigations and capacity building in collaborations with local and global organizations.
- Reward scholarship in research, education and services to dedicated & successful persons.
- Impart Health Education to the masses for improving health status of the community.
- Identify and resolve issues affecting health and well-being of the communities in collaboration with all the stakeholders.
- Identify and resolve issues affecting health and well-being of students, faculty, staff and administration.
- Promote and practice cost effective, evidence-based service in local context.
- Ensure dynamism of the Institution by reflecting, reviewing, and revising the practices.

Constituent Colleges/Institutions & Support Departments of DUHS

1. Dow Medical College (DMC)
2. Dow International Medical College (DIMC)
3. Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS)
4. Dow International Dental College (DIDC)
5. Dow Dental College (DDC)
6. Dow College of Pharmacy (DCoP)
7. Institutes of Medical Technology (IMT)
8. Institute of Physical Medicine & Rehabilitation (IPM&R)
9. National Institute of Diabetes & Endocrinology (NIDE)
10. Institute of Nursing (ION)
11. Institute of Postgraduate Studies (IPGS)
12. Institute of Health Management (IHM)
13. National Institute of Liver & GI Diseases (NILGID)
14. Sarwar Zuberi Liber Centre (SZLC)
15. Dow Institute of Radiology (DIR)
16. School of Public Health (SPH)
17. Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases (DIKIBD)
18. Institute of Biochemical, Biological and Pharmaceutical Sciences (IBBPS)
19. Ojha Institute of Chest Disease (OICD)

Departments/ Centres

1. Department of Research
2. Department of Post Graduate Studies
3. Professional Development Centre (PDC)
4. Office of Research, Innovation, and Commercialization (ORIC).
5. Information Technology Department (IT)
6. Campus Management Solution (CMS)
7. Quality Enhancement Cell (QEC)
8. Finance Department
9. Planning and Development Department
10. Examination Department
11. Question Bank (Q Bank)

12. Admission Department
13. Clinical Trial Unit (CTU)
14. Laboratory Animal house
15. Library
16. Dow Vocational Technical Training Centre (DVTTC)
17. Learning Resource Centre (LRC)
18. Dow Diagnostic Research & Reference Laboratory (DDRRL)
19. Dow LEJ Campus
20. Sleep Lab (Polysomnography)
21. Thoracic Surgery Department at Ojha Campus
22. Bariatric Surgery Department at Ojha Campus
23. Day Care Centre at Ojha Campus
24. Centre of Cochlear Implant DUHS
25. Serobiological Centre DUHS (for anti-snake venom)

Brief Profiles Of Major Institutes/ Departments Offering Academic Programs

1. Dow Medical College (DMC)

Dow Medical College (DMC) is one of the oldest medical college in Sindh and the second oldest in Pakistan. It was established in 1945. It has a highly qualified and experienced faculty who has been involved in the teaching and training of medical students since the establishment of the college. Over more than 60 years, the college has produced around 17 thousands alumni who have been serving with distinction all over the world. It has attached to Civil Hospital Karachi, Pakistan's largest teaching hospital with departments of almost all major specialties with more than 2000 bed occupancy. The students are imparted clinical teaching in this hospital.

Teaching is on semester basis. The five years course has been divided in 10 semesters. A new system of integrated teaching comprises of applied knowledge in which the students are taught basic subjects in the usual manner, which is later on followed by clinically oriented teaching sessions to explain the clinical application of the basic knowledge. The alumni of Dow University of Health Sciences are serving all over the world in different capacities including senior academic positions, research scholars and clinicians.

2. Dow International Medical College (DIMC)

Dow International Medical College was established in order to facilitate children of overseas Pakistanis as they face various difficulties in entering into medical profession abroad. It is a 150 seat Medical College that has been recognized internationally as it has been included in INTERNATIONAL MEDICAL EDUCATION DIRECTORY (IMED).

The new building of DIMC is a specially designed building, having covered area of 200,000. sq.ft. The laboratories are fully equipped with most modern equipments including power lab, lecture halls, tutorial rooms and basic laboratories. These are fully air-conditioned and powerful generators provide electricity round the clock in case of power failure. State of the art gymnasium and sports complex provides co-curriculum activities to the students and faculty members. Separate hostels for boys and girls with MESS facilities are available along within the same campus with regularly monitored security system. Clinical training is provided in 800-bedded Dow University Hospital.

3. National Institutes of Diabetes and Endocrinology (NIDE)

NATIONAL INSTITUTE OF DIABETES & ENDOCRINOLOGY was established in 2006. It provides consultation and counseling of patients suffering from Diabetes and other Endocrine diseases. This institute is offering a two-year Master's program in Diabetes & Endocrinology. This institute is also conducting public awareness programs regularly as the prevalence of diabetes and endocrine diseases are on the rise in Pakistan. This institute has facilities for management and treatment of eye complications of diabetes through its Eye Care Center, which has the capability of performing:

- Complete Eye Examinations
- Screening for Diabetic Retinopathy
- Fundus Floresein Angiography
- Laser photocoagulation

More than 5000 patients have been registered until now. A comprehensive facility for diabetic comes from diet consultation, food care, early diagnosis and treatment based facilities for other endocrine diseases especially thyroid diseases, growth disorders and obesity.

4. Dow College of Pharmacy (DCOP)

Dow College of Pharmacy provides pharmacy education to its students by utilizing rich resources provided by the university. The Pharm D curriculum is designed to produce a scientifically and technically competent pharmacist who can apply this education in such a manner to provide maximum health care services to patients. It is the goal of all pharmacy schools / Institutes to prepare pharmacists who take up responsibility for the safety of patients and assures the provision of rational drug therapy. The college is working both in morning and evening shifts. This Program at Dow University is semester based having two semesters per year. There are total of 10 semesters during five years.

The college is well equipped with audiovisual enabled lecture halls, fully equipped laboratories for Pharmaceutics, Pharmacology, Pharmaceutical Chemistry, Pharmacognosy, Industrial Pharmacy, Quality Assurance, Instrumentation, Anatomy, Physiology and Pathology, Microbiology.

Academic activities at Dow College of Pharmacy are sub divided into four major disciplines:

- Pharmaceutics.
- Pharmacology.
- Pharmaceutical chemistry
- Pharmacognosy

5. Institute of Nursing (ION)

INSTITUTE OF NURSING (ION) was established in 2006 to prepare leaders in nursing and sufficient number of highly skilled and trained nursing professionals, to provide modern skilled preventive and curative health care, besides having research capabilities.

The Institute has full time highly qualified faculty who conducts the academic programs and the training. Guest lectures are also being conducted by eminent speakers from abroad, Agha Khan University and other reputable Institutes. Clinical Training to nurses is provided at the Dow University Hospital.

Pakistan Nursing Council has recognized this Institute in Sept. 2007. The institute is offering four years BSN (Bachelor of Science in Nursing), fast track BS course, Post RN (Registered Nursing) course and MSN (Masters in Nursing). In past couple of years, 300 nurses have done Bachelor in Nursing (BSN) from the Institute of Nursing, DUHS so far.

6. Dr. Ishrat-ul-Ibad Khan Institute of Oral Health Sciences (DIKIOHS)

DR. ISHRAT UL EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS) is offering the following programs:

- Bachelor in Dental Surgery (BDS)
- Bachelor in Dental Care Professionals (DCP)
- Masters in Dental Surgery (MDS)

This institute currently has:

The Dental College for imparting under-graduate dental education leading to the degree of Bachelor of Dental Surgery (BDS), fulfilling the requirements of the Pakistan Medical &

Dental Council (PM&DC). Training in all Basic and Clinical Dental sciences, and Community Dental Health is provided under the Semester System. Currently there are departments of Oral & Maxillofacial Surgery, Prosthodontics, Oral Pathology & Oral Microbiology, Oral Medicine, Periodontology, Oral Biology and Tooth Morphology, Sciences of Dental Materials, and Community Dentistry.

A subject specialist with supporting staff heads each department. This college is one of the four in the country, which has been permitted to enroll 100 undergraduate dental students every year.

b) The Dental Hospital. With 125 dental chairs, has Nine Out-patient Departments namely Oral Diagnosis, Oral Surgery, Oral Medicine, Oral Radiology, Periodontology, Prosthodontics, Crown & Bridge, Orthodontics and Operative Dentistry, Procedures including extraction of teeth, filling, root canal, capping and emergency oral treatment is offered. The clinical work at the hospital is augmented by best practice, good sterilization protocols and requisite gadgetry. All its departments are provided with material and equipment, which are further provided to patients at minimum cost.

c) Post Graduate Training and Research Centre of DIKIOHS is providing fellowship (FCPS) Part II training at the Departments of Orthodontics, Prosthodontics, and Oral Surgery, after being recognized by College of Physicians & Surgeon (CPSP).

SCHOOL OF DENTAL AUXILLARY SCIENCES of Dow University aims to produce Dental Technologists, Hygienists and other Dental Auxiliaries to meet the demands of new and more sophisticated Dental Care system in Pakistan, besides providing trained work force to ever-increasing Dental Surgeons.

7. Institute of Health Management (IHM)

INSTITUTE OF HEALTH MANAGEMENT (IHM) was established by DUHS in 2007 as the need was felt for development and improvement of management skills in Health care workers, Physicians, Dentists, Pharmacists, Nurses, and Medical Technologists etc.

Institute of Health Management (IHM) is a unique blend of partnerships with pharmaceutical industry, health care providers and hospitals of Pakistan.

The details of program under this institute include M.B.A (Master in Business Management), B.B.A (Bachelor in Business Management) and EMBA (Executive Master in Business Management).

8. Institute of Medical Technology (IMT)

Medical Technologists are recognized globally as important and essential members of the health care team, not only for routine medical and surgical care but also for emergency medicine, critical care and management of disaster victims. The Institute of Medical Technology of Dow University was established for Human resource development in these areas.

It offers a four years degree program in following specialties:

- Clinical Pathology
- Critical Care
- Operation Theatre
- Ophthalmology
- Perfusion Science Technology

It has eight semesters over four years and comprises of a core course where training is imparted in Basic Computer Skills, English proficiency, Behavioral Sciences, Research Methodology and Fundamentals of Basic Medical Sciences. The Institute has its own state of the art Skill Laboratory and a 26 station Digital library with Internet and PERN connectivity. Practical classes are held in well-equipped Science laboratories.

Additional training programs at Institute of Medical Technology include:

- Adult Echocardiography / vascular technician course
- Cardiac technologist training program
- Electrocardiography training program
- Technician courses for ultrasound, radiography, CT scan and MRI

9. Institute of Physical Medicine and Rehabilitation (IPM&R)

INSTITUTE OF PHYSICAL MEDICINE & REHABILITATION (IPM&R) has been established to treat the people with disabilities caused by traffic accidents, bomb blasts and violence, natural disasters such as earthquakes, amputations due to diabetes and congenital abnormalities, besides other problems. There is an urgent need to provide them not only

rehabilitative care but also make changes at community level to help them live as independent members of society.

It is the first ever institute of its kind in Pakistan. It provides comprehensive multi-disciplinary rehabilitation services with state-of-the-art facilities to help patients in Cardiac Rehab, Neurological Rehab, Musculoskeletal Rehab., Pediatric Rehab, Speech and Language Rehab, for an active and healthy lifestyle of the patients. Hence, patients of stroke, TIA, head & spinal injury, GB syndrome, neuropathy, Polio, IHD, CCF, CABG, Chronic arthritis, backache and frozen shoulder etc. are being benefited.

This institute has three specialized schools:

The School of Occupational Therapy: offers a 4-year bachelor course in Occupational Therapy and is managing about 50 patients per day. Since its establishment, fifteen thousand patients have been treated.

The School of Physical Therapy is offering a 2-year MS Physiotherapy program and Doctor of Physiotherapy program. Foreign faculty members were recruited to introduce the MS Physiotherapy program and started comprehensive rehabilitation services, i.e. cardiac, neurological musculoskeletal and pediatric rehabilitation services. The attached department is currently providing physiotherapy services to more than 55 patients per day. Since its establishment, 14000 patients have been provided with physiotherapy services.

The School of Orthotics and Prosthetics offers 4-years Bachelor Courses in Orthotic & Prosthetic Sciences. It is the first of its kind in Pakistan, with qualified staff who help in the designing and fitting of Orthotics and Prosthesis (artificial limbs). More than 2000 people have been provided with artificial limb until now.

The Institute has multidisciplinary rehabilitation team, which includes Physiatrists, Physical Therapists, Occupational Therapists, Vocational Therapists, Orthotists and Prosthetists, Language and Swallowing Pathologist, Clinical Nutritionist and a Clinical Neurophysiologist, Speech therapist and special educationist. It also provides outpatient and community-based rehabilitation services.

10. DOW INTERNATIONAL DENTAL COLLEGE (DIDC)

Dow International Dental College (DIDC) has been established at Ojha Campus, to meet deficiency of dental surgeons in Pakistan as well as abroad. It is located on the Top floors of DIMC building and offers admissions mainly to overseas students, however due to acute deficiency of Dental Surgeons; the option for admission is also given to local students.

Pakistan Medical & Dental Council (PM&DC) has recognized this college in 2011 for fifty students. Two batches of BDS are presently studying at DIDC. This college is fully equipped with most modern facilities including regular library having books, journals, etc besides the digital library.

11. DOW DENTAL COLLEGE (DDC)

Pakistan Medical & Dental Council (PM&DC) has established Dow Dental College at DMC after the inspection and approval. The first batch of fifty students has been admitted in 2012. This Dental College is pursuing two types of courses one of five years undergraduate program, to be at Par with International requirement specially USA and the other one is routine four years program to meet local requirements of Pakistan.

This college and its dental hospital are fully equipped with most modern equipments in the laboratories along with simulators to teach clinical procedures at pre-clinical & clinical level. It has highly qualified and experienced faculty who carry out all dental procedures ranging from simple diagnostic procedures to extractions and implant placements.

Dentistry is a skill-based education in which great emphasis is laid on patient management and clinical teaching right from first year.

12. SARWAR ZUBERI LIVER CENTRE (SZLC)

Liver diseases are Third major problem in Pakistan, bulk of it is related to hepatitis B and C which requires close monitoring and early treatment even in the absence of symptoms. The Sarwar Zuberi Liver Centre was established by Dow University eight years back in May 2004 as the first liver Centre of Dow University, in a Medical Unit of Civil Hospital Karachi, to focus on individual patients as per requirement. Many facilities are offered to the patients at SZLC, which aims at diagnosis and treatment at minimum cost or with Zakat if applicable.

This Centre was named to honour legend of Hepatitis, Dr. Sarwar Jahan Zuberi, who met untimely death just few days before the inauguration of this liver Centre in 2004.

The treatment of chronic liver diseases is provided either by Zakat, Adopt a Patient Scheme or at 30% of the market cost, depending upon the affordability of the Patient.

Endoscopies and Liver biopsies are also performed. The data is computerized and several research papers have been presented or published. More than 80,000 patients have until now been registered at SZLC of Dow University of Health Sciences

13. NATIONAL INSTITUTE OF LIVER AND GI DISEASES (NILGID)

The National Institute of Liver & GI Diseases NILGID has been established at Ojha Campus. Presently one floor of Dow Hospital has been designated for NILGID.

Approximately 100 patients are seen and managed each day in NILGID OPD that comprise the full spectrum of liver and GI diseases ranging from functional dyspepsia to Hepatitis B and C, other liver diseases and gastrointestinal tumors. The OPD is conducted from 8 am to 8 pm.

NILGID has state of the art **ENDOSCOPIC EQUIPMENT** and the faculty has the expertise to perform all the GI endoscopic procedures. Approximately 20 to 25 endoscopic procedures are being done daily that includes both the diagnostic as well as therapeutic procedures; Gastrosopies, colonoscopies, polypectomies, and variceal band ligation are routinely being done. In addition, complex therapeutic procedures that involve fluoroscopy like ERCPs, stenting, dilatations are also increasingly being performed in the unit. The Endoscopy department provides round the clock coverage for all GI emergencies; the coverage also includes all public holidays.

NILGID has a novel facility of FIBROSCAN machine through which liver stiffness and fibrosis is measured noninvasively, first of its kind in Pakistan and presently is also in the process of starting Endoscopic Ultrasound, a unique modality incorporating Ultrasound probe within the endoscope, which would be the first in the huge Cosmopolitan city of Karachi. Even in Pakistan only two centres has this facility.

NILGID has dedicated **high dependency bleeding care unit** with trained staff to take care of variceal and non-variceal bleeders for prompt pre and post procedure management.

Various researches as well as randomized controlled trials are being done at NILGID; some of them have been presented in the premier conferences of Gastroenterology like American Association for the study of liver diseases (AASLD), and United European Gastroenterology week (UEGW).

Public Awareness program are regularly held to increase the awareness of GI diseases amongst masses particularly viral hepatitis seminars are conducted by our faculty and masses are educated regarding signs, symptoms and care of viral hepatitis.

Similarly free medical camps are also held routinely to screen people for Hepatitis B and C, with a large population taking part both in medical camps and in education programs.

14. DR. ISHRAT-UL-EBAD KHAN INSTITUTE OF BLOOD DISEASES (DIKIBD)

Dr. Ishrat-Ul-Ebad Khan Institute of Blood Diseases (DIEKBID) is a center of excellence in Haematology & related Health Care Management, Research and Diagnostics, established by DUHS in 2012.

This Institute has emerged with excellence in Technical, under graduate, Postgraduate Teaching, Training & Research program.

This institute has following components:

- 1. Haematology Section**
- 2. Blood Banking**
- 3. Thalassemia Support Program:** (for Blood Transfusion Dependent Patients)
- 4. Dow Thalassemia Assistance Program (Dow-TAP):** volunteer program for Awareness, Screening, Diagnosis & Pre-marriage/pre-marriage Counseling services with DNA analysis
- 5. Research & Development** in the field of Haematology
- 6. Post graduate Teaching / Training Programs**

The entire benefits of this Institute include:

- Quality Controlled and Screened Blood products like Packed Red Cells, FFP. Platelets & other blood components on “NO PROFIT NO LOSS BASIS” are provided to the public.
- Reliable resource for Haematology related Diagnostic services at an affordable price.
- Smooth running of Clinics for Thalassemia and Haemophilia.
- To establish a Registry for Leukaemia, lymphomas & other blood disorders.

15. SCHOOL OF PUBLIC HEALTH (SPH)

Public Health is an important component of health services that is often ignored in the developing world and highly emphasized in the developed world. Keeping in view the needs of Pakistani population, the DUHS took this initiative to establish the first public health school in a public sector university in Sindh Province.

Dow University of Health Sciences established the School of Public Health (SPH) at OJHA campus in 2012. The aim of this school is to improve the health of our population by addressing the major health issues. The programs at SPH include Master of Public Health, Master of Sciences (Biostatistics and Epidemiology), Master of Sciences in Public Health (Nutrition Sciences, Health Policy and Management, Social and Behavioral Sciences) and Master of Philosophy (Health Education). Pakistan Medical and Dental Council (PM&DC) has approved all these programs.

The SPH is also in process to develop a Ph.D program in public health, which is a major educational need of this time. This program will also offer prospective students to pursue their higher education in variety of different branches of public health such as epidemiology and biostatistics, health education and health economics etc.

The faculty and students of SPH are also conducting community based research and health activities. The SPH has various sections to focus separately such as epidemiology division (examining communicable and non-communicable diseases in Pakistani population), nutrition division (studying the role of nutrition in disease development and prognosis) and economic and policy group (examining the impact of economic indicators on health of Pakistani population and health policy).

16. DOW INSTITUTE OF RADIOLOGY

The Dow Radiology Complex was established in 2008 to have the highest quality medical imaging, research opportunities, and Radiology educational experiences. Besides providing economic benefits to the patients, the department of Imaging Services is committed to be at the forefront of new developments and clinical applications in the rapidly changing field of medical imaging.

Services include the provision of all modern diagnostic facilities like;

- X-rays
- Ultrasound (09 Nine Machines)
- Fluoroscopy
- Dexa Scan
- Echocardiography
- Mammography
- CT Scan (03 Three Machines)
- MRI (03 Three Machines including one open MRI for Claustrophobic patients).
- The Institute of Radiology at Ojha Campus has 2 MRI Machines (including 1.5 Tesla) and 2 CT Machines, which are functioning 24 hours.
- Considering the growing demands of patient a City Campus on Stadium Road has been established near TV Station named as ‘Dow LEJ Campus’ and it provides facilities of CT & MRI, 24 hrs.

Highly qualified and experienced faculty, staff, and technologists perform all the teachings and services at Dow Institute of Radiology.

17. OJHA INSTITUTE OF CHEST DISEASES (OICD)

The Ojha Institute of Chest Diseases (OICD) is also a constituent institute of the Dow University of Health Sciences, since its inception in Jan 2004. It was established in the early forties, as a TB sanatorium and now recognized as a center of excellence for Tuberculosis by the World Health Organization (WHO).

The diploma course in chest diseases (DTCD) is also conducted at OICD. It is also recognized for fellowship and membership courses in chest diseases.

FOUR OUT-PATIENT CLINICS of OICD in the periphery of the city are also functioning, these are chest clinics of Iqbal Yad, Nazimabad, Lyari and Malir, Each clinic has well-organized DOTS (Directly Observed Treatment), where these patients with TB are provided medicines and health education.

Daily about 600 patients visit these TB clinics for DOTS treatment and follow up.

TB HOSPITAL of 250 beds provides all possible facilities to indoor and outdoor patients for diagnosis and treatment of tuberculosis.

MULTI DRUG RESISTANT (MDR) TB is a great problem. In Pakistan about 15,000-20,000 tuberculosis patients presently suffering from Multi-Drug Resistant (MDR TB), each patient requires approx 500,000 Rs. for management including costly medicines and other logistics but at OICD, their treatment is free.

Vocational training program have specially been designed and introduced to engage regular TB patients, while undergoing treatment for at least 9 months, to engage them mentally and simultaneously help them to earn daily living.

18. INSTITUTE OF BIOCHEMICAL, BIOLOGICAL AND PHARMACEUTICAL SCIENCES (IBBPS)

Institute of Biochemical, Biological and Pharmaceutical Sciences (IBBPS), established in 2010 and formerly it was named as Institute of Pharmaceutical and Environmental Research (IPER). It is the first interdisciplinary institute of its kind in any medical university of Pakistan, which provides link between academia and industries.

This institute has now also been certified for bioavailability and bioequivalence of drugs. It is the great service to the pharmaceutical companies of Pakistan, who presently acquire services from outside Pakistan to have bioequivalence of their drugs for its microbiological testing, potency and efficacy.

The team of IBBPS is well trained from Germany, USA, Jordan, Pakistan etc and comprises of Ph.D. scientists, medical doctors, pharmacist, biotechnologist, microbiologist, biochemist,

This institute also provides facility of contract research organization (CRO, Bioequivalence/ bioavailability, clinical trials, survey, method development, trainings, analysis, lab scale pilot production extra.

The laboratories are equipped with high performance liquid chromatography, gas chromatography, spectrophotometer, lyophilizer, flame photometer, polar meter, Tintometer, Dissolution, Disintegrator etc. The Dow University has also signed a memorandum of understanding (MoU) with a local pharmaceutical company, to focus on production of high quality drugs in accordance with the critical health requirements of the country. This will particularly include anti snake venom, frequently required in rural and sub urban parts of Pakistan. Presently its production is in short hand thus collaboration efforts will fill up the gap.

19. INSTITUTE OF POST GRADUATE STUDIES (IPGS)

The postgraduate education in Dow University of Health Sciences is conducted under the overall supervision of the Institute of Postgraduate Studies, which is headed by the Vice Chancellor of the University. The University bodies such as Board of Advanced Studies and Research, Institutional (ethical) Review Board and Scientific Committee facilitates monitors both the research activity and the overall programs.

Dow University conducts 35 Ph.D, Masters, Fellowship, Diploma and Certificate programs. Each year around 150 FCPS students, complete training from Dow University of Health Sciences. To date 140 candidates have passed of M.Phil. MDS, MSBE, MS diabetes, MS Physiotherapy and MBA from Dow University.

IPGS has three major components.

1. Institute of Basic Medical Sciences (IBMS)
2. Department of Post Graduate Studies.
3. Department of Research.

Institute of Basic Medical Sciences (IBMS)

Institute of Basic Medical Sciences (IBMS) has been established for M.Phil. and PhD courses in Basic Sciences i.e. Anatomy, Physiology, Biochemistry, Pathology, Microbiology and Pharmacology to develop human resources. It is a part of medical research city. The building has spacious air-conditioned lecture halls and seminar rooms having necessary audiovisual multimedia facilities.

The contemporary techniques involved in basic sciences research activities, is conducted in the labs of different departments, which are well equipped with modern equipments for variety of anatomical, physiological, biochemical, hematological, pathological, pharmacological, immunological and molecular biological experiments for specific research. The curriculum has been designed with multidisciplinary approach, focusing at molecular and cellular level. In addition, core and supportive courses provide competencies in research Biostatistics, critical analysis, and interpersonal communication and computer skills. This institute is helping in bridging the deficiency gap of Basic Medical Sciences research in Pakistan.

Department of Post Graduate Studies

Department of Postgraduate Studies which is the administrative department deals with admission, conduction of courses, monitoring, liaison with other departments of university, , scheduling of examinations and certification. It also liaises with the regulatory authorities for recognition of the programs.

Department of Research.

Department of Research, which supervises research process in program with thesis such as M.Phil, M.S., M.D.S, and Ph.D. Programs.

Chapter 1

Academic Activities

❖ 1.1 Undergraduate and Postgraduate Programs:

Details of Undergraduate Programs

Institute	Program	DESCRIPTION	Speciality
DMC	MBBS	Bachelor of Medicine and Bachelors of Surgery	
DIMC	MBBS	Bachelor of Medicine and Bachelors of Surgery	
DIKIOHS	BDS	Bachelor of Dental Surgery	
DIDC	BDS	Bachelor of Dental Surgery	
DIKIOHS	BS-DCP	Dental Care Professional	Dental Technology
			Dental Hygienist
DCOP	PHARM-D	Doctor of Pharmacy (Pharm D)	
IMT	BSMT	BS Medical Tecnology In	Clinical Laboratory Sciences
			Critical Care
			Operation Theatre
			Ophthalmology
			Cardiovascular Perfusionist
IPMR	BSPMR	Bs Physical Medicine and Rehabilitation	BS Occupational Therapy
			BS Prosthetics and Orthotics
	DPT	Doctor of Physiotherapy	Rehabilitation
IHM	BBA	Bachelor of Business Administration	Health Management
			Pharmaceutical
			Marketng
			Finance+HRM+IT Management
ION	BSNUR	BS in Nursing (4 Year)	Nursing
	PRNBS	Post Rn BSc Nursing 2 Year Program	
	BSCNFT	Diploma in Nursing (One Year Fast Track Program)	
DIR	AAS	Associate of Applied Sciences	

POSTGRADUATE PROGRAMS OFFERED

1. Masters in Dental Surgery (MDS-Basic & Clinical) (4-Years Program)

1. Operative Dentistry	2. Oral Surgery	3. Prosthodontics	4. Orthodontics
5. Oral Biology	6. Oral Pathology	7. Dental Material	8. Comm. Dentistry

2. Masters in Science Dental Surgery (M. Sc.) (2-Years Program)
 - a. Operative Dentistry
 - b. Oral Surgery
 - c. Prosthodontics
 - d. Orthodontics
 - e. Oral Biology
 - f. Oral Pathology
 - g. Dental Material
 - h. Comm. Dentistry
 - i. Periodontology
 - j. Oral Medicine

3. Masters in Diabetics & Endocrinology (M.Sc. D.E)
4. Masters in Biostatistics and Epidemiology (MSBE)
5. Masters in Health Profession Education (MHPE)
6. Masters in Physiotherapy (MSPT)
7. Masters in Nursing (MSN)
8. Masters in Public Health (MPH)
9. Masters in Transfusion Medicine & Tissue Typing (MSTMTT)
10. Masters in Bio-Physics (MS-BPHY)
11. Masters in Business Administration (Mor. / Eve) (MBA)
 - a. A. Hospital Management B. Pharmaceutical Management C. Health Services Management
12. Masters in Science (Social & Behavioral Sciences) (MSPH)
13. Masters in Science (Health Policy and Management) (MHPM)
14. Masters of Science in (Nutritional Sciences) (MSNS)

TWO - YEARS CLINICAL DIPLOMA PROGRAMS:

- | | |
|---|------------|
| 1. Diploma in Family Medicine | (DFM) |
| 2. Diploma in Medical Jurisprudence | (DMJ) |
| a. Diploma in Cardiology | (Dip-Card) |
| 3. Diploma in Critical Care Medicine | (DCCM) |
| 4. Diploma in Tuberculosis & Chest Diseases | (DTCD) |
| 5. Diploma in Child Health | (DCH) |
| 6. Diploma in Dermatology | (D- Derm) |
| 7. Diploma in Radiology | (DMRD) |
| 8. Diploma in Anesthesiology | (DA) |
| 9. Diploma in Ophthalmology | (DO) |
| 10. Diploma in Psychiatric Medicine | (DPM) |
| 11. Diploma in Laryngo Otorhinology | (DLO) |

FCPS-II FELLOWSHIP TRAINING IN THE FOLLOWING SPECIALTIES (4-Years Program)

- | | | | |
|------------------|--------------------|--|-------------------------|
| 1. Medicine | 2. Surgery | 3. Gynae | 4. Paeds |
| 5. Cardiology | 6. Radiology | 7. Forensic Medicine | 8. Pulmonology |
| 9. Ophthalmology | 10. Anesthesiology | 11. Plastic Surgery | 12. Neurology |
| 13. ENT | 14. Psychiatry | 15. Community Medicine | 16. Operative Dentistry |
| 17. Oral Surgery | 18. Orthodontics | 19. Prosthodontics | 20. Cardiac Surgery |
| 21. Orthopedic | 22. Dermatology | 23. Physical Medicine and Rehabilitation | |

❖ **1.2 MS AND PH D PROGRAMMES**

MS/MD- MASTERS OF SURGERY/ DOCTOR OF MEDICINE PROGRAMS (5-Years Program)

MD-PROGRAMS SPECIALITIES

1. Internal Medicine 2. Neurology 3. Cardiology 4. Dermatology 5. Community Medicine 6. Pediatric 7. Critical Care Medicine 8. Family Medicine 9. Pulmonology 10. Anesthesiology 11. Psychiatry
12. Gastroenterology 13. Sports Medicine 14. Radiology

MS-PROGRAMS SPECIALITIES

1. General Surgery 2. Gynae & Obs. 3. Orthopedics Surgery 4. Plastic Surgery 5. Neuro Surgery
6. Cardiac Surgery 7. Ophthalmology 8. Paediatric Surgery 9. ENT

M. Phil & Ph. D. PROGRAMS:

PH. D. DENTAL, CLINICAL AND PUBLIC HEALTH SCIENCES

Ph.D. (Basic Sciences)

M. Phil & M. Phil, Leading to Ph. D.(Basic Sciences)

1. Anatomy 2. Physiology 3. Pharmacology 4. Biochemistry 5. Hematology 6. Medical Genetics
7. Histopathology 8. Medical Microbiology 9. Chemical Pathology 10. Bio-Technology 11. Molecular Pathology. 12. Molecular Biology 13. Molecular Medicine & Bioinformatics. 14. M. Phil Health Education and Promotion

M. Phil & M. Phil Leading to Ph. D (Institute of Biological, Bio-chemical and Pharmaceutical Sciences)

1. **Pharmacology** 2. **Pharmaceutics** 3. **Pharmaceutical Chemistry** 4. **Pharmacognosy**

❖ **1.3 Academic Achievements:**

- **Student Passed-out During the Year 2013-14**

During the year 2013 and 2014, 2162 students passed out under various undergraduate programs, and 116 postgraduate students were passed out and completed their training.

The details are given as below:

DOW UNIVERSITY OF HEALTH SCIENCES

STATISTICS OF PASSOUT AND COMPLETE OF TRAINING STUDENTS

DETAIL OF UNDERGRADUATE PROGRAMS

CAMPUS	PROGRAM	DESCRIPTION	PLAN	2013		2014		TOTAL
				Male	Female	Male	Female	
Undergraduate Degree Programs								
DMC	MBBS	BACHELOR OF MEDICINE AND BACHELORS OF SURGERY		89	210	78	221	598
SMC				84	225	59	193	561
DIMC				38	50	31	30	149
DIKIOHS	BDS	BACHELOR OF DENTAL SURGERY		5	93	16	86	200
	BS-DCP	BS DENTAL CARE PROFESSIONAL	DENTAL TECHNOLOGY	3	9	4	10	26
			DENTAL HYGIENIST		12	1	19	32
DCOP	PHARM-D	DOCTOR OF PHARMACY		29	86	26	84	225
IMT	BSMT	BS MEDICAL TECNOLOGY	CLINICAL LABORATORY SCIENCES	3	20	1	20	44
			RESPIRATORY & CRITICAL CARE TECHNOLOGY	16	19	2	20	57

			OPERATION THEATRE	2	17	3	20	42
			OPHTHALMOLOGY TECHNOLOGY	1	6	2	7	16
			PERFUSSION SCIENCES					0
IPM&R	BSPMR	BS PHYSICAL MEDICINE AND REHABLITATION	BS OCCUPATIONAL THERAPY	3	17	1	24	45
			BS PROSTHETICS AND ORTHETICS			11	11	22
	BBA	BACHELOR OF BUSINESS ADMINISTRATION						0
ION	BSNUR	BS IN NURSING (4 Year Program)		17	20			37
	PRNBS	POST RN BSc NURSING (2 Year Program)		12	16	28	42	98
	BSCNFT	DIPLOMA IN NURSING (FAST TRACK) (1 Year Program)		2	8			10
UNDER GRADUATE TOTAL								2162

DETAIL OF POST GRADUATE PROGRAMS

CAMPUS	PROGRAM	DESCRIPTION	PLAN	2013		2014		TOTAL
				Male	Female	Male	Female	
Post graduate Programs								
Fellowship Programs								
DMC	FCPS	FELLOWSHIP OF THE COLLEGE OF PHYSICIANS AND SURGEONS						0
	MCPS	MEMBERSHIP OF THE COLLEGE OF PHYSICIANS AND SURGEONS						0
Master's Degree Programs								
DIKIOHS	MDS	MASTERS OF DENTAL SURGERY				2	7	9
DMC	MHPE	MASTERS IN HEALTH PROFESSIONAL EDUCATION		5		1	0	6
	MSBE	MASTER OF BIOSTATISTICS AND EPIDEMIOLOGY				1	0	1
	MSBPHY	MS BIO PHYSICS		4	4	2	0	10
IPMR	MSPT	MASTERS IN PHYSIOTHERAPY		2	5	0	3	10
IHM	MBA	MASTERS OF BUSINESS ADMINISTRATION		13	14	4	0	31
	EMBA	EXECUTIVE MASTERS OF BUSINESS ADMINISTRATION						0
ION	MSNUR	MASTERS IN NURSING						0
NIDE	MScDE	MASTER OF DIABETES AND ENDOCRINOLOGY				4	2	6

Diploma Programs								
OICD	DTCD	DIPLOMA IN TUBERCLOSIS AND CHEST DISEASES		2	2			4
DMC	DMJ	DIPLOMA IN MEDICAL JURIPEDANCE		1	1			2
	DCH	DIPLOMA IN CHILD HEALTH		2				2
	DCARD	DIPLOMA IN CARDIOLOGY		18	4			22
NICVD	DCARED	DIPLOMA IN CARDIOLOGY						0
OJHA	ULTSD	ULTRASOUND			4			4
	ECARD	ECHOCARDIOGRAPHY						0
--								
IBMS	PHD	PHD			1	0	1	2
	MPHIL	MPHILL		2	2	1	2	7
POST GRADUATE TOTAL								116
GRAND TOTAL OF UNDER+POST GRADUATE								2278

Certificate Programs								
DMC	CRCP							0
DMC	SRC	Seals Representative Course						0
TOTAL OF CERTIFICATE								0
GRAND TOTAL								2278

- **Research Papers published in HEC recognized X and Y category journals**

The detail of Research Papers published in HEC recognized X and Y category journals between 01-01-2013 to 31-12-2014 is provided in Annexure A.

❖ 1.4 Foreign Academic Linkages:

The Dow University of Health Sciences is affiliated with the following foreign medical boards/associations/universities.

- American Medical Residency Certification Board (AMRCB)
- Educational Commission for Foreign Medical Graduates (ECFMG)
- Foundation for Advancement of International Medical Education and Research (FAIMER).
- Global Health Learning Opportunities (GHLO), Collaborative of American Association of Medical Colleges (AAMC)
- Medical Board of California - The required necessary documentation for affiliation has already been submitted.
- University of Illinois-Chicago
- University of Massachusetts,
- University of Louisville
- University of Malaysia
- University of Maryland.
- University of Vanderbilt.
- DUHS has the honor of being designated as the International Training Centre of American Heart Association (AHA) for BLS, ACLS and PALS in April 2010. Dow International Medical College and National Institute of Cardiovascular Diseases are training sites affiliated with DUHS. The membership of DUHS as regional training centre of AHA was renewed for the second time in September 2014.
- In May 2010, DUHS in collaboration with APPNA Merit Net USA started a Video Conference Program for updating the knowledge of its faculty & students. This is regularly conducted every Monday on both campuses.

- PPQP – Government of Pakistan launched a project titled “President’s Program)” for the Care of Highly Qualified Overseas Pakistanis (PPQP) during 2009-2010. The project organizes short duration visits of highly qualified expatriate Pakistanis to public and private sector institutes. Under this program, five (5) highly qualified experts visited DUHS in 2014 and shared their knowledge and technical expertise with PGs, residents and faculty. Experts included Dr. Asma Jamil Sadiq, Director Division of Developmental and Behavioral Pediatrics, USA, Dr. Rizwan Alvi, Consultant Plastic Surgeon, UK, Prof. Sultan Ahmed, Professor of Medicine, Rutgers University, USA, Dr. Shakila Perveen, Hematologist, Mayo Clinic College of Medicine, USA, Dr. Anisa Hassan, Hematologist /oncologist USA.

❖ **1.5 Honors and Awards:**

- Prof. Dr. Nazli Hossain - Best Teacher Award for 2013-14 by HEC.
- Tamgha-e-Imtiaz was awarded to Prof. Rana Qamar Masood for her services in the field of Medicine in 2013.

❖ **1.6 Institutional Linkages:**

MoU has been signed with following foreign universities for clinical training/electives of MBBS students:

- University of Illinois-Chicago
- University of Massachusetts,
- University of Louisville
- University of Malaysia
- University of Maryland.
- University of Vanderbilt.
- Collaboration with University of North Carolina for civic engagement of students for capacity building.
- MOU signed between Dow University of Health Sciences & Brunel University, UK for collaborative on Research project Inclusive Division in Pakistan.

Chapter 2

Research and Development

❖ **2.1 R & D – An Overview:**

The establishment of Department of Research took place with the inception of Dow University of Health Sciences. Since then, Research Department is providing its services to enhance university position in research, training and consultation areas. The particular activities of the department are briefly highlighted below:

Postgraduate Synopsis and Thesis Review:

Scientific Research Committee: This committee was formed in November, 2012 with the approval of Board of Advanced Studies and Research of DUHS. The committee consisted of faculty of DUHS from various fields. The main role of this committee is to set the guidelines for the research in line with the country's need and requirements. Furthermore, committee also evaluate scientific quality and advise modifications (if necessary) on the research proposals submitted by the university faculty and postgraduate students.

Board of Advanced Studies and Research: All the official works related to this Board are administered and organized under Research Department. The Board consists of 10 members under the Chairmanship of the Vice Chancellor. The functions of this board are:

01. To advise authorities on all policy matters connected with the promotion of Advanced Studies and Research in university.
02. To propose regulations regarding the award of research degrees.
03. To appoint supervisors for research students to determine the subject of their thesis.
04. To recommend panels of names of paper setters and examiners for research examination after considering the proposals of Board of Studies in this behalf; and
05. To perform such other functions as may be prescribed by the statutes.

Furthermore, the Board also gives final approval for the synopsis.

Thesis Review and Examination Processes: To search reviewers and examiners of postgraduate thesis of DUHS is also performed by the departmental members. Sending abstracts, taking approvals, dispatching theses and arrange examination days stuffs are the major tasks required during the process.

Journal of Dow University of Health Sciences: Department of Research, DUHS administered and published Journal of Dow University of Health Sciences (JDUHS) 3 times a year. This journal is approved by PMRC and indexed in IMEMR, PakMediNet and CABI. The journal is also recognized by Higher Education Commission (HEC), Pakistan. From this year, online submission and review process of the manuscripts has already been started.

Institutional Review Board: Department also administered and organized Institutional Review Board of DUHS which consists of 14 members from different specialty such as medicines, law, religious scholar, ethics, social work etc. It reviews and approves research proposals conducted by DUHS. Besides, DUHS offers this service to those institutes who have not their own IRB/ERB.

Academic Activities:

Undergraduate Students Research Activities: A research component was also incorporated in MBBS curriculum of DUHS five years ago. Each clinical group works under a faculty member of DUHS.

Fourth Year Research Book: The researches of undergraduate students are published annually under department of research. This book contains reports of all the clinical groups of DUHS.

Postgraduate Programs: Research Department is running a postgraduate level program, Master of Science in Biostatistics and Epidemiology (MSBE). MSBE program was started in October 2008. This is a two years program, comprises of four semesters with a research thesis work in second year of the program.

Summer Short Courses: Department has initiated three months summer short courses last year. The courses on Applied Biostatistics, Fundamental Epidemiology, Statistical softwares in health sciences and Research methodology are taught during June to August. The classes are held on weekends.

Training on Biostatistics and Research Methodology: Department also facilitates training on specific topics of biostatistics and research methodology. Several workshops have been conducted by the faculty of Research Department.

Unit for Ramadan Studies: Research Department also facilitates studies conducted on the topic of Ramadan and its effect on health. The unit provides assistance in literature and training on such studies. A conference of the same topic held on October 26, 2013.

Foreign Scholarship Program: Foreign Scholarship program is funded by Higher Education Commission (HEC) of Pakistan. Twenty scholars were sent for PhD program at overseas universities. Fifteen scholars enrolled in United Kingdom's universities and one each in Australia, Canada, Sweden, and Germany. These scholars were selected after through screening by Graduate Assessment Test (GAT), subject and protocol writing tests and then

following by two interviews based on candidate's research interest and specialty. Twelve scholars have successfully completed their PhD program and joined the DUHS back.

Research and Bio-statistical Consultation: The faculty of Research Department also provides research and bio-statistical consultation not only to faculty and students but also to pharmaceutical industries till now. The consultation is classified following three major parts

1. Statistical Consultation:

Department consults all kind of statistical works to different academic and research based organizations including pharmaceutical industries. These services include, but not limited to, sample size calculation, data entry, data analysis and formatted table & graph of the output of the analyses.

2. Writing Consultation:

Department also provides consultation in writing analysis and result sections of the research project/report. Besides, investigators who wants to write by themselves, department guides them how to interpret the statistical results.

3. Research Protocol Review Guides:

The faculty also assists research student and faculty about the processes of research work and writing including questionnaire formatting, structure of protocol, literature review and consent form etc.

4. Other Related Activities:

Research Loan Funding: DUHS provides a loan fund up to Rs.100,000 for the research projects of faculty and postgraduate students of DUHS. The administration work of the same is handled by Research Department. More than one hundred researches have been approved up till now.

Faculty Research Profile: The department has established research profiles of the faculty members on the DUHS website. It helps all DUHS faculty members to be in search engines like; Google and others. The advancement in the websites is being performed.

Research Posters Competition: Each year, research department celebrates Faculty and Student Research Days. On these days, researches of faculty and students are displayed through posters. The best three researches present their works orally are awarded. Administrative Work by Faculty, Secretarial Work by Staff.

Abstract Book: Every year Research Department compiles and publishes ‘Abstract Book’ which contains abstracts of research works published by DUHS faculty. The first book was published in 2010. Three issues have been published till now.

Registration of Research Projects: All the faculty and students of DUHS have to register their intended research project at the Research Department, so that the projects should not be duplicated by other faculty members and candidates.

❖ **2.2 Projects:**

2.2.1 Completed

Total number of Approved in 2013	83
Total number of Approved in 2014	50

2.2.2 Newly launched

Total number of Newly Launched in 2014	07
--	----

❖ **2.3 Publications:**

Total number of Abstracts in 2013	241+
Total number of Abstracts in 2014	115+

The details of the publications in 2013 and 2014 are attached as Annexure-A for Research Publications 2013-14 in Section 1.3 of Chapter 1.

❖ 2.4 Conferences, Seminars and Workshops:

Total number of Conferences is 04 in 2013-14, details are as follows:

Title of Conferences	Venue	Date(s) of Conference (mm.dd.yyyy)	
		Start Date	End date
12 th International Conference of Statistical Sciences	Dow University of Health Sciences	03.24.2014	03.26.2014
International Symposium on Ramadan and Health	Dow University of Health Sciences	10.25.2013	10.26.2013
1 st NATIONAL CONFERENCE ON PRIMARY DENTAL HEALTH	Dow International Dental College, Ojha Campus	10.26.2013	10.27.2013
2 nd National Conference on Research in Pharmacy	Dow College of Pharmacy	09.07.2013	09.07.2013

Workshops conducted by Research Department during 2013-2014, details are as follows:

Pre Research Day Workshops FOR DEVELOPING RESEARCH SKILLS

12th and 13th February, 2014

Worksh op	Topic	Facilitator	Timings
1	Grant writing (HEC/PMRC/DUHS)	Dr. Nazeer Khan	09 - 10:30
2	Data analysis through SPSS	Mr. Tayyab Raza Fraz	09 - 10:30
3	How to develop Questionnaire	Mr. Syed Arif Ali	09 - 10:30
4	Epidemiological Study Designs	Dr. Kashif Shafique	11 - 12:30
5	Data entry and analysis in Epidata	Mr. Syed Arif Ali	11 - 12:30
6	Calculating Sample Size for Research	Mr. Waqas Ahmed	11 - 12:30
7	Working with EndNote	Ms. Mehwish Hussain	1:30 – 3:00
8	Plagiarism	Mr. Abdur Rasheed	1:30 – 3:00
9	Creating research Poster	Mr. Tayyab Raza Fraz	1:30 – 3:00

Day/ Date & Venue: Wednesday 12th February (DMC Campus) and Thursday 13th February, (OJHA Campus), 2014

PDC, 4th Floor, DMC

Digital Lab, Library building, 3rd Floor, DMC, DUHS

Digital Lab, Institute of Nursing, 2rd Floor, Ojha, DUHS

Pre-conference workshops in

Workshops	Day/Date	Timings	Facilitator	Venue
SPSS	Saturday, 22 nd March 2014	9:00am--1:00 pm Break (11:00am --- 11:15am)	Masood Hussian Rao, Syed Anan Ali & Waqas Ahmed Farooqui	DIMC, Digital Lab
SPSS	Saturday, 22 nd March 2014	9:00am--1:00 pm Break (11:00am --- 11:15am)	Syed Arif Ali & Tayyab Raza Fraz	SPH, Digital Lab
Plagiarism and EndNote	Saturday, 22 nd March 2014	02:00pm--05:00 pm Break (03:45pm--- 04:00pm)	Dr. Sameer Qureshi & Khursheed Iqbal Ms. Mehwish Hussain	SPH, Digital Lab
SAS	Sunday, 23 rd March 2014	09:00am--12:00 noon Break (10:45am --- 11:10am)	Abdur Rasheed & Waqas Ahmed Farooqui	DIMC, Digital Lab
SAS	Sunday, 23 rd March 2014	02:00am--05:00 noon Break (03:45pm --- 04:00pm)	Abdur Rasheed & Waqas Ahmed Farooqui	SPH, Digital Lab
Advanced Multivariate Techniques	Sunday, 23 rd March 2014	02:00pm--05:00 pm Break (03:45pm--- 04:00pm)	Syed Adnan Ali & Tayyab Raza Fraz	SPH Room

12th International Conference on Statistical Sciences (ICSS)

Other than Research Department, Professional Development Center (PDC) also arranges workshops and seminars and list of these seminars is enclosed as Annexure A.

❖ **2.5 Research Journals:**

Department of Research, DUHS administers and publishes Journal of Dow University of Health Sciences (JDUHS) 3 times a year. This journal is approved by PMRC and indexed in IMEMR, Pak Medi Net and CABI. The journal is recognized by Higher Education Commission (HEC), Pakistan. From 2014, online submission and review process of the manuscripts has been started.

Issues of Year 2013:

Volume-7	Issue-01	January to April - 2013
Volume-7	Issue-02	May to August - 2013
Volume-7	Issue-03	September to December - 2013
Total Issues of Journals in the month of January to December 2013		03 Issues

Issues of Year 2014:

Volume-8	Issue -1	January to April – 2014
Volume-8	Issue -2	May to August – 2014
Volume-8	Issue -3	September to December - 2014
Total Issues of Journals in the month of January to December 2014		03 Issues

❖ **2.6 Research Collaboration:**

2.6.1. Indigenous

- Agha Khan University
- Hussain Ebrahim Jamal (HEJ) Research Institute of Chemistry
- University of Karachi

2.6.2. Foreign Linkages

1. School of Public Health with New York State University at Albany.
2. Dow University of Health Sciences with Staffordshire University

2.6.3. Funding Grants for R & D:

S.No	Principal Investigator (PI)	Co – PI	Project Name	Total Fund	Different Agencies	Starting and Ending Year	Status	Publication
1.	Dr. Syed H. Ali		Efficiency of Fluouoquinolones in treating HCV Genotype 3a Infection	12.3349 M	HEC	November 2013	Incomplete	
2	Dr Mushtaq Hussain	Dr. Nusrat Jabeen	Small Variations for Big Changes	1500 euros and 2000 US\$	European Society for Evolutionary Biology and US full bright	Feb 2014-Feb2015	Complete	Monograph entitled "Illustrative Essays On Molecular Evolution"
3	Dr. Syed Muhammad Zahid Azam	Abdullah bin Khalid, Shahid Majid, Tayyab Usmani, Sabhita Shabbir, Hafeezullah Shaikh	"Helicobacter pylori prevalence in dyspeptic adults of Pakistan & their validation using UBT"	PKR 1.948 Million	Abbott	January 2014-March 2015	Complete	

2.6.4. Operation of Office of Research, Innovation and Commercialization (ORIC)

With the establishment of Dow University of Health Sciences (DUHS), Directorate of Research incepted with the aim of growing quality research culture in the institute. Many sections were introduced to strengthen advancement of research culture in DUHS. These included registration and approval research proposals by Institutional Review Boards (IRB) and publishing Journal of Dow University of Health Sciences (JDUHS). Faculty research profile and research poster competition were the other stones for growing research culture in DUHS. Besides, introducing graded courses, degree program, and occasional trainings assisted to increase the knowledge of research based courses among faculty and students.

In 2011, under the directives of Higher Education Commission (HEC) of Pakistan, DUHS developed Office of Research, Innovation, and Commercialization (ORIC) while incorporate the latter two more sections. The ORIC then, adapted policies for augmenting activities related to innovation and commercialization in DUHS. The core elements of ORIC for faculty and students of DUHS are mentioned below:

Research Related Activities

- Journal of the DUHS (JDUHS)
- Institutional Review Board (IRB)
- Funding of Research Projects
- Undergraduate Research
- Registration of Research Projects
- Faculty Profile
- Abstract Book
- Faculty Research Day
- Student Research Day
- Unit of Ramadan Fasting
- Bio statistical consultation
- Research writing consultation

Academic Activities

- Master of Science in Biostatistics and Epidemiology (MSBE)
- PhD Program I
- Foreign Scholarships Program
- Teaching Biostatistics courses in many institutions/departments of DUHS
- Conducting Workshops
- Statistical consultations to undergraduate and postgraduate students & faculty member
- Summer Courses

Innovation

- Water Filter Plant
- Hand Sanitizer
- Artificial limbs
- Daily Life Activities Devices
- Dil and Health Project

Commercialization

- Artificial Limbs
- Daily Life Activities (ADL) Devices
- Dil and Health Project
- Riva Drinking Water Distribution
- Executive Clinical Setup at Dow OPD
- Bioavailability and bioequivalence (BA/BE) studies of drugs
- Dow Radiology Complex
- Sarwar Zuberi Liver Center
- Dow Vocational Technical and Training Center
- National Institute of Diabetes and Endocrinology
- Anti-Venom Vaccine

Chapter 3

Quality Assurance

❖ 3.1 Impact of Quality Assurance in the University:

Worldwide, universities rely on quality assurance procedures to achieve excellence in their academic programs, as well as to sustain it in future. In 2006, as per the directives of Higher Education Commission (HEC) Pakistan, the Quality Enhancement Cell (QEC) at Dow University of Health Sciences was established.

The founding Vice Chancellor, Prof Masood Hameed Khan, of Dow University of Health Sciences (DUHS), has always been supportive in initiating and implementing quality assurance measures proposed by QEC for the promotion of quality culture at each level at DUHS.

Dow University of Health Sciences has a well-developed quality assurance system that monitors the academic and clinical services. In this regard, number of measures for quality enhancement and assurance has introduced to have an effective quality assurance setup with standardized procedures and practices in health education, which includes:

- ❖ Preparation of Program Assessment Reports.
- ❖ ISO certification of all academic and support departments.
- ❖ Faculty assessment through student feedback.
- ❖ Student Facilitation system.

❖ 3.2 Quality Enhancement Cell:

The Quality Enhancement Cell (QEC) established at DUHS in 2006, as per the directives of HEC.

Since its establishment, QEC is continuously involved in

monitoring and measurement of Quality Management System (QMS) processes and the academic services throughout the DUHS.

Score of QEC-DUHS in 2013-14 by HEC

In 2013–14, the QEC-DUHS has scored above 91% and placed in W-category University all over Pakistan by HEC.

Responsibilities of QEC

The responsibilities of QEC include:

- Preparing and reviewing the program evaluation through Self-Assessment.
- Reviewing the Quality of teaching and learning in each subjected area through HEC prescribed feedback forms as per the guidelines given for each form in coordination with QMS coordinators, SAR Program Teams and QEC.
- Reviewing of Mentor System (student facilitation) in all academic departments of DUHS.
- Reviewing the Teachers Portfolio of faculty members of DUHS.
- Reviewing the quality standards and procedures used in quality assurance in terms of ISO certification, internal and surveillance quality audit.
- Ensuring that the University's QMS are designed to fit with the requirements of HEC.

Major Achievements of QEC-DUHS in 2013-14

The major achievement of QEC DUHS in 2013-14 includes:

- **Self-Assessment Report:**

QEC DUHS from its establishment until 2013-14, has completed 23 self-assessment reports of various undergraduate and postgraduate programs.

➤ **HEC prescribed feedback forms:**

QEC-DUHS has successfully transformed its manual system of feedback evaluation to online system in 2014. This conversion has smoothened the whole process of feedback at DUHS.

➤ **Mentor System:**

In 2013-14, QEC-DUHS has been involved in reviewing the mentor system at every teaching institute/ department of DUHS. This process has streamlined the students' issues effectively.

➤ **Teacher Portfolio:**

In 2013-14, QEC-DUHS has been involved in reviewing the teacher portfolio at every teaching institute/ department of DUHS.

➤ **Internal Quality Audit at DUHS:**

Completion of Internal Quality Audit in all ten institutes and support departments of DUHS with the help of Internal Auditors of DUHS, PIQC Consultants and QEC officials, to monitor the physical implementation of Quality Management System (QMS) of ISO in DUHS.

➤ **ISO Certification:**

In August 2013, DUHS declared ISO Certified with ISO 9001-2008, by Third (3rd) Party Evaluation of all academic and administrative departments of DUHS by the Audit Team of Vincotte International, Brussels.

➤ **Surveillance Audit by Third Party:**

After ISO 9001-2008 certification of DUHS, the third (3rd) Party Evaluators of Vincotte International, Brussels audited all academic and administrative departments of DUHS in September 2014 and re-certified DUHS for the provision of services of Quality Management System (QMS) and its processes.

❖ **3.3 Membership of Association/ Networks**

Following are the memberships of different association/ networks;

1. Member of Tallories Network since 2009.
2. Member of Learning Innovation Division, HEC Pakistan since 2005.
3. Global Health Learning Opportunities (GHLO) collaborative.
4. Prospective member of Asia Pacific Quality Network (APQN).

❖ **3.4 Accreditation of programmes from relevant councils.**

Following programs are accredited by their respective accreditation council/s:

1. MBBS Program at Dow Medical College (DMC) & Dow International Medical College (DIMC) - Accredited by Pakistan Medical & Dental Council (PM&DC).
2. Pharm D Program at Dow College of Pharmacy (DCOP) - Accredited by Pakistan Pharmacy Council (PPC).

3. Post RN Nursing Program, Fast Track Nursing Program & BS Generic Nursing Program at Institute of Nursing (ION) - Accredited by Pakistan Nursing Council (PNC).
4. BS Occupational Therapy program is approved by “World Federation of Occupational Therapy” (WFOT).
5. BS Prosthetics & Orthotics is approved by “Pakistan Institute of Prosthetics & Orthotics Sciences” (PIPOS).
6. Doctor of Physical Therapy (DPT) is approved by “Higher Education Commission Pakistan” (HEC)
7. M.S. in Physical Therapy is approved by “Higher Education Commission Pakistan” (HEC).
8. BBA & MBA Programs are in the process of accreditation.

Chapter 4

Faculty Development

Professional Development Center (PDC) DUHS

Professional Development Centre is the Centre for Human Resource Development of DUHS with state-of-the art equipment, models, electronic simulators, & manikins. Through needs based continuing education and hands-on workshops, it aims to provide technically sound and up-to-date workforce in the field of health sciences. These programs cater to the needs of several levels of health professionals such as Undergraduates, Postgraduates, Faculty members, Paramedics, Nurses, other health professionals, and public.

PDC has its head office at DMC with its branch at Dow International Medical College (DIMC), Ojha with similar facilities, equipment, and instructors. It additionally, has a dedicated Undergraduate Skills Lab.

All activities of PDC are organized and supervised by two Directors (Director Medical & Allied, Director Surgical & Allied).

PDC consists of five major divisions;

1. Continuing Medical Education (which deals with Seminar, lectures, symposia and conferences).
2. Continuing Professional Development (that deals with long duration & short duration training courses and hands-on workshops).
3. Undergraduate Skills Lab (which deals with the training of undergraduate students).

4. Medical Education Cell (which deals with the construction and formulation of undergraduate curriculum & Faculty training programs).
5. Miscellaneous programs (that include programs like visiting faculty, reproductive health and alumni affairs).

Since its inception in October, 2005 Professional Development Centre has conducted more than nine hundred and eighty two (982) national & international hands-on workshops: and more than eight hundred and sixty two (862) CME & Miscellaneous Programs in collaboration with National & International Organizations like PTC Foundation UK, American Heart Association, North Middlesex University Hospital, London, IMPACT Nepal, Amber Institute of California, INTER BURNS, INFORM, EMAME & EmONC, FALAH, US AID, UNFPA & WHO etc.

❖ 4.1 Faculty development programs (MS/Ph.D local + Foreign):

Foreign Scholarship program is funded by Higher Education Commission (HEC) of Pakistan. Twenty scholars were sent for PhD program at overseas universities. Fifteen scholars enrolled in United Kingdom's universities and one each in Australia, Canada, Sweden, and Germany. These scholars were selected after through screening by Graduate Assessment Test (GAT), subject and protocol writing tests and then following by two interviews based on candidate's research interest and specialty.

Twelve scholars have successfully completed their PhD program and joined the DUHS back. The University trying to strengthen its faculty under the following Faculty Development Program:

- A- HEC Overseas Ph.D. Scholarship under faculty Development Program
- B- MPhil (International Community Health) at University of Oslo, Norway
- C- Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.

❖ **4.2 Returned scholars :**

TOTAL CANDIDATES SENT = 20 (Five Phases)

Total Successful Candidates Returned = 12

Total Unsuccessful Candidates Returned = 1

❖ 4.3 Present Scholars :

The details are as follows

S.No	Name	Description
1	Dr. Asma Jabeen	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
2	Dr. Sajid Mehmood	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
3	Dr. Mubashir Aslam	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
4	Dr. Tehseen Fatima	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
5	Dr. S.M Ashraf Jahangir	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
6	Dr. Mona Nasir	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
7	Dr. Muhammad kashif Mughal	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
8	Dr. Muhamamd Munir	HEC Overseas Ph.D Scholarship Program under Faculty Development Program
9	Dr. Muhamamd Tahir rizwan Khan	Mphil (International Community Health) at University of Oslo, Norway
10	Prof. Shams Nadeem Alam	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.
11	Dr. Jahanzed	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.
12	Dr. Amjad Sattar	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.
13	Dr. Nuamn Al-Qamri	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.
14	Dr. Anila Rahim	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.
15	Dr. Hamid Mehmood	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.
16	Dr. Abdullah Bin Khalid	Training in Liver Transplant & Hepatobilliary Surgery Program at Istanbul.

❖ 4.4 Pre- Service and In-Service Professional Development Programs:

**Faculty Development Workshops conducted by Professional Development Center (PDC)
from July 01, 2013 to June 30, 2014**

S.N O	WORKSHOPS	DATE	CHIEF FACILITATOR / COURSE DIRECTOR	COORDINATOR	PAR TICI PAN TS
1	BCQs Writing (Enhancing Teaching Skills)	October 24, 2013	Dr. Shaheen Sharafat	Dr. Adina	26
2	Synopsis Writing (DIMC)	October 26, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. Jawaid Ahmed Dr. Zahid Ali Memon	14
3	“SYNOPSIS WRITING”	November 19 & 20, 2013	Prof. Nazeer Khan Mr. Masood Hussain Rao	Dr. Abdul Samad	34
4	Lecture / Class Tutorial Development Program (for DIMC Faculty)	November 19, 2013	Dr. Shaheen Sharafat	Dr. Afifa Tabassum	14
5	“Preparatory Course on TOACS” Department of Orthopaedic Dow University of Health Sciences	November 27, 2013	Prof. Ghulam Mehboob Prof. Hasan Dost Afridi Prof. Maratib Ali Dr. S. Mujahid Humail Dr. S. M. Tariq Dr. G. Mustafa K.K Dr. Dileep	Dr. Abdul Samad	17
6	BCQs Writing (Enhancing Teaching Skills)	November 30, 2013	Dr. Rukhsana Rubeen	Dr. Afifa Tabassum	6
7	MOODLE Modular Object Oriented Dynamic Learning Environment	December 7, 2013	Prof. Zeba Haque Dr. Masood Jawaid	Dr. Afzal Ali Ahmed Siddiqui	10
8	Manuscript Writing	December 31, 2013 & January 1, 2014	Dr. Mahjabeen Khan	Dr. Afzal Ali Ahmed	
9	Biostatistics Course (Basic & Advanced)	January 02nd to 16th, 2014	Prof. Nazli Hossain HOD Gynae Unit II, DUHS Dr. Lubna Pal, MBBS, MRCOG, MS,FACOG Associate Chair for Education Yale University School of Medicine Prof. Nazeer Khan, PhD Director, Dept. of Research, DUHS Dr. KashifShafique, PhD Vice Dean School of Public Health, DUHS	Dr. Shazia Jabbar Asst. Prof. Obs&Gynae, Unit II, DMC & CHK, DUHS	22
10	BCQs Writing Skills (For DUHS Faculty) DIMC Ojha Campus	February 6, 2014	Prof. Mirza Shafiq Baig Dr. M. Laiq uz	Dr. Afzal Ali Siddiqui	12

			Zaman Khan		
11	BCQ Workshop for IMT Faculty	February 22, 2014	Dr. Afifa Tabassum	Mr. Irfan	18
12	Breast Oncoplastic & Reconstruction Skill	February 27, 28, March 1, 2014	Dr. Rizwan Alvi Consultant Plastic surgeon, Liverpool, UK Dr. Jameel Shaikh Consultant Plastic & Hand Surgeon, UK Dr. Amir Sadri Senior Trainee in Plastic Surgery, UK Prof. Naheed Sultan	Prof. Maratib Ali Dr. Itaat Hussain Dr. Faisal Akhlaq Ali	13
13	MCQs Writing (IMT Instructors)	March 1, 2014	Dr. Afifa Tabassum	Mr. Irfan	
14	E-Learning Faculty Development Workshop on FLIPPING YOUR CLASSROOM: THE 21ST CENTURY APPROACH	March 4, 2014	Dr. Masood Jawaid Assistant Professor Surgery & In charge eLearning, DUHS Mr. Ahsan Lakhani	Dr. Afzal Ali Siddiqui	9
15	Preparatory Course for MRCPCB & Postgraduate Candidates of Paediatrics and Neonatology	March 19, 2014	Dr. Shabbir Ahmed Mallick MRCP (UAE), MRCPCB (UK) Consultant Paediatrician, Chairman Research & Ethics, King Khalid Hospital, Tabuk, KSA.	Dr. Naveed Akhtar	
16	MCQs Writing (IPM&R Instructors)	March 20, 2014	Dr. Afifa Tabassum	Mr. Irfan Ahmed	11
17	MCQs Writing (IPM&R Instructors)	March 21, 2014	Dr. Afifa Tabassum	Mr. Irfan Ahmed	11
18	MCQs Writing (For Neurology Faculty DIMC)	March 22, 2014	Dr. Afifa Tabassum	Dr. Adina Anwer	2
19	7th E-Learning Faculty Development Workshop on FLIPPING YOUR CLASSROOM: THE 21ST CENTURY APPROACH	March 25, 2014	Dr. Masood Jawaid Assistant Professor Surgery & In charge eLearning, DUHS Dr. Muhammad Zubair Mr. Ahsan Lakhani	Dr. A. Samad Khan	
20	MODIFIED TRAUMA LIFE SUPPORT	March 26, 2014	Dr. Furrukh Jabbar, MD General, Trauma & Minimally Invasive Surgery Appalachian Regional Health Care, Kentucky	Dr. Qasim Ahmed	25
21	Developing One Best Choice Questions MCQs Writing (For Neurology Faculty)	March 27, 2014	Dr. Afifa Tabassum	Mr. Irfan	6
22	Developing One Best Choice Questions MCQs Writing (For Biochemistry Faculty)	March 28, 2014	Dr. Afifa Tabassum	Mr. Irfan	8
23	Critiquing and Improving Outcome-Based Assessment	April 3, 2014	Prof. Shams Nadeem Alam Dr. Muhammad Zubair Dr. Masood Jawaid	Dr. Afifa Tabassum	6

24	Basic Life Support (BLS)	April 7, 2014	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. A. Samad Khan	13
25	Competency-based curriculum: How to integrate and measure core competencies?	April 09, 2104	Prof. Shams Nadeem Alam Dr. Muhammad Zubair Dr. Masood Jawaaid	Dr. Rukhsana Rubeen	8
26	Organizational Skills	April 11, 2014	Mr. Umair Ahmed Keynote Speaker, Trainer & Activist	Dr. Afifa Tabassum	15
27	"Flipping Your Classroom: The 21st Century Approach"	April 15, 2014	Dr. Masood Jawaaid	Dr. Afifa Tabassum	
28	BCQs Writing Skills (For IPM&R Faculty)	May 22, 2014	Dr. Afifa Tabassum	Mr. Irfan	9
29	"Development of MCQ (Single Best Type)" (FOR FACULTY OF PAEDIATRICS)	May 28, 2014	Prof. Aisha Mehnaz Prof. Fehmina Arif	Dr. Afifa Tabassum	10
30	MOCK TOACS	June 14, 2014	Prof. Maratib Ali	Dr. A. Samad	13

In-Service Professional Development Programs from July 01, 2013 to June 30, 2014

S.N O	WORKSHOPS	DATE	CHIEF FACILITATOR / COURSE DIRECTOR	COORDINATOR	PARTI CIPAN TS
1	Communication Skill (For DUHS Non Faculty Staff)	July 3, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. Abdul Samad	15
2	Communication Skill (For DUHS Non Faculty Staff)	July 9, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. Naveed Akhtar	15
3	Communication Skill (For DUHS Non Faculty Staff)	July 10, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. Naveed Akhtar	15
4	"OBSTETRICS REFRESHER WORKSHOP ON MATERNITY CARE" A Road Map to Achieve Millennium Development Goal 5 (Session 3)	September 17, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. Adina (PDC, DIMC)	30
5	Talk On NAB's Campaign on Awareness and Prevention against Corruption	September 26, 2013	Mobile Education Unit National Accountability Bureau (Sindh)	Dr. A. Samad Khan	28
6	Enhancing Teaching Skills (A Short CPD Course For Nasra School Teachers)	November 18 to 23, 2013	Prof. M. Saleem Ilyas Prof. Raza ur Rehman Dr. Fazeela Mughal Dr. Syeda Kausar Ali Dr. Aziz ur Rab Dr. Qasim Dr. Sobia Ms. Saba	Dr. Rukhsana Rubeen Dr. Afifa	16
7	Enhancing Teaching Skills (Teaching Methodology) (SBL) (For Faculty DIMC)	November 22, 2013	Prof. M. Masroor Prof. Shaheen Sharafat Prof. Zeba Haq	Dr. Afzal Dr. Adina	19

			Dr. M. Laiq uz Zaman		
8	Basic Life Support & First Aid Skills (For Shell Pakistan Limited)	November 27, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. Abdul Samad	17
9	Enhancing Teaching Skills (a short CPD Course for Nasra School Teachers)	December 09 - 14, 2013	Prof. Raza ur rehman Dr. Fazeela Dr. Aziz ur Rub Dr. Sobia Ali	Dr. Rukhsana Rubeen Dr. Afifa Tabassum	20
10	Basic Life Support (BLS) & First Aid Skills (Shell Petroleum Ltd.)	December 11, 2013	Dr. Qasim Ahmed (AHA Trained Instructor)	Dr. A. Samad	7
11	Basic Life Support & First Aid Skills (For Karachi International Container Terminal, Karachi Staff)	January 16, 2014	Dr. Mahjabeen Khan (Asst. Prof. SPH) Dr. Qasim Ahmed (Senior Instructor, SPH) MS. Hina Aziz (Pharmacist Manuscript, SPH)	Dr. A. Samad Khan	24
12	First Aid & Vital Signs Skills (For Merck Pharmaceuticals Group)	January 30, 2014	Dr. Qasim Ahmed Dr. A. Samad Khan	Dr. Naveed Akhtar	8
13	Preparatory Course for MRCPC & Postgraduate Candidates of Paediatrics and Neonatology	March 19, 2014	Dr. Shabbir Ahmed Mallick MRCPC (UAE), MRCPC (UK) Consultant Paediatrician, Chairman Research & Ethics, King Khalid Hospital, Tabuk, KSA.	Dr. Naveed Akhtar	
14	Dept. of Paeds & PDC, DUHS Organized an Orientation Workshop On "Integrated Management of Neonatal & Childhood Illness (IMNCI)"	March 31 to April 5, 2014	Prof. Aisha Mehnaz Prof. Fehmina Arif Prof. Ghulam Murtaza Dr. Muzammil Shabana Dr. Ammraha Jamal Dr. Amanullah Lail Dr. Imtiaz Mahar	Dr. Naveed Akhtar	24
15	DUHS In collaboration with SINDHI LANGUAGE AUTHORITY Organized a Sindhi Language Course (Certificate Course)	April 1, 2014	Guest of Honour Prof. Fahmida Hussain Prof. Masood Hameed Khan, VC, DUHS	Mr. Ali Raz Sher, DMC Mr. Ahmed Somroo, DIMC	25
16	Organizational Skills (for DUHS Faculty & Staff)	April 11, 2014	Mr. Umair Ahmed Keynote Speaker, Trainer & Activist	Dr. Afifa Tabassum	15
17	DUHS In collaboration with is organizing Arabic Language Course (Certificate Course)	April 15, 2014	Motharam Haris Ahmed Quran Academy, Karachi	Dr. Qasim Ahmed	25

❖ 4.5 Achievement of Foreign Faculty:

Workshop Conducted by Foreign Faculty from July 01, 2013 to June 30, 2014

S.N O	WORKSHOPS	DATE	CHIEF FACILITATOR / COURSE DIRECTOR	COORDINA TOR	PART ICIP ANTS
1	Burns Care Management (Under PPQP Programs)	February 17, 18 & 19, 2014	Dr. Rizwan Alvi Consultant Plastic Surgeon, Liverpool, UK Dr. Tuabin Rasheed Consultant Plastic & Breast Surgeon, UK Dr. Azra Ashraf Consultant Plastic & Breast Surgeon, USA Dr. Abid Rasheed Consultant Plastic & Burns Surgeon, UK Dr. Azhar Iqbal Consultant Plastic & Hand Surgeon, UK	Dr. Adnan Aziz Dr. Ehmer Al Ibran	16
2	ASD-Medical Evaluation, Comorbid:Treatmetn Options (PPQP)	December 23, 2013	Dr. Asma Jamil Sadiq, MD Director Division of Developmental & Behavioral Paediatrics Beth Israel, Medical Centre, New York, USA	Dr. Samina	
3	ASD-Current Trends & Research (PPQP)	December 26, 2013	Dr. Asma Jamil Sadiq, MD Director Division of Developmental & Behavioral Paediatrics Beth Israel, Medical Centre, New York, USA	Dr. A. Samad Khan	
4	ASD-Behavioral & Educational Interventions (PPQP)	December 30, 2013	Dr. Asma Jamil Sadiq, MD Director Division of Developmental & Behavioral Paediatrics Beth Israel, Medical Centre, New York, USA	Dr. A. Samad Khan	
5	Burns Care Management (Under PPQP Programs)	February 17, 18 & 19, 2014	Dr. Rizwan Alvi Consultant Plastic Surgeon, Liverpool, UK Dr. Tuabin Rasheed Consultant Plastic & Breast Surgeon, UK Dr. Azra Ashraf Consultant Plastic & Breast Surgeon, USA Dr. Abid Rasheed Consultant Plastic & Burns Surgeon, UK Dr. Azhar Iqbal Consultant Plastic & Hand Surgeon, UK	Dr. Adnan Aziz Dr. Ehmer Al Ibran	16
6	Fat Transfer Technique (Under PPQP Programs)	February 21 & 22, 2014	Dr. Rizwan Alvi Consultant Plastic Surgeon, Liverpool, UK Dr. Tuabin Rasheed Consultant Plastic & Breast Surgeon, UK Dr. Azra Ashraf Consultant Plastic & Breast Surgeon, USA Dr. Abid Rasheed Consultant Plastic & Burns Surgeon, UK Dr. Azhar Iqbal Consultant Plastic & Hand Surgeon, UK	Dr. A. Samad Khan	31

7	Three Day Certificate Course in "Hand Injury Management" (Under PPQP Programs)	February 24, 25 & 26, 2014	Dr. Rizwan Alvi Consultant Plastic surgeon, Liverpool, UK Dr. Jameel Shaikh Consultant Plastic & Hand Surgeon, UK Dr. Amir Sadri Senior Trainee in Plastic Surgery, UK	Prof. Maratib Ali Dr. Itaat Hussain Dr. Faisal Akhlaq Ali	30
8	Breast Oncoplastic & Reconstruction Skill (Under PPQP Programs)	February 27, 28, March 1, 2014	Dr. Rizwan Alvi Consultant Plastic surgeon, Liverpool, UK Dr. Jameel Shaikh Consultant Plastic & Hand Surgeon, UK Dr. Amir Sadri Senior Trainee in Plastic Surgery, UK	Prof. Maratib Ali Dr. Itaat Hussain Dr. Faisal Akhlaq Ali	13

CME Lectures Conducted by Foreign Faculty from July 01, 2013 to June 30, 2014

S.NO	WORKSHOPS	DATE	CHIEF FACILITATOR / COURSE DIRECTOR
1	Interactive Session On "Recent Advances in Schizophrenia"	Thursday, August 15, 2013 10:00 am - 12:00 noon	Dr. Mairaj A Khan, MD Attending Psychiatrist / Consulting Psychiatrist, Re Discover Mental Health Services Kansa, City Missouri, USA
2	CME LECTURE On "CEREBRAL PALSY & ROLE OF OBSTETRICIAN"	Thursday, August 22, 2013 09: 00 am to 11:00 am	Dr. Mubeen Fatima Rafay Assoc. Prof. & Paediatric Neurologist Dept. of Paediatrics & Child Health Children's Hospital, Winnipeg University of Manitoba, Manitoba, Canada
3	ASD-Diagnosis and Treatment Option (Session-II)	Tuesday, January 1, 2014	Dr. Asma Jamil Sadiq, MD Director Division of Developmental & Behavioral Paediatrics Beth Israel, Medical Centre, New York, USA
4	Guest Lecture on "Screening Tools for Developmental Paediatrics" Sharing Experience with Dr. Firdous Rizvi	Tuesday, January 1, 2014 08:30 am - 09:30 am Seminar Room, Paeds Unit I, CHK	Dr. Firdous Rizvi Paediatric Neurologist, New York, USA
5	Interactive Session On "First Generation or Second Generation Antipsychotics. New Treatments of Schizophrenia & its Complications"	Wednesday, January 01, 2014 09:30 am - 10:30 am Seminar Room, Dept. of Psychiatry, DMC & CHK, DUHS	Dr. Syed Asim Shah Associate Professor Menninger Dept. of Psychiatry & Behavioral Sciences Baylor College of Medicine, USA
6	Interactive Session On "DSM V...Update for Psychiatry, Neurology and Psychology"	Thursday, January 02, 2014 09:30 am - 10:30 am Seminar Room, Dept. of Psychiatry, DMC & CHK, DUHS	Dr. Syed Asim Shah Associate Professor Menninger Dept. of Psychiatry & Behavioral Sciences Baylor College of Medicine, USA
7	Symposium On Meeting the Challenges of Autism in Pakistan	Thursday, January 02, 2014 Arag Auditorium, DMC 09:00am- 01:30pm	Dr. Asma Jamil Sadiq MD, Director Division of Developmental and Behavioral pediatrics Beth Israel, Medical Center New York, USA

8	Common Behavioral Disorders	January 3, 2014	Dr. Asma Jamil Sadiq, MD Director Division of Developmental & Behavioral Paediatrics Beth Israel, Medical Centre, New York, USA
9	Neurology & Neurosurgery Meeting & a Guest Lecture on "Recent Advances in the Management of Headache"	Friday, January 03, 2014 08:30 am-11:00 am PDC Lecture Hall, PDC	Dr. Fayyaz Ahmed (Dowite'86) President Headache Society, UK Prof. M. Saleem Ilyas
10	Integrative Approach to Behavioral Disorders / Meeting with Parents	Saturday, January 04, 2014 Paeds/ IPM&R 09:00am- 01:30pm	Dr. Asma Jamil Sadiq MD, Director Division of Developmental and Behavioral pediatrics Beth Israel, Medical Center New York, USA
11	CME Lecture On "Recent Advances in Immunodiagnosics"	Monday, January 06, 2014 09:00 am to 02:00 pm Dept. of Pathology, 2nd Floor, DIMC, Ojha Campus.	Prof. Dr. Talat Mirza Prof. Dr. Rafiq Khanani Dr. M. Asif Qureshi Dr. Qasim Ansari, MD Immunopathologist, Cleveland Clinic, Ohio, USA
12	CME Lecture On "Recognition and Management of Common Psychiatric Illnesses in Medical Setting"	Thursday, January 16, 2014 11:00 am – 12:30 pm Seminar Room Psychiatry, Civil Hospital Karachi.	Dr. Nabila Farooq, MD Medical Director, Global Psychotherapy, Farmington, Michigan, USA Director, Patient Graduate Medical Education, Saint Mary Mercy Hospital, Livonia, Michigan, USA
13	CME Lecture On Cardiac Manifestations In Autoimmune/Connective Tissue Disorders	Friday, January 17, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
14	Symposium on ECGS	Saturday January 18, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
15	How to Approach a Patient With STEMI	Monday, January 20, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
16	Third Paediatric CME Lecture Series Organized by Dept. of Paediatrics 6th Lecture Topic: Retinopathy of Prematurity	Monday, January 20, 2014 09:00am to 10:30 am Paeds. Seminar Room Unit-I DMC/ CHK, DUHS	Dr. Omar Khalil Mian Director of Retinal Services, Albert Einstein College of Medicine, NY, USA
17	Role of Novel Anticoagulants	Tuesday, January 21, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
18	3D ECHO & Wall Motion Tracking	Wednesday, January 22, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
19	TEE / Stress ECHO	Thursday, January 23, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
20	Myocardial Perfussion Imaging	Friday, January 24, 2014 09:00 am to 12:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA

21	Use of Cardiac Drugs in Patients with Hepatic and Renal Disorders	Saturday, January 25, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
22	AHA Guidelines For Heart Failure	Monday, January 27, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
23	State of the Art Lecture On “Heart Failure – Diagnosis & Management”	Thursday, January 28, 2014 09:00 am to 02:00 pm Ojha Campus	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
24	Clinical Round Of ICU For Critically ill Patients (Finalizing the Report of Visit)	Wednesday, January 29, 2014 09:00 am to 02:00 pm Cardiology Department, CHK	Prof. Dr. S. Sultan Ahmed, MD, SQA Professor of Medicine New Jersey Medical School Rutgers University, USA
25	CME Lecture On “Introduction to Behavioral Neurology”	Thursday, January 30, 2014 10:00 am – 11:00 am Atra-ur-Rehman Lecture Hall, 2nd Floor, New Academic Block, DMC	Dr. Qurat ul Ain Khan Diplomate American Board of Psychiatry & Neurology, Diplomate American United Council of Neurology
26	Public Awareness Program & INAUGURATION OF CLUB FOOT CLINIC Dow University Hospital, DIMC	Saturday, February 1, 2014 09:00 am to 11:00 am. Lecture Hall, First Floor, OPD Block, Ojha Campus, DIMC	Visiting Guests: Prof. Jose A Morcuende Chief Director, Ponseti International Association Ms Tomeka J Petersen Program Manager Club Foot Disability
27	Program on Morphology of Blood Disorders (Peripheral Blood and Bone Marrow) Visit to Institute of Hematology	Monday , February 03, 2014 PDC / DIMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
28	Chemotherapy Basics & Infectious Problems Including Fever & Neutropenia Visit to Peds Dept. DIMC	Tuesday , February 04, 2014 PDC / DIMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
29	Coagulation & Transfusion Medicine - Clinical Application	Thursday , February 06, 2014 PDC / DIMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
30	Hemoncology - Leukemia & Lymphomas in Children	Friday, February 07, 2014 PDC / DIMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA Coordinators Dr Nusrat Nadeem / Dr Aurengzeb
31	Approach to child with Anemia Case discussions/questions	Saturday, February 08, 2014 PDC / DIMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
32	Palliative and End of Life Care with Pain Management / Complimentary Integrative Medicine	Monday, February 10, 2014 PDC / DIMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA

33	Visit to Department of Oncology, CHK & Lecture On "Palliative and End of Life Care with Pain Management"	Tuesday, February 11, 2014 Dept. of Oncology CHK (09:00 am to 11:00am) PDC DMC 11:00 am to 01:30 pm	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
34	Third Paediatric CME Lecture Series Organized by Dept. of Paediatrics 8th Lecture Topic: Approach to a Child with Anaemia	Wednesday, February 12, 2014 Paeds. Seminar Room Unit-I DMC/ CHK, DUHS 09:00 am to 01:30 pm	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
35	Interactive session "How to conduct Clinical Trials Post Bone Marrow Transplant Care"	Thursday, February 13, 2014 09:00 am to 01:00 pm PDC DMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
36	Lecture On Pediatric Brain Tumors and BMT in Leukodystrophy (Neurology and neurosurgery conference)	Friday, February 14, 2014 09:00 am to 12:00 pm PDC DMC	Dr. Shakila Perveen, MD, Hematologist, Pediatrics & Adult. Assoc. Prof. of Paediatric Mayo Clinic College of Medicine, USA
37	Third Paediatric CME Lecture Series Organized by Dept. of Paediatrics 9th Lecture Topic: Leukemia & Lymphomas in Children	Saturday, February 15, 2014 09:00am to 10:30 am Paeds. Seminar Room Unit-I DMC/ CHK, DUHS	Dr. Shakila Perveen, MD, Hematologist, Oncologist Pediatrics Mayo Clinic College of Medicine, USA
38	CME Lecture On "RECENT ADVANCES IN BREAST SURGERY"	Saturday, February 15, 2014 11:00 am – 01:00 pm OT Complex Auditorium	Dr. Pennlope Louise McManus Consultant Oncoplastic & breast Surgeon Hull & East Yorkshire NHS Trust Castle Hill Hospital, Nottingham, UK
39	Guest Lecture On "Paediatric Brain Tumors & BMT in Adreno-Leukodystrophy"	Friday, February 14, 2014 09:00 am – 12:00 pm Main Hall, PDC, 4th Floor, New Academic Block, DMC	Dr. Shakila Perveen, MD, Hematologist, Oncologist Pediatrics Mayo Clinic College of Medicine, USA
40	Talk on "Breast Cancer" & Grand Round	Tuesday February 18, 2014 09:00 am to 11:30 am PDC	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
41	CME Lecture On Approach to Anemia's	Wednesday February 19, 2014 09:00 am to 01:30 pm	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
42	Visit to KIRAN Hospital Interactive Session on Pain Management	Friday, February 21, 2014 09:00 am to 12:00 pm PDC/DIMC	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
43	CPC (Med 4) & Hem/ Onco Clinical Case Discussion	Saturday, February 22, 2014 Arag Auditorium, DMC	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
44	Flow Cytometric Analysis / Management of Lymphomas	Monday, February 24, 2014 09:00 am to 01:30 pm PDC/DIMC	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
45	Seminar On "Haematology"	Tuesday, February 25, 2014 Lecture Hall no 4, DIMC 09:30 am - 01:30 pm	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA

46	Interactive Session & Visit Dept. of Oncology, JPMC	Wednesday, February 26, 2014 09:30 am - 01:30 pm	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
47	Lecture On Flow Cytometric / Leukemia (For IMT Students)	Thursday, February 27, 2014 09:30 am - 01:30 pm PDC/DMC	Dr. Anisa Hassan, MD, Hematologist/ Oncologist Hospice & Palliative Care Medicine, USA
48	“Neurology MERIT net Grand Rounds for Pakistan” (Live Videoconferencing with APPNA MERIT net, USA) Organized by DUHS In Collaboration with APPNA MERIT (USA) Topic: “REM Behavior Disorder”	Monday, March 3, 2014 08: 30 am (Sharp) to 09:30 am Venues 1. (DMC) : Video Conference Room, 3rd Floor, Library Block, DMC 2. (DIMC): Seminar Room, 2nd Floor, Dow University Hospital, Ojha Campus	Dr. Micheal Howell, MD Board Certified in Neurology & Sleep Medicine Asst. Prof. of Neurology, University of Minnesota, USA
49	Guest Lecture On “ACUTE STROKE INTERVENTION”	Friday, March 7th, 2014. 09:00 am to 10:00 am. PDC Hall, 2nd Floor, DIMC	Dr. Basil Shah Neuro-Interventional Radiologist Tulane University, New Orleans, Louisiana, USA
50	CME Lecture On “Outline of Diagnosis & Management of Kidney Diseases”	Saturday, March 29, 2014 09:00 am to 10:30 am Seminar Room, Dept. of Paediatrics Unit I, DMC & CHK / DUHS	Dr. Mohammad Ilyas, MD, FAAP Asst. Prof. of Paeds Nephrology, Rheumatology/ University of Florida, Jacksonville, USA
51	Program Career Counseling Seminar For “SURGICAL TRAINING IN NORTH AMERICA”	Thursday, April 10 , 2014 10:00 am – 12:00 noon Main Hall, PDC, 4th Floor, New Academic Block, DMC	Dr. Farrukh Jabbar, MD, FACS General & Trauma Surgeon, Kentucky, USA
52	CME LECTURE On “OBESITY AND PREGNANCY”	Wednesday, May 21, 2014 12:00 noon – 01:00 pm PDC, DMC	Dr. Ghulam Quadir Khan MD, FACOG Baptist Hospital & Memorial Hospital Jacksonville, Florida, USA

Chapter 5

Access

❖ 5.1 Basic enrolment

DOW UNIVERSITY OF HEALTH SCIENCES

STATISTICS OF ADMITTED STUDENTS

DETAIL OF UNDERGRADUATE PROGRAMS 2013-2014

CAMPUS	PROGRAM	PLAN	Final year		4th year		3rd year		2nd year		1st year		Total	
			Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
DMC	MBBS		104	227	84	288	59	276	92	273	100	250	439	1314
SMC			68	262	94	278	61	279	0	0	0	0	223	819
DIMC			43	32	49	45	32	39	32	40	31	69	187	225
DIKIOHS	BDS		15	84	17	83	15	77	11	95	10	90	68	429
OJHA	DIDC (BDS)						3	10	9	35	8	42	20	87

DMC	DDC (BDS)						8	42	9	41	7	43	24	126
DIKIOHS	BS-DCP	DENTAL TECHNOLOGY			0	9	0	0	2	4	1	5	3	18
		DENTAL HYGIENIST			5	5	1	4	6	20	5	16	17	45
DCOP	PHARM-D				17	82	15	70	23	77	18	82	73	311
IMT	BSMT	CLINICAL LABORATORY SCIENCES			1	24	1	21	3	48	3	55	8	148
		RESPIRATORY & CRITICAL CARE TECHNOLOGY			4	18	3	17	5	24	3	13	15	72
		OPERATION THEATRE			2	13	0	9	5	27	5	14	12	63
		OPHTHALMOLOGY TECHNOLOGY			1	9	3	2		15	2	15	6	41
		PERFUSSION SCIENCES			31	3	2	5	1	8	2	4	36	20
IPMR	BSPMR	BS OCCUPATIONAL THERAPY			1	12	3	15	2	22	9	20	15	69

		BS PROSTHETICS AND ORTHETICS			5	9	3	2	3	8	2	5	13	24
	DPT						2	51	10	58	18	60	30	169
OJHA	DPT								8	61	15	63	23	124
IHM	BBA	(HEALTH CARE MANAGEMENT)			15	19	2	10	4	12	20	30	41	71
ION	BSNUR				12	14	12	15	12	13	4	18	40	60
	PRNBS				24	26	5	19	21	22	25	25	75	92
	BSCNFT				1	15	1	8					2	23
DIR	AAS								2	4	15	10	17	14
Affi NMC	Post RN						11	2					11	2
Affi NMC	BS NUR						7	0	15	0			22	0

Affi IHMT	BS NUR				18	7	19	6	17	8	3	22	57	43
Affi IHMT	Post RN										12	13	12	13
AFFI SMBB MC	MBBS				22	72	73	25	19	83	29	65	143	245
UNDER GRADUATE TOTAL												1632	4667	

6299

DOW UNIVERSITY OF HEALTH SCIENCES
STATISTICS OF ADMITTED STUDENTS

DETAIL OF POSTGRADUATE PROGRAMS 2013-2014									
CAMPUS	PROGRAM	3rd year 5th semester		2nd year 3rd semester		1st year 1st semester		Total	
		Male	Female	Male	Female	Male	Female	Male	Female
DIKIOHS	MDS			16	15	12	13	28	28
DMC	MHPE			9	18	0	0	9	18
	MSBE			2	5	6	1	8	
	MSBPHY							0	0
	MSc DS					20	33	20	33
COP	MPHIL					0	7	0	7
IPMR	MSAPT			7	16			7	16
IHM	MBA	21	32	29	32	5	21	34	53
	EMBA			15	7	9	23	24	30
ION	MSN			10	1	10	10	20	11
NIDE	MScDE			7	3	10	6	17	9
MPH	MPH			9	4	3	13	12	17
SPH	MSPH(HPM)			9	3	1	1	10	4
	MSPH(NS)			3	3	3	4	6	7
	MSPH(SBS)			6	8	0	0	6	8
	MSCR							0	0
MSTMTT				1	0	0	0	1	0
IBMS	MPHIL			7	13	2	18	9	31
				Already enrolled					
IBMS	Phd Programs			77	78			77	78
Diploma Programs									
OICD	DTCD					1	0	1	0

DMC	DMJ				7	0	7	0
	DCH				1	3	1	3
	DCARD				2	1	2	1
AFFI NICVD	DCARD						0	0
	DFM				1	4	1	4
	DLO				0	0	0	0
	DCCM				2	0	2	0
	DDERM				3	6	3	6
	DMRD				3	10	3	10
	DA				2	1	2	1
	SRC						0	0
	SPU						0	0
	CRCP				24	36	24	36
	DAM					2	0	2
	NVIR						0	0
	DPM				1	0	1	0
	DO				1	0	1	0
SPH	SPH(RM)					1	0	1
	SPH(HE)				1	1	1	1
	SPH(IB)				2	1	2	1
	SPH(PE)				2		2	0
	CHPE						0	0
IHM	PB						0	0
	PM						0	0
	DEPR						0	0
	HHSM						0	0
	SCM						0	0
	HCA						0	0
IBE	BE(AB)						0	0

	BE(SSHS)					3	1	3	1
	BE(FE)					5	3	5	3
	BE(RM)					10	3	10	3
OJHA	ULTSD					4	6	4	6
	NSI						1	0	1
	CDU					2	3	2	3
	ECARD					2		2	0
								367	439
806									

❖ **5.2 Equity**

In Dow University of Health Sciences, admissions are granted on open merit basis for all applicants either male or female.

❖ **5.3 Gender-Wise Detail**

The gender wise detail is already discussed in section 5.1

❖ **5.4 Employability**

The graduates of Dow University of Health Sciences are serving in almost all prominent health care institutions of Pakistan as well as at international level. Some major employers of DUHS graduates are following:

- Agha Khan University Hospital
- Liaquat National University Hospital
- Sindh Institute of Urology and Transplantation (SIUT)
- College of Physicians and Surgeons Pakistan
- Pharmaceutical Companies
- Private Hospitals
- Public & Private Sector Medical Colleges & Universities

5.5 Faculty-student ratio

In the year 2013-2014 the student faculty ratio as under:

- Total No. of Faculty: 615
- Total No. of Enrolled Students: 7105 (Undergraduate= 6299 & Postgraduate=806)
- Ratio: 1:12

Chapter 6

University Building

Economies

❖ **6.1 University- Industry Linkage**

With the effort of the Honorable Vice Chancellor, Prof. Dr. Masood Hameed Khan (T.I), of Dow University of Health Sciences, Karachi, builds up various linkages with national and international industries and still engaged in the process of enhancing strong linkages.

- Dow university of Health sciences have been developed university industry linkage with M/S Mactor international Ltd, and signed MOU in September 2013, for Establishment of Department of Sero-biology for anti-snake venom regarding Research and development as well as for production purpose, to serve humanity.
- The University enhanced its industry linkage by signing MOU with the international organization, DICE Foundation, it will act as a pragmatic platform for health related innovation & for collaboration among academia, industry, government, entrepreneurs and expatriate community on all matters pertaining to the growth of health sector in Pakistan.

❖ **6.2 New initiatives**

- **DOW CLUB CARD**

Dow Club Card has been introduced as an innovative way for source of comfort to providers as well as users of health services. Dow Club Card had been launched at Dow University of Health Sciences since two years to provide maximum possible facilities to the students, faculty members, and alumni of DUHS. Multiple alliances were taken on board and variable discounts can be availed at various places including restaurants, hotels, saloons and number of other outlets. The donors of Dow Endowment Fund who join hands with Dow University to provide enjoyable lifestyle for health care services to under-privileged people of the community, free of charge or at meager cost. Member will get double satisfaction by holding Dow Club Card, one for caring others and the other by saving on discounts at multiple places along-with enhanced life style. The Dow Club Card has to be carried by the member to avail variety of massive benefits at various places.

The Club Card holders can also inspire others to become club members to help under-privileged people as well as enjoy discounts on their own.

- **PROJECT OF RIVA PREMIUM DRINKING WATER PLANT**

The Dow University of Health Sciences established state-of-art Reverse Osmosis Double Pass Premium Drinking Water Plant for the provision of Safe Drinking Water by name of 'RIVA' packed in 19 liters bottles. The premium drinking water plant aim for the benefit of patients and the general public, 1000 Gallons/day are produced to be sealed in 19 liter bottles. Riva drinking water is purified through 11 steps of Hydration, starting from chlorination and ending with UV sterilization. The manufacturing facilities are of international standards.

In line with the excellent image of Dow University of Health Sciences a Quality Healthcare Organization want to establish RIVA water as Premium Drinking Water which could be recognized as the Purest, Safest, and Healthiest water in Pakistan, with surety that our RIVA water process of Sourcing Processing Packaging, Distribution and Customer Satisfaction is truly in line with established international standards. The University has a world class GMP compliant manufacturing facility having State of Art machinery which ensure that our water produced is of the highest quality standard and also approved by PSQCA Standards. This manufacturing facilities is of international standards and can prepare premium quality drinking water up to one thousand gallon per day, the water is filled/sealed in a 19litre bottles (FD approved poly carbonate) which can be mounted on ceramic and electric dispensers. Our quality in line with PSQCA (Pakistan Standards and Quality Control Authority) certification.

University started its production of 19 liter Riva water bottle in the month of December 2014, and after satisfactory QC report University started its initial supplies to few departments for testing purposes.

From January 2015 onwards University producing around 1500 bottles of Riva premium drinking water and is being consumed by approximately 112 departments/ out reached labs/Offices of 4 campuses of Dow University and still creating new strategies for commercialization of such innovations.

Future perspective is to get Trademark Registration by the Government of Pakistan, the trade mark registry, Karachi.

In order to fitful its CRS responsibility, Dow will supply its water to natural calamity hit areas, and those areas deprived of drinking water.

To produce High Quality Premium Drinking water by using state of art water treatment technologies and supplying at competitive prices to general masses while keeping professionalism dedication and excellence to meet the international standards.

- **ANTI SNAKE VENOM**

Establishment of Department of Sero-biology was approved by the Sindh Government in the 2011. The Sero-biology lab started its work on pre-clinical animal studies in 2011 and after successfully completion of lab scale studies on anti-snake venom the research data of Anti snake venom was submitted to Drug Regulatory Agency of Pakistan for evaluation and approval to conduct human clinical trials and pilot production subsequently anti snake venom production required GMP facility for large scale and pilot scale production

Currently 60 liters of hyper immunized Horse sera have been stored for pilot production purpose. More over Dow University of Health sciences is also trying to collaborate with various biological institutes of china for technology transfer and technology incubation center.

- **ARTIFICIAL LIMB CENTRE**

Department of Prosthetics & Orthotics successfully delivered prosthetics & orthotics appliances and follow-up 1580 patients in the year 2014

Currently facilitates Jinnah Post Graduate Medical Centre, Department of Orthopedics Club Foot Clinic by providing 300 Dennis brown splints for their congenital equi-varus patients, and orthopedic association of Pakistan by providing Hands on training to Post-graduate fellows.

- **AQUEOUS GEL HAND SANITIZER**

Formulation of water based gel hand sanitizer for commercial use at Dow University of Health sciences, in collaboration with Institute of Biological Biochemical and Pharmaceutical Sciences (IBBPS) for better application of the subject. The major goal of this project is to serve society a natural anti-bacterial product.

❖ 6.3 Technology Incubation Centre

The Dow University of Health Sciences, Karachi, is still in process of the development of Technology Incubation Centre. As far as current innovations are concerned, there are various technologies, infrastructure etc. are used which may vary product-to-product.

❖ 6.4 Patents/ Trademark

Dow University of Health Sciences is engaged in process of trademark registration by University Legal Consultant. There are various applications are under process for the registration.

As desired, please find below status of your trademark applications, which we are handling:

S. #	App. #	Class	Trademark	F. Date	Status
1	308949	44	DOW	21/10/14	REGISTERED
2	344473	5	Shaffaf (Logo)	05/08/13	Registration Process Hold by DUHC
3	344474	32	Riva (Label mark)	05/08/13	ADVERTISED
4	368710	41	DR ISHRAT UL EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)	21/08/14	IN PROCESS
5	368711	44	DR ISHRAT UL EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)	21/08/14	IN PROCESS
6	368712	42	DR ISHRAT UL EBAD KHAN INSTITUTE OF ORAL HEALTH SCIENCES (DIKIOHS)	21/08/14	IN PROCESS
7	-	35	DOW UNIVERSITY HEALTH CARE(Logo)	18/11/14	New File
8	-	32	DOW UNIVERSITY HEALTH CARE(Logo)	18/11/14	New File

❖ 6.5 Internship and Placement Office:

In the recent years, there is an increasing interest of the final year students of Medicine for doing ELECTIVES in different medical schools/hospitals in the United States/UK. The Quality Enhancement Cell, QEC-DUHS is also responsible for developing collaboration and linkages with other universities and colleges around the globe in different areas of interest. We have developed a Memorandum of Agreement with some of the prestigious Medical Schools for clinical electives namely:

- University of Illinois-Chicago
- University of Massachusetts,
- University of Louisville

- University of Malaysia
- University of Maryland.
- University of Vanderbilt.

Moreover, DUHS has also attained the membership of American Association of Medical Colleges, AAMC's GHLO (Global Health Learning Opportunities) collaborative, in addition to expand student mobility opportunities through this global network.

❖ **6.6 Student Counseling and Career Guidance**

Professional Development Centre (PDC) officials provide counseling services to students in DMC and Ojha Campuses regarding their future ambitions. In addition to that, "Student Facilitation Centre" has also been established under the supervision of a Professor to guide students about their academic problems and other issues regarding support departments affairs.

Chapter 7

Strengthening Physical Infrastructure

PLANNING AND DEVELOPMENT DEPARTMENT

The Department of Planning and Development of Dow University planned renovations and refurbishments of old Dow Medical College, Sindh Medical College and a number of old buildings at Ojha campus. All plans have been executed amicably.

It also planned & constructed various new buildings, which have been designed and constructed by reputable and renowned architects and construction companies.

❖ 7.1 Development Projects (Laboratories, Libraries, etc.)

- Establishment of National Institute of Liver and Gastro Intestinal Diseases (NILGID).
- Establishment of Postgraduate Medical Sciences Research Centre.
- Establishment of Faculties of Oral Health Sciences and Medical Technology.
- Up-gradation and Modernization of Existing Laboratories and Libraries.
- Renovation & Rehabilitation of Existing Residences and Construction of Masjids.
- Renovation, Rehabilitation and Addition in T.B. Hospital (Institute of Chest Diseases).
- Strengthening of Institute of Physical Medicine and Rehabilitation of Disabled.
- Establishment of Department of Serobiology and Providing Power Generation by Gas along with Heat Recovery System.
- Establishment of Trauma Centre, BSL-3 Lab. and Provision of Support Services at Institute of Chest Diseases.
- Construction of Boys Hostel.
- Addition of 4th Floor in Dow University Hospital.

❖ 7.2 Research Equipment

- Establishment of BSL-III Laboratory.
- Establishment of Serobiological Laboratory.

- Establishment of new Endoscope Suite at NILGID.
- Establishment of 9 ORs and 40 Bedded ICU.
- Strengthen the Radiology Department.
- Strengthen the Diagnostic Research & Reference Laboratory.

❖ **7.3 Construction Projects**

COMPLETED PROJECTS

- National Institute of Liver and Gastro Intestinal Diseases (NILGID).
- Establishment of Faculties of Oral Health Sciences and Medical Technology.
- Renovation work for Up-gradation and Modernization of Existing Laboratories.
- Central Library at Ojha Campus.
- Renovation & Rehabilitation of Existing Residences and Construction of Masjids.
- Addition of 4th Floor in Dow University Hospital.

ONGOING PROJECTS

- Postgraduate Medical Sciences Research Centre.
- Renovation, Rehabilitation and Addition in T.B. Hospital (Institute of Chest Diseases).
- Building for Strengthening of Institute of Physical Medicine and Rehabilitation of Disabled.
- Establishment of Department of Serobiology and Providing Power Generation by Gas along with Heat Recovery System.
- Establishment of Trauma Centre, BSL-3 Lab. and Provision of Support Services at Institute of Chest Diseases.
- Construction of Boys Hostel.

Some other renovated and refurbished projects are mentioned below:

- Renovations and restoration of heritage building to lodge Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS).
- Fixation of 125 dental chairs and other required equipments at Dr. Ishrat-ul-Ebad Khan Institute of Oral Health Sciences (DIKIOHS) along with furnishing of lecture halls, laboratories, libraries and administrative rooms.
- Old auditorium converted in Dental Hospital.
- Renovations and furnishing of Lecture halls at Dow Medical College and Sindh Medical College along with audiovisual aids and fixed multimedia.
- Renovations and furnishing of all Laboratories of basic sciences at Dow Medical College and Sindh Medical College and provision of all required modern equipments.
- Renovations of Auditoriums at Sindh Medical College.
- Renovations of Canteens and Common Rooms for students at Dow Medical College and Sindh Medical College. (boys and girls separately).
- Renovations of old administrative blocks at Dow and Sindh Medical Colleges.
- Renovations at girls hostels of Dow Medical and Sindh Medical Colleges.
- Different departments of Dow University have been equipped with new furniture and some old ones repaired.
- New bigger lift has been installed at Dow Medical College, whereas its old lift has been installed at the Institute of Physical Medicine & Rehabilitation (IPM&R), located at Old DMC boys hostel.
- Air conditioners are also installed in the lecture halls, labs and different departments at DMC, SMC, DIMC and other institutes of DUHS.
- Intercom system has also been installed in various buildings at all campuses of Dow University.
- Fixation and supply of instruments / equipments in different clinical departments of civil hospital, Karachi for seminar rooms to have proper teaching atmosphere for undergraduate & postgraduate students.
- Renovation of old boys hostel blocks at Dow Medical College and their furnishing besides being equipped to lodge Institute of Medical Technology (IMT), Institute of Physical Medicine & Rehabilitation (IPM&R), Institute of Health Management (IHM) and Dow University Artificial Limb (DUAL) Centre.

- Renovation of shah lateef campus of DUHS to lodge Institute of Health Management and Dow Lab Collection Point, near JPMC & NICVD.
- Up gradation & Modernization of existing laboratories & libraries.
- Three storied Boys hostel for DIMC at Ojha.
- Establishment of Dow Dental College (DDC).
- Establishment of Dr. Ishrat-ul-Ebad Khan Institute of Blood Diseases at Ojha Campus (DIKIBD).
- Construction of a four storied new state of art building to having **Lab Automation System** on the ground floor.
- Dow Diagnostic complex at LEJ campuses, having CT & MRI on stadium road.
- Four storied Operation Theatre complex and 100 bedded ICU, building near completion.
- New construction for Serobiological lab is in process.

Chapter 8

Strengthening Technological Infrastructure

❖ **8.1 Digital Library**

Digital Library program was launched by HEC to assist researchers and tutors at public sector universities. Digital Libraries developed by Dow University of Health Sciences in there different campuses and institutes provide access to international scholarly literature based on online delivery, peer-reviewed journals, databases, articles and e-books across wide range of disciplines. Through HEC's digital library which is accessible from all digital libraries established in DUHS, users can access more than 75,000 electronic contents. Following are the list of digital libraries at different campuses of Dow University of Health Sciences along with the number of available systems.

- Main Digital Library (Ojha Campus) – 201 Systems
- Digital Library (Institute of Nursing) – 40 Systems
- Digital Library (Institute of Health Management) – 25 Systems
- Digital Library (Dow College of Pharmacy) – 10 Systems
- Digital Library (Institute of Medical Technology) – 26 Systems

TASK ACCOMPLISHED DURING 2013-14

▪ **Implementation of Microsoft Windows 7**

Implementation of Microsoft Windows 7 Operating System in all Digital Libraries of DUHS in order to meet latest requirements. License for Windows 7 Professional edition was provided by Higher Education Commission of Pakistan.

▪ **Implementation of Microsoft Office 2010**

Implementation of Microsoft Office 2010 in all Digital Libraries of DUHS in order to gain new office features. The legal licenses for Microsoft Office 2010 was also provided by Higher Education Commission of Pakistan.

▪ **Implementation of SPSS**

DUHS has purchased license for 25 clients and 1 server in the year 2014. SPSS is a Statistic base Software. In this software we required some features which are added in version 21. In order to achieve mentioned features:

- Two datasets or files can be compared in SPSS Statistics
- Password protection for data and output files in SPSS Statistics

- Improvements to pivot tables in SPSS Statistics
- Improved storage space by compressing the data file in SPSS Statistics
- Integration of the Java programming language through the SPSS Statistics Programmability Extension
- Improved security enables SPSS Server to run as non-root on Unix/Linux
- Improved and faster file merging in SPSS Statistics
- Export output to Excel 2007/2010 (.xlsx)

▪ **Up-gradation of RAM's**

In order to meet the necessities of latest software, plus to conduct online training and examination IT department has up-graded the memory and storage of required system in digital library.

- RAM: Upgraded from 1 GB to 2GB
- Hard Disk: Upgraded from 40 GB to 80 GB

▪ **Implementation of Moodle software for workshop and exams**

Since year 2013-14 IT department have started conducting exams through Moodle which is an online open source system. Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environments and through Moodle you are easily conduct online Exams. We can easily conduct 40-50 students' online exams at a time in Digital Library.

▪ **Access for New Medical Journal in year 2013-14**

Although we already have open access MBBS Journals and E-Books are available for students in Digital Library which they can access through www.digitallibrary.edu.pk - In year 2013-14 we have also added 10 new Journals for Dental Students in the Digital Library.

❖ **8.2 PERN (Pakistan Education and Research Network)**

- PERN was initially launched in year 2002 as a part of IT action plan providing Internet facility and interconnectivity between universities for data bank integration, research collaboration and upgrade learning and teaching skills.

- Dow University of Health Sciences receive a total of 32 Mbps in DMC and Ojha Campus. Said bandwidth is further distributed to other campuses including Institute of Health Management, Institute of Medical Technology through 10 Mbps inter-campus connectivity provided by Connect Communications Pakistan.
- Dow Medical College Campus – 16 Mbps
- Ojha Campus – 16 Mbps

Task accomplished during 2013-14

- Increase in Bandwidth received from PERN
- IT department of Dow University of Health Sciences has previously receiving 8 Mbps dedicated bandwidth at Ojha Campus to support around 400 users, as the number of users increased in year 2013-14 from 400 to over 900, we requested HEC to double our bandwidth at Ojha Campus. We are now providing seamless internet connectivity to more than 900 users in Ojha Campus through 16 Mbps connection.
- Installation of redundant link from PERN
- In order to ensure seamless and continuous inter-department connectivity & internet provision IT department requested to deploy redundant fiber link of PERN from another routing channel. This redundant link was established in 2013-14 which assist in reducing the downtime of connectivity.
- Installation backup
- Backup link is mandatory to ensure continuous service operations, IT department deployed a DSL connection which is provided by PTCL, this link support 4 Mbps of data.

❖ 8.3 Video Conferencing

- Video conferencing facility is provided by the information technology in all campuses. Clary Icon (PC based web conferencing) setup is installed in Ojha Campus for advance conferencing. Tandberg 990 MXP (Multiple unit supporting up to 4 sites) is deployed in DMC campus. Polygon PVX software is utilized in Ojha Campus for seamless video conferencing and web conferencing experience; which works on H-323 protocol. Cisco

Webex is deployed in DMC campus for conferencing – DUHS currently own license of Cisco Webex for 25 simultaneous nodes.

- APNA training, CTU (CRCP and CRC) classes, HEC workshops, and official meeting are usually conducted through video conferencing facility of DUHS.

Task accomplished during 2013-14

In video conferencing DUHS made a significant improvement during 2013 and 2014. There have been started a number of programs on video conferencing.

- **APPNA Merit:**

The online lecture program APPNA merit from USA has maximum participants. DUHS has included 0.5 credit hours for this program on account of this 80% participants have been increased as we arranged another room for accommodate all attendees so simultaneously both room's participants could attend the lectures at the same time.

- **CRCP:**

DUHS also has started CRCP online course on video conferencing on every Sunday from 8:30 to 12:00. Six batches have been passed out and 7th is going on.

- **QEC Sessions**

QEC-DUHS has monthly video conferencing sessions on Quality Control.

- **Internal and external communication:**

DUHS used video conferencing facility for its internal and external communications like meetings, online workshops, lectures from campuses etc.

- **Other Conferences:**

DUHS also used videoconferencing facility to provide lectures in the field of medical, IT and other awareness programs arranged by HEC or other individuals like Dr. Usmani from Saudi Arabia in the field of QEC etc.

To improve the number of participants DUHS has used different techniques like distribution of Notification papers on all departments, pasting posters on Notice boards, displaying on DUHS Websites etc.

❖ **8.4 Campus Management Solution:**

Dow University has been aiming for provision of facilities to students, faculty, and staff with immediate access to real-time information which connects that information to specific action. Campus Management System CMS is logically divided into several modules, each of which maps to a university function/department. DUHS worked closely with the HEC (Higher Education Commission) and “Campus Management Solution” project was initiated at Dow University first time in any university of Pakistan. Higher Education Commission selected six public sector universities for the implementation of Oracle People Soft Campus Solutions, Dow University did the pilot model, successfully for the initial period of two years.

The Campus Management software is an integrated solution which takes care of the various activities of an educational institution like institution management, student management, administrative functions, etc. The solution is available as a basic integrated application upgradeable to an Intranet / Internet system.

Oracle Corporation has a customized ERP Solution for academic institutions i.e. Campus Management or Student Information System. The solution is a combination of software and hardware. It helps to manage the business processes of an academic institute in an efficient and professional manner.

The integration between various processes and departments i.e. admissions (electronic and manual), enrolment, examination, fees etc. helps in automating the manual and traditional methods of functioning of a campus.

SALIENT FEATURES

- User Interface.
- Easy to Customize.
- Hot Access keys.
- Multi-level Password protection.
- Full featured backup and restoration.
- Unlimited number of users.

- Customized reports.

GAINS and BENEFITS

- The web based features enables the faculty, students as well as the management to interact.
- Student's services is enhanced by allocating user name and password whereby they can view their mark lists, attendance, syllabus, important notes and other informations related to their course on the browser.
- The application generates various reports useful to the management, to the faculty and to the end user separately, for each module.
- The security levels can be administered at three levels.
- The management has the option to set user's right of the end user, depending on the role and job responsibility.
- CMS make easier to prepare and generate reports from different required aspects.

CMS MODULES

- **Students Admission:** This module is capable of automating the admission process of the university, it generates merit lists according to the admission criteria and score of the admission test results.
- **Records and Enrolment:** This Module is can Enroll different Batches Individually, with Term Activation and individual Process.
- **Student's Financial Matters:** Student Financial module keeps the record of each student's financials including the tuition fees, other Charges and Payments made.
- **Curriculum Management:** This Module is a set of business processes which can maintain Course Catalog, maintain Schedule of Classes, and define Repeat Checking Rules, Maintain Course Requisites, permissions, term activations and other term related activities.
- **Campus Community:** It is the foundation of PeopleSoft Campus Solutions package which provides the 3C's concept i.e. Communications, Checklists and Comments. It enables to maintain People Biographical Data, Service Indicators and Organizations data.
- **Student's Grade Book:** The Students' Grade book helps to monitor class assignments and grades acquired.
- **Campus Self Service:**

- **Student Self-Service:** They can access of Biographical Information, Fee Vouchers and Examination Forms, with their own password.
- **ENTERPRISE PORTAL** It is a world class portal solution with many robust content and collaborative features, which is in use at DUHS also.

❖ **8.5 Web Portal**

Web portal of Dow University of Health Sciences assist in timely update of news, events, information on the official website of the university which is managed by IT department. It provides all the information regarding admissions, curriculum, examination and events planned in the university. Following facility are provided through web portal

- Accessibility to DUHS official email
- Faculty profile
- Microsoft for all
- Convocation data
- Professional development center data
- Dow Club Card
- Alumni Data
- Dow Executive Clinic
- Tenders and Admissions
- DUHS CME (Continuous Medical Education)
- JDUHS (Journal of Dow University of Health Sciences)
- Curriculum and course outline of MBBS

Task accomplished during 2013-14

▪ **Launched e-CME website**

DUHS has launched its web-based Continuing Medical Education Program named the "e-CME Program for the Family Physicians". An e-CME Programme could be a current, evidence-based and made available at the GP's home and workplace with an accessibility 24/7 became a priority in FP's education and training as most appropriate.

▪ **Develop & Launch Learning Management System (LMS) for E-CME**

DUHS launched the learning management system (LMS) for the e-CME program. Keeping in mind a "busy General Physician" and without interfering his business and social times a

web-based CME was decided because a web-based program is easily accessible at freewill, from one's home or workplace using a pc or smartphone at personal convenient time.

- **Enhancement in QEC survey form system**

The different survey forms of the HEC regarding the faculty and student surveys are integrated in the Quality Enhancement Cell website, on the basis of which different reports are created which helps in monitoring the progress of the students and the faculty.

- **Integrate portal for elms on DUHS website**

The elms portal that contains the various software's of the Microsoft is integrated with the DUHS website. The portal enables you to directly download the Microsoft software from the portal. You can download and activate it for your personal use. The portal is available to Dow University of Health Sciences University as part of Academic Alliance with Microsoft through HEC.

- **DUHS electronic journal (JDUHS) in testing phase**

Journal of Dow University of Health Sciences (JDUHS) publishes high quality original papers covering a wide variety of topics. For ease of access, the editor has selected a range of key papers from each of the major fields covered by the journal and placed them in the subject collections. This "Journal of Dow University of Health Sciences (JDUHS)" is approved by PMDC & HEC and is indexed in IMEMR, PakMediNet and CABI. Three issues per year are published routinely. Now articles can also be submitted online.

- **Launch Office of Research, Innovation and Commercialization, DUHS (ORIC) website**

Under the directives of Higher Education Commission (HEC) of Pakistan, DUHS developed Office of Research, Innovation and Commercialization (ORIC) while incorporate then latter two more sections. The ORIC then, adapted policies for augmenting activities related to innovation and commercialization in DUHS.

- **Launch Masters in Health Profession Education (MHPE) website**

DUHS has launched the MHPE website for its Masters in Health Professions Education Program. DUHS initiated the Masters in Health Professions Education Program in 2009 from the Karachi campus. It was felt that the DUHS program is not appropriately catering to the applicants in the North of Pakistan. With this in mind, in 2013, for the first time DUHS started offering a parallel program of MHPE in Islamabad with its international and local faculty.

- **Enhancement and up gradation of Professional Development Centre (PDC) website.**
As per the growing needs and demand the different alterations, enhancement and up gradation is done in Development Centre (PDC) website as per the directions of the departmental head.
- **Web Presence for DOW EXECUTIVE CLINIC (DEC)**
DUHS launched website for the treatment of their Executives patients. Executive Health Program offers busy executives an efficient, cost-effective way to manage their health and reduce medical absences. The website helps and guides thousands of executives from companies throughout the city participate in the Executive Health Program, available at Executive Clinic Dow Radiology Complex.
- **Web Presence for INSTITUTE OF HEALTH MANAGEMENT (IHM)**
DUHS launched the website for its Institute of Health Management (IHM). The IHM website helps and guides the health management students; the website contains the admission procedure, admission requirement, Schedule of Activities, Admission Policy of the IHM.
- **Web Presence for Dow Club Card**
DUHS launched the website for Dow Club Card. The website facilitates the students, faculty members, and alumni of the DUHS about the services, promotions and the discount offered by the different national and multinational companies through Dow Club Card.

❖ 8.6 Online Admission System

Online admission assist in reducing workload, avoid data entry mistakes and of course in keeping up to date record by electronic means. DUHS announces admissions in different programs; online admissions help in form filling over the website, provision of electronic copy of prospectus along with related information.

Detail of Online Admission System

- Operating System: Linux
- Webserver: Apache/PHP
- Database: MySQL
- VPS based hosting is acquired from Hostmonster.com

Task accomplished during 2013-14

- **Redesigning of Application Form**

In order to meet the current requirements of admission department; easy sorting and filtering of data & information, IT department has made significant changes in the designing of application form.

- **Improvement in the process of image upload**

Scanned copies of degree, mark sheet and other documents were uploaded through online admission system. In year 2013-14 the uploading and archiving process were improved for better results.

- **Up-gradation of development code to the latest framework and platform**

To cope the admission needs of Dow University of Health Sciences, the platform of developed code has been enhanced to latest framework. Upgraded technology allow us to make most of the online admission system.

Chapter 9

University Building Communities

❖ **9.1 University-Community Interaction**

Description of Dow University Hospital

Dow University Hospital located at Ojha campus, Suparco Road, Karachi. It is a tertiary care teaching University Hospital attached to Dow International medical college (DIMC). This hospital also serves as a teaching unit for Institute of Nursing & Clinical Pharmacology rotation for students of college of pharmacy, housed adjacent to university hospital at Ojha campus of Dow University.

This university hospital is supported with the diagnostic facilities from Dow Diagnostic & Research laboratories (DDRRL) & Dow Radiology, both of them are equipped with cutting edge technology & well trained technologists & faculty.

This hospital has 500 beds to serve for teaching & training of undergraduate students of DIMC & postgraduate students. This hospital has Operation theater complex, Intensive Care Unit (ICU), Neonatal Care Unit (NICU) to support all kind of operations & care for critically ill patients respectively. It has 6 labor rooms & a well-baby nursery.

The hospital has private rooms, semi private & general ward type of accommodation to cater for each class of patient. The emergency room facility is available round the clock with backup portable ventilators & other resuscitation equipment's. The OPD block of the hospital is providing ambulatory care to 14,000 - 15,000 patients per month. The executive OPD is from 2pm till 9pm. Here our own faculty is providing the consultations at this nominal rate as a service to community, irrespective of their actual private consultation fee.

This general hospital has Resident Medical officers, nurses and paramedical staff who are available round the clock with day and night shifts. All types of major & minor surgeries are being performed by expert consultant. Labor room is also functional round the clock along with intensive care unit, which is fully equipped

Out Patient Department (OPD):

It is providing the health care facilities in the following categories.

1. NEPHROLOGIST
2. MEDICINE
3. HAEMATOLOGY

4. PHYSIOTHERAPY & OCCUPATIONAL THERAPY SERVICES
5. ONCOLOGY
6. TREATMENT AREA (Plaster of Paris, stitching, bandage of “8”)
7. CARDIOLOGY
8. DERMATOLOGY
9. GYNAECOLOGY
10. PULMONOLOGY
11. PSYCHIATRY
12. SPEECH THERAPY
13. PEADS
14. PEADS SURGERY
15. GENERAL SURGERY (all minor surgery)
16. ENT
17. NEURO SURGERY
18. UROLOGY
19. ORTHOEPEDIC
20. OBESITY CLINIC
21. NEUROLOGIST
22. GASTRO INTESTINAL
23. BREAST SURGERY
24. HEPATOBILIARY DISEASE
25. PLASTIC SURGERY

FEE STRUCTURE

There are two times and types of OPD. Fee structure is as follows:

- | | | |
|---|---------------------|-------------------------------|
| • | from 08:30 to 12:30 | Fee Rs.100/- General Clinic |
| • | from 02:00 to 09:00 | Fee Rs.300/- Executive Clinic |
| • | Medical Checkup | Fee RS 500/- |
| • | Penal Consultation | Fee RS 500/- |

Pharmacy Services:

Pharmacy provides 6 days a week services to its customer. All prescription drugs and over the counter drugs are stocked by pharmacy to cater the needs of our patients as well as patients from outside.

Vaccination Services:

Vaccination services are available as per provided by National Expanded Programme of Immunization (EPI).

Physiotherapy Services:

The Department of Physiotherapy provides comprehensive inpatient and outpatient. All Physiotherapists are here to assess and treat patients of all ages and ailments and provide an important support service for our inpatients and out patients

IN PATIENT DEPARTMENTS

- Surgical
- Medical
- Gynae / Obs
- Orthopedic
- Paeds
- Psychiatry
- E.N.T
- Dialysis
- Ultrasound
-

Critical Care Unit

- Medical ICU (11 Bed)
- Surgical ICU (06 Bed)
- Neonatal ICU (06 Incubators)
- **Operation Theater** (04 O.T Tables)
- **Labor Room**
- **Emergency Department (15 monitored Bed)**
Fully equipped 24 hours running ER including separate minor O.T,
Ultrasound & X-Ray.
- **Sleep Lab** (Polysomnography)
- **Pulmonary Function Test**
- **EMG / NCV**
- **EEG**
- **CTG**
- **VEP**
- **G.A Fitness**

❖ **9.2 University Role In Building Community**

The Dow University of Health Sciences, since its inception has been focusing on community services to provide preventive, diagnostic and treatment facilities for community health care specially to the under privileged class. The students of various undergraduate and postgraduate programs of DUHS are also actively involved with the faculty members in all the Civic Engagements of DUHS.

Civic Engagements of DUHS

● **DISASTER MANAGEMENT IN NATURAL CALAMITIES**

➤ **Earth Quake in 2005**

- DUHS arranged a workshop for handling mass casualties with disaster management cell.
- Groups of doctors, students and Allied Health Workers were send to different affected areas of Kashmir and NWFP.
- These teams provided medical & surgical treatment to the victims.

➤ **FLOOD RELIEF WORK in 2010 & 2011**

- A huge fund raising campaign was launched by Dow University of Health Sciences with the help of students and faculty to provide food, shelter and items of daily need to the large number of homeless flood victims.
- Food items and other essential products were packed and distributed personally by students in affected areas of interior Sindh.
- 19 Truckloads of medicine, food & articles were distributed.

● **SOCIAL ENTREPRENEURS**

PROVISION OF SAFE DRINKING WATER

- There is a dearth of safe drinking water especially in slum areas of Karachi. Dow University designed a filter plant, which can operate with solar light and provide clean & safe drinking water to a larger community.

- Presently three filter plants are installed at three slum areas one in Karachi and two in the interior of Sindh, which are helping the community. Further, Installations will take place soon.

- **SERVICES FOR IMPROVING QUALITY OF LIFE**

- **CORRECTION OF FUNCTIONAL DISABILITIES**

- The incidence of congenital physical and functional disorders is on the rise in Pakistan. Therefore Dow University has established Institute of Physical Medicine & Rehabilitation, a part of which is the child development centre which deals with ‘Autism’ a common problem, recognized quite late by the parents.
- This centre also conducts awareness programs for the community with the help of students for early recognition of this functional disorder and the required management.

- **TOOLS TO MAKE DEPENDENT PATIENTS INDEPENDENT**

- **PROVISION OF PHYSICAL AIDS TO DISABLE PERSONS**

- The Dow University artificial limb Centre (DUAL), provides artificial limbs, almost free of cost to limbless people so as to make them independent for their daily activities.
- More than 3500 people have been provided artificial limbs free of cost until now.

- **CREATING AWARENESS FOR PREVENTIVE STRATEGIES**

- **HEALTH EXPO**

Dow Health Expo was held at a very large scale on a span of three days at the Expo Centre Karachi, where public was attracted with light entertainment and then checkups of all specialties were offered by specialists free of cost. Blood tests and dental checkups were also done free of cost.

- **HELPING FOR CORRECTIONS**

- **COSMETIC REPAIR FOR SEVERE BURNS**

Dow University in collaboration with MS Hashmat Affendi from House of Charity (Texas USA) got two reconstructive surgery sessions performed by experienced Plastic Surgeons of Houston. About 70-80 severely disable patients were benefitted.

- **AWARENESS PROGRAMS**

- **COMMUNITY HEALTH WORK (for Dentistry)**

Students of Dow International Dental College along with their faculty members also performed the Community work regarding free dental checkups.

- **COMMUNITY HEALTH WORK (for Medical Checkups)**

Students of Dow International Medical College (DIMC) along with the faculty and an NGO have been holding camps at frequent intervals for general screening and counseling of the public.

- **GOOD PRACTICES IN NURSING**

The profession of Nursing in Pakistan's lacks in depth of knowledge and skills in clinical practice which is a great hindrance in quality of health care practices as Nurses are the back bone of Health Professions along with other paramedical staff. Therefore, students of nursing at Dow University conducted various seminars not only in various hospitals but also in the community to attract students in this dynamic profession.

- **HELPING PATIENTS OF CHRONIC DISEASES**

- **TREATMENT THROUGH CAMPS AND STUDENT'S MOTIVATION FOR PUBLIC SERVICES**

Dow University of Health Sciences organized several eye camps at various peripheral areas of the city to provide free consultation and treatment to the under privileged class of the community.

- **PROMOTING SENSE OF WELL BEING**

- **FREE PLASTIC SURGERY FOR BIRTH DEFECTS**

- **(OUTREACH PROGRAM)**

- In Pakistan, there are increasing incidences of congenital birth defects eg cleft lip & Palate, specially seen in under privileged class of the society due to various reasons including malnourishment. Dow University conducted several camps in this connection mainly in the interior of Sindh.

- Students took keen interest in motivating the patient's relatives for operation and maintaining record for further follow-up.

- **TRAINING OF HEALTH VOLUNTEERS**

FOR FIRST AID TREATMENTS by Professional Development Centre

Professional Development Centre of DUHS is not only training undergraduates, postgraduates and the faculty members but also the Allied health related workers eg Nurses, Paramedics, general students and laymen for first aid procedures.

- **REHABILITATION**

CHRONICALLY ILL PATIENTS

- The Institute of Physical Medicine & Rehabilitation (IPM&R) provides physiotherapy manually and with machines for wide variety of disorders.

- **TB PATIENTS TO BE MADE SELF EARNER**

TECHNICAL TRAINING OF TB PATIENTS DURING TREATMENT PHASE

Patients of TB require long term treatment for about 9 months to 1 year, during this period they even lose jobs, therefore the Dow University not only provides free medicines, food and others sorts of treatment but also provides technical training so that they can acquire skills and become self-earner. These skills include candle making, block printing, stitching and computer training etc.

- **BLOOD DONATION CAMPAIGN**

- Dr. Ishrat ul Ebad Khan Institute of Blood Diseases has been established for clinical research in blood diseases and for MPhil & PhD courses besides blood transfusion services to the community.
- It will also meet increasing demands of blood needed in diseases, road traffic accidents, gunshot wounds and other conditions.

- **HELPING SNAKE BITE PATIENTS**

INDUSTRIAL LINKAGE OF DOW UNIVERSITY DEVELOPED FOR ANTISNAKE VENUM PRODUCTION

Thousands of Pakistanis die every year due to non-availability of anti-snake venom, which is usually imported. Considering this problem the Dow University has developed anti-snake venom after nurturing all available species of snakes in its animal house as per required protocol. Twenty horses are hyper immunized against the snake poison. The serum of these horses will now be processed by Macter International (Pvt. Ltd) for commercial production of anti-snake venom. The MoU in this regard has already been signed by Prof. Masood Hameed Khan, Vice Chancellor, DUHS.

❖ **9.3 Alumni Affairs: Outstanding Achievement etc**

Huge counts of alumni from Dow University of Health Sciences are serving in various medical and allied health sciences of national as well international repute.

- **International Alumni Outstanding Achievements**

Above 3000 graduates of Dow University of Health Sciences are practicing in various medical institutions of USA, UK, KSA and other countries. Majority of them are supervising the different medical departments, contributing in the medical researches etc.

- **National Alumni Outstanding Achievements**

A large number of graduates of Dow University of Health Sciences are serving humanity throughout the country and hold key posts. Majority of them are the heads of various healthcare institutions.

Chapter 10

Sports

❖ 10.1 Inter-departmental sports

DUHS regularly organizes Annual Sports Week in the first week of February every year. The students of all the constituent colleges/institutes of DUHS actively participate in the event.

Different types of sports events keep them physically fit and active, whereas debates and other intellectual activities enhance their soul and heart. Not only now, but these activities also groom them for their future practical lives. These activities instill in them good communication skills, leadership qualities, team work, ability to gracefully accept their failures and elegantly celebrate their success.

During the week, various events like Naat, Qirat, English and Urdu Debates, Bait Bazi and Mushaira are arranged. Outdoor events like cricket (for both boys and girls), Football, Races, Shot put, Javelin Throw etc. are held.

Indoor events like Basket Ball, Throw ball, Netball, Badminton, Table Tennis etc are held in the state of art Gymnasium at Ojha Campus. All the events are supervised and scrutinized by Judges and referees of respected fields for transparency and professionalism.

Finally, this week long event ends with Talent Show in which students show their talents in Drama, Songs etc. followed by a grand prize distribution ceremony in which medals/shields and certificates are given.

❖ 10.2 Participation in national championships

- HEC All Pakistan Inter-University Basketball Tournament of boys 2013-2014
- Allama Iqbal Shield Declamation Contest 2013
- Regional/ National English debate Contest
- Regional/ National Urdu debate Contest
- DUHS All Karachi Inter-University Basketball Tournament (Boys)
- DUHS All Karachi Inter-University Basketball Tournament (girls)

❖ 10.3 Achievement at Regional /National level

- Won **bronze medal** in HEC All Pakistan Inter-University Basketball Tournament of boys in 2013-2014
- Won Allama Iqbal shield declamation contest 2013
- Sarim Ahmed (Dow College of Pharmacy) Secured first position in English debate at regional level

- Inshal Javed (Dow Medical College) Secured first position Urdu Debate at regional level
- Sarim Ahmed (Dow College of Pharmacy) Secured third position in English debate at National level
- Won Gold medal in DUHS All Karachi Inter-University Basketball Tournament (Boys) in 2013
- Won Silver medal in DUHS All Karachi Inter-University Basketball Tournament (Girls) in 2013

❖ **10.4 Incentives and honors/ awards for sports persons.**

DUHS awards special shields and certificates of appreciation to the winners of different sports and co-curricular / extra-curricular activities contests held at regional and / or national level.

Medallions and shields are also awarded to the winners of inter departmental sports/ contest winners.

Chapter 11

University Building Leadership

❖ **11.1 Faculty Leadership (Awards and representation in Govt policy making committees, memberships on various councils etc.)**

- The honorable Vice Chancellor, Prof. Dr. Masood Hameed Khan elected as president of Pakistan Medical & Dental Council (PM&DC) in 2014.
- The honorable Vice Chancellor, Prof. Dr. Masood Hameed Khan been nominated by the Governor of Sindh as member of Charter and Inspection Committee.
- The honorable Vice Chancellor, Prof. Dr. Masood Hameed Khan been nominated as representative of Ph.D scholars of Sindh in HEC.
- The honorable Vice Chancellor, Prof. Dr. Masood Hameed Khan been nominated as head of committee constituted by PM&DC for Post Graduate Studies.
- The honorable Vice Chancellor, Prof. Dr. Masood Hameed Khan selected as board member from Asia for Perveen Kumar (Renowned book Medicine).

Faculty Leadership Awards of other faculty members are mentioned below

S.No	Name	Title of Award	Name of Org
1	Prof. Masood Hameed Khan, Vice Chancellor, DUHS	Tamgha-e-Imtiaz	Civil award
2	Prof. Rana Qamar Masood, Director, QEC, DUHS	Tamgha-e-Imtiaz	In 2013 received Civil Award
3	Dr. Naeem Akhtar Qurashi, Medical Superintendent, DUH	Tamgha-e-Imtiaz	Received Tamgha -e - Imtiaz, Military, in 2005 in recognition of meritorious service.
4	Prof. Sumbul Shamim, Principal, DCOP, DUHS	Honorary Award	Awarded with the honor of being " Productive Scientist of Pakistan " by Ministry of Science and Technology, Govt. of Pakistan
5	Prof. Shahid Wahab, Prof. of Ophthalmology, DMC/CHK	Gold Medal	Received Honorable Presidential Gold Medal Award of 2012
3	Prof. Khalid Ahsan Malik	1.Scholarship	1. International College of Surgeon, USA.

		2.Performance Award	2.Mehran University
4	Prof. Raza -ur - Rehman	Life Time Achievement Award	1. Pakistan Psychiatry Society in 2013Pakistan 2.SMC Alumni in 2013
5	Prof. Salahuddin Afsar	1.Tamgha-e-Imtiaz 2.Scholarship Award	1. Presidential Award. 2.CPSP
6	Prof. Nazli Hossain	Best University Teacher Award, 2013	Higher Education Commission
7	Dr. Kashif Shafique	1.Early Career Award 2.Dr. Irfan A.Khan Memorial Award	Year of Award 2014, by International Society of Behavioral Medicine. December 2014, by Dow Graduate Association of North America
8	Prof. Masood Anwar Qureshi	HEC Approved Research Supervisor (Biomedical & Pharmaceutical Sciences) – Physiology	1- HEC, Govt of Pakistan. 2- 1965-1968 Pre-doctoral Research Fellowship (British Diabetic Association) ; Dept. of Biological Sciences, Univ. of Aston, Birmingham, UK. 3- 1968-1971 Post-doctoral Fellowship (Welcome Trust) : Dept. of Biological Sciences, Univ.of Aston, Birmingham, UK. 4- 1974 Cash award for research publications: by University of Karachi. 5- 1977-79 Post-doctoral Alexander-von-Humboldt Research Scholar Award by AVHStiftung, Germany: Dept.

			<p>of Endocrinology & Metabolism, Univ. of Ulm, Ulm Klinik, Ulm/Donau, Germany; Collaborator: Prof. Dr. E.F Pfeiffer.</p> <p>6- 1991-92 Sr. Fulbright Visiting Research Scholar: by Council for International Exchange of Scholars, Washington, USA; Laboratory of Molecular Genetics, NIEHS, NIH, NC, USA;</p> <p>7- 1994-95 National award for research publications: National Book Foundation, Ministry of Education, Govt. of Pakis.</p> <p>8- Award for Excellence, Graduate Poultry Club, Karachi Univ. 1996-97 Nishan-e-Zafar: for meritorious services to teaching & research at Karachi university by Univ. of Karachi.</p> <p>9- 1997 Certificate of Appreciation: in recognition of meritorious work by Univ. of Karachi.</p> <p>10- 1998 Ranked 6th: Leading Scientists of Pakistan (Biological Sciences) by Council for Science and Technology, Govt. of Pakistan.</p> <p>11- Award for recognition of services in Physiotherapy, Karachi Physio Lions Club 2000.</p> <p>12- President's Award 'Pride</p>
--	--	--	--

			<p>and Performance’, Govt. of Pakistan.</p> <p>13-2000-2 President, Pakistan Physiological Society – national society of Physiology.</p> <p>14- 2000 Shield of Appreciation: Nishan-e-Azamate Danish: by Karachi University Teacher’s Association, University of Karachi</p> <p>15- 2001 Meritorious Professor (BPS21), University of Karachi</p> <p>16- 2010 Best University Teacher Award 2009 (awarded in 2010), Higher Education Commission, Govt. of Pakistan</p>
12	Prof. Khalida Soomro, Prof. of Cardiology, DMC/CHK		Award was given in 2001 by the governor of Sindh Muhammad Mian Soomro on establishment of new setup of CCU and improvement in cardiology department
13	Prof. Abdul Bari khan, Chairperson, Department of Cardiac Surgery		<p>President of Pakistan announced Tamgha-e-Imtiaz on services in social work in Health Sector in 2014.</p> <p>Life Time Achievement Award by Dow Graduate Association of North America (DOGANA)-2009.</p>

			Outstanding Services Gold Medal-Governor Sindh 2002
--	--	--	---

Representative in Committee:

S.No	Name	Title	Name of Org
1	Prof. Khalid Ahsan Malik	Member	Medical Board of Sindh Govt Disciplinary Committee of PMDC
	Prof. Khalid Ahsan Malik	Inspector	PM&DC for inspection & evaluation of different Universities / Colleges
2	Prof. Raza-Ur-Rehman	Chief Organizer	Pakistan Psychiatric Society, 2013 International Psychiatric Conference
3	Dr. Fareed-Uddin	Member	Primary Care Diabetic Association, Pakistan
4	Hakim Shah	Facilitator	Inter District Quarterly Conferences and meetings of TB Surveillance Program Sindh.
5	Dr. Zahid Azam	Member	Technical evaluation committee of Health Department, Govt of Sind for the procurement of Elastography machine for Sindh Govt. hospital through special funds from Govt. Sind.
6	Prof. Saeed Quraishy	Head	Trauma Centre project in capacity of MS CHK
7	Prof. Shahid Wahab	Project Director	Project of Surveillance at Sindh govt
28	Qamar Uddin Baloch	Member	PMDC, PMA, Society of Gastroenterology and Faculty of Surgery at CPSP.
31	Prof. Khalida Soomro, Prof. of	Member	1- purchasing committee of Mohtarma Benazir

	Cardiology, DMC/CHK		Bhutto Trauma Center. 2- procurement committee for equipment and Drugs of the health department government of Sindh and Member board of Services Hospital
--	------------------------	--	--

Membership in Various Councils:

S.No	Name	Council	Status
4	Prof. Raza ur rehman	Abdul Qadeer Khan Inst. Of Psychiatry	BOG
5	Prof. Nazli Hossain	PMDC	Convener Technical Advisory Committee
7	Hakim Shah	1- Provincial Nursing Federation (PNF) Sindh. 2- Pakistan Nursing Council. Membership No- A-32132.	Member
19	Prof. Sumbul Shamim	Member	1- Board of Studies, Department of Pharmacology, Faculty of Pharmacy, University of Karachi. 2- Board of Faculty, Faculty of Pharmacy, Federal Urdu University for Arts, Science and Technology
20	Prof. Shahid Wahab	CPSP	Secretary of Ophthalmology
21	Qamar Us Salam	Member	Radiological Society of Pakistan
22	Shahida Parveen	PMA CPSP	Member Regular Examiner
23	Ghulam Murtaza	PDA – Pakistan Pediatric Association	Member
24	Prof. Junaid Ashraf	PMDC	Member

❖ **11.2 Student leadership (Co-curricular Activities: University dramas, exhibition, expos, competitions debates at national and international levels)**

- **Sarim Ahmed** - (Dow College of Pharmacy) winner of national and regional English debate contests
- **Inshal Javed** - (Dow Medical College) winner of regional Urdu debate contests
- **Ammara Mushtaq** – attended 53rd Inter-Science Conference on Antimicrobial Agents and Chemotherapy in 2013 Sept 10-13; Denver, CO, USA for an oral presentation on "Risk Factors for blaNDM Community Carriage and Nosocomial Acquisition in a Tertiary-Care Hospital in Karachi, Pakistan". She received 1500/- GBP from British Society of Antimicrobial Chemotherapy (BSAC) to fund her travel.
- **Ammara Mushtaq** - attended Lindau Nobel Laureates Meeting on 29 Jun to 4 July 2014. HEC selected 10 scientists from all over Pakistan and forwarded the names to Lindau Council in Germany, which selected only 04 out of these 10. Ammara Mushtaq from DUHS was one of them, and her travel was funded by HEC.
- **Ammara Mushtaq** – attended Risk Factors for blaNDM Community Carriage and Nosocomial Acquisition in a Tertiary-Care Hospital in Karachi, Pakistan. This was a poster presentation on "Frequency of carriage of New Delhi metallo beta-lactamase-1 (NDM-1) and CTX-M-15 among patients from hospitals in Karachi: preliminary data assessing risk factors for carriage and infection".

Chapter 12

Finance

DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI
FINANCE DIRECTORATE

Amount in Million

Chapter-12 Finance	Particular	Approved Budget 2013-14	Actual 2013-14
12.1	Annual Statement of Accounts	In Process	
12.2	Financial year at a Glance	Annexure: I	
12.3	Audit Report	AG Sindh Audit Para Nil	
12.4	Development Budget	258.149	
12.5	Recurring Budget	1463.923	1354.550
12.6	Self-Generated Income	853.500	910.657
12.7	SAP related activities	DUHS follows PPRA Rules	
12.8	Trend of Per Student Spending	Exp. 1463.923/5190 Students = 0.282	
			2013-14
			0.282

Annexure I
FINANCIAL YEAR AT A GLANCE
DOW UNIVERSITY OF HEALTH SCIENCES, KARACHI
2013-14

Amount in Million

Particulars	Approved Budget 2013-14	Actual 2013-14
Grants	389.226	446.343
a. Federal Government Grant	389.226	446.343
Total Own Resources	853.500	910.657
a. <i>Tuition Fee</i>	723.500	742.111
b. <i>Other Charges / Income</i>	130.000	168.546
Total Available Resources	1,242.726	1,357.000
Expenditure	1,463.923	1,354.550
a. Pay & Allowances	755.800	820.275
b. Non Salary Expenses / Other Charges	708.123	534.275
Surplus / Deficit	(221.197)	2.450

Chapter 13

University Governance

❖ **13.1 Syndicate meetings**

Powers and duties of the Syndicate

(1) The Syndicate shall be the executive body of the University and shall, subject to the provisions of this Act and the statutes, exercise general supervision over the affairs and management of the property of the University.

(2) Without prejudice to the generality of the foregoing power, the Syndicate shall have powers –

(a) to determine the form, provide for the custody and, regulate the use of the common seal of the University;

(b) to hold, manage, receive, acquire in any manner or transfer by sale or otherwise, any movable or immovable property, on behalf of the University;

(c) to hold, administer and control funds on behalf of the University and after giving the due regard to the advice of the Finance and Planning Committees, invest such funds in Government securities or such other securities as may be prescribed;

(d) to consider the annual and revised budget estimates and advise the Senate thereon and re-appropriate funds from one major head of expenditure to another;

(e) to cause to be maintained books of accounts of all financial transaction including the assets and liabilities of the University;

(f) to enter into contracts on behalf of the University;

(g) to provide buildings and other premises, libraries, furniture, apparatus equipment and such other things required for the University;

(h) to establish and maintain halls of residence or hostel for students and approve any place as hostel or lodging of students;

(i) to affiliate and disaffiliate colleges;

(j) to admit colleges to the privileges of the University and withdraw such privileges;

(k) to cause inspections to be made of the colleges and the Teaching Department;

(l) to create posts in connection with teaching, research, extension administration, training and for any other purposes related thereto;

(m) to appoint, on the recommendation of the Selection Board, University Teachers and employees to posts in BPS-17 and above of the National Pay Scale;

(n) to appoint Emeritus Professors on such terms and conditions as may be prescribed;

(o) to suspend, punish and remove from service, officers (other-than the Vice-Chancellor), teachers and other employees in the prescribed manner.

(p) to appoint members to the Authorities in accordance with the provisions of this Act;

(q) to confer, subject to the approval of the Chancellor, Honorary Degrees in accordance with the conditions as may be prescribed;

(r) to propose drafts of statutes for submission to the Senate;

(s) to consider and approve regulations proposed by the Academic Council, or frame regulations after calling for the advice of the Academic Council;

(t) to furnish report on any matter called for by the Senate;

(u) to deal with the matters concerning the University not provided for, in this Act in any manner as it may deem fit; and

(v) to delegate any of its powers to an Authority or Officer or a Committee or Sub-Committee.

Syndicate Meetings

2013 (5 meetings)

53rd meeting (Special) of Syndicate held on Saturday, the 12th January, 2013

54th meeting of Syndicate held on Saturday, the 30th March, 2013

55th meeting of Syndicate held on Saturday, the 20th April, 2013

56th meeting (Special) of Syndicate held on Friday, the 3rd May, 2013

57th meeting of Syndicate held on Saturday, the 15th June, 2013

2014 (3 meetings)

58th meeting of Syndicate held on Wednesday, the 24th September, 2014

59th meeting (Re-Held) of Syndicate held on Friday, the 17th October, 2014

60th meeting (Special) of Syndicate held on Wednesday, the 5th November, 2014.

❖ **13.2 Academic Council meetings**

Powers and duties of the Academic Council

(1) The Academic Council shall be the academic body of the University and shall, subject to the provisions of this Act, the statutes and the regulations have the powers to lay down proper standards of instructions, scholarship, research and examinations, and to regulate and promote the academic life of the University and the colleges.

(2) Without prejudice to the generality of the foregoing powers, and subject to the provisions of this Act, the statutes and the regulations, the Academic Council shall have the power—

- (a) to advise the Syndicate on academic matters;
- (b) to regulate the conduct of teaching, research and examinations;
- (c) to regulate the admission of students to the courses of studies and examination of the University;
- (d) to regulate the award of studentship, scholarships, medals and prizes;
- (e) to regulate the conduct and discipline of the students of the University;
- (f) to propose to the Syndicate schemes for the constitution and organization of Faculties, Teaching Departments and Board of Studies;
- (g) to initiate regulations for consideration and approval of the Syndicate;
- (h) to propose regulations annually, on the recommendations of any Board of Faculty or the Board of Studies, prescribing the courses of studies, the syllabi and the outlines of texts for all University examinations; provided that if the recommendations of such Boards are not received by the prescribed date, the Academic Council may, subject to approval of the Syndicate, permit such regulations to continue for the next following year;
- (i) to recognize the examinations of other universities or examination bodies as equivalent to the corresponding examinations of the University;
- (j) to appoint members to the Authorities in accordance with the provisions of this Act;
- (k) to consider or formulate proposals for the planning and development of teaching and research in the University;
- (l) to arrange short and long term training and courses within the country and abroad as prescribed under the rules; and
- (m) to perform such other functions as may be prescribed by the statutes.

Academic Council Meetings

2013 (1 meeting)

12th meeting of Academic Council held on Monday, the 25th March, 2013

2014

Nil

❖ 13.3 Board of Advanced, Studies meetings

Functions for the Advanced Studies and Research Board

The functions for the Advanced Studies and Research Board shall be–

- (a) to advise the authorities on all matters connected with the promotion of Advanced Studies and Research in the University;
- (b) to propose regulations regarding the award of research degrees;
- (c) to appoint supervisors for research students to determine the subject of their thesis;
- (d) to recommend panels of names of paper setters and examiners for research examination after considering the proposals of the Board of Studies in this behalf; and
- (e) to perform such other functions as may be prescribed by the statutes.

Board of Advanced Studies Meetings

2013 (8 meetings)

28th meeting of Board of Advanced Studies and Research held on 19th February, 2013

29th meeting of Board of Advanced Studies and Research held on 24th April, 2013

30th meeting of Board of Advanced Studies and Research held on 4th June, 2013

31st meeting of Board of Advanced Studies and Research held on 25th July, 2013

32nd meeting of Board of Advanced Studies and Research held on 16th September, 2013

33rd meeting of Board of Advanced Studies and Research held on 7th October, 2013

34th meeting of Board of Advanced Studies and Research held on 18th November, 2013

35th meeting of Board of Advanced Studies and Research held on 21st December, 2013

2014 (6 meetings)

36th meeting of Board of Advanced Studies and Research held on 22nd January, 2014

37th meeting of Board of Advanced Studies and Research held on 29th March, 2014

38th meeting of Board of Advanced Studies and Research held on 22nd April, 2014

39th meeting of Board of Advanced Studies and Research held on 9th June, 2014

40th meeting of Board of Advanced Studies and Research held on 13th October, 2014

41st meeting of Board of Advanced Studies and Research held on 1st December, 2014

Chapter 14

Office of Resource Generation Development

Chapter: 14 Office of Resource Generation / Development

The Vice Chancellor of Dow University of Health Sciences heads the office of Resource Generation / Development. The office is responsible to organize, administrate and manage projects for University Development and control the general activities of the University. The main function of this office is to generate resources for University Development Programs and provide better health service to the community. The office is also working on National or International collaboration with Universities and industrial linkages with organizations to enhance the various activities of the University.

❖ 14.1 New Initiatives & Implementations

A- Dow University Establishes Industrial Linkage with Mactor International For....Anti Snake Venom Production

Thousands of Pakistani die every year due to non-availability of antisnake venom, which is usually imported. Considering this problem the Dow University has developed anti-snake venom after nurturing all available species of snakes in its animal house as per required protocol. Twenty Horses are hyper immunized against the snake position. Mactor International (Pvt. Ltd) will now process the serum of these horses for commercial production of anti-snake venom. The MoU in this regard has already been signed by Macter International (Pvt) Ltd and DUHS.

B- Dow Club Card

The DUHS introduced Dow Club Card to provide maximum possible facilities to the students, faculty members and alumni of DUHS. Variable discount can be availed at various places, including restaurants, hotels and numbers of outlets. This facility is provided at yearly meager charges for students and faculty members respectively.

C- Health Insurance Policy

Health Insurance Policy has been provided by Dow University for the employees and their families. The insurance cards allowed them to avail indoor-outdoor facilities as per range of their specific grades. This facility can be availed in any private hospital of Karachi.

D- Hand Sanitizer

The DUHS has taken initiative for providing sanitization to the hospital staff of DUHS free from alcohol. Hence, for this purpose a wholesome of aqueous preparation was to be considered.

Formulation of water based gel hand sanitizer for commercial use at Dow University of Health sciences, in collaboration with Institute of Biological Biochemical and Pharmaceutical Sciences (IBBPS) for better application of the subject. The major goal was to create a hand sanitizer in aqueous gel form containing an anti-bacterial activity. The formulation was completed and sent for use in hospital.

E- Project of RIVA Drinking Water

The Dow University of Health Sciences established state-of-art Reverse Osmosis Double Pass Premium Drinking Water Plant for the provision of Safe Drinking Water by name of 'RIVA' packed in 19 liters bottles. The premium drinking water plant aim for the benefit of patients and the public, 1000 Gallons/day are produced to be sealed in 19-liter bottles. Riva drinking water is purified through 11 steps of Hydration, starting from chlorination and ending with UV sterilization. The manufacturing facilities are of international standards.

❖ 14.2 Future Plans

A- New Post graduate Programs

The DUHS will start Additional Post graduate Programs, which include:

1. Ph.D. in Pharmaceutical Sciences.
2. Ph.D. in Public Health.
3. Ph.D. in Clinical Sciences (Indigenous Program).

B- New DUHS Projects

1. Institute of Mental Health
2. Institute of Neuro Sciences

3. Extension of National Institute of Liver & GI Disease (NILGID) for Liver Transplant Unit.
4. Tele Medicine Centre
5. Trauma & Emergency Centre
6. New Spacious OPD Block of DUH
7. Mother & Child Care Centre.

C- New Campus of Dow University to Be Opened At DHA City Karachi:

Pakistan Defense Housing Society shall give its 10.6 acres of land located at Super Highway, Karachi to Dow University of Health Sciences to establish a setup like Ojha Campus. The Agreement between Pakistan Defense Housing Society and Dow University of Health Sciences has been signed. The Dow University of Health Sciences will establish a Medical Complex as specified below for 500-bedded tertiary care Teaching Hospital with College of Medicine & Allied Medical Fields for Liver Transplant unit including the Housing Facilities for staff and students along with all required allied amenities.

There will be four phases of Development

- i- Phase-1 (Medical Dispensary)
- ii- Phase-2 (Medical Centre)
- iii- Phase-3 (Secondary Care Hospital)
- iv- Phase-4 (Tertiary care Hospital)

The Establishment of Hospital and Medical College will be very first Magnet project to attract public attention. This project will also prove to be catalyst for the future interventions in healthcare, education & entertainment.

D- Mehran Town Project:

The Dow University of Health Sciences plan to establish satellite clinic/filter clinic at Mehran Town, Korangi, Karachi. The land is measuring 400 sq. yard and DUHS will establish Dental Clinic as per need of the people resident at Korangi Area. The land gifted by Dr. M.

Faizur Rehman Siddiqui to Dow University of Health Sciences and MoU between Dr. M. Faizur Rehman Siddiqui & Dow University of Health Sciences has been signed. This project is a significant step for providing best medical & health care facilities not only to the residents of Korangi area but also to the surrounding areas.

E- Radiological Labs

The DUHS plan to expand its Radiological labs in Sukkar City to provide its service at doorstep to the community. The labs offer a full range of diagnostic and screening services to meet the need of patients on very competitive rates.

F- DDR&RL Units

The rate of infant mortality or maternal mortality is increasing day by day. In order to reduce this rate or to save mother and child's life, DUHS has planned to expand its Ultrasound and Obstetric Ultrasound services at different Units of Dow Lab.

H- DICE Health Event

The University enhanced its industry linkage by signing MOU with the international organization, DICE Foundation, it will act as a pragmatic platform for health related innovation & for collaboration among academia, industry, government, entrepreneurs and expatriate community on all matters pertaining to the growth of health sector in Pakistan. The objective of this event is to create a positive and favourable image of Pakistan health industry in the eyes of international community – i.e. country fully capable of developing innovative health products and provide health service to the rest of world. The MoU has been signed between DICE Foundation and DUHS for planning of all Pakistan DICE Health 2015 events at DUHS.

Chapter 15

Health Centre/Medical Facilities

❖ **15.1 Medical Facilities available**

Dow University of Health Sciences has wide range of medical facilities available for its students, employees and the community. A big number of population take benefits from the medical facilities offered by DUHS and patients from other parts of the province visit its hospitals, different centres and institutes for treatment of their different health problems. These medical facilities are discussed in detail in next paragraphs.

Hospital and Health Care Facilities Established/Managed by DUHS

Dow University of Health sciences have established a number of healthcare units to serve the community. These medical units include:

- Dow University Hospital
- National Institute of Diabetes and Endocrinology
- National Institute of Live and GI Disease
- Sarwar Zuberi Liver Centre
- Centre of Bariatric Surgery
- Cochlear Implant Program
- Dow Diagnostic Research and Reference Laboratory.
- Radiological testing Services.
- Physiotherapy Unit
- Artificial Limb Centre
- Blood Transfusion Unit
- OJHA Institute of Chest Disease

The services offered by the above mentioned healthcare units are discussed in upcoming pages.

1. Dow University Hospital

Dow University Hospital is a tertiary care teaching University Hospital attached to Dow International Medical College (DIMC). This hospital also serves as a teaching unit for Institute of Nursing & Clinical Pharmacology rotation for students of Dow College of Pharmacy, housed adjacent to Dow University Hospital at Ojha campus of Dow University.

The detail of Medical facilities available at Dow University Hospital has already been discussed in Chapter- 9

2. National Institute Of Diabetes & Endocrinology (NIDE)

Diabetes is a growing problem of Pakistan; hence the National Institute of Diabetes & Endocrinology was established in 2006. It provides free consultation and counseling to patients suffering from

diabetes and other endocrine diseases. It also has facilities for management and treatment of eye complications of diabetes through its Eye Care Center including laser treatment.

More than 15,000 patients have been registered up till now at NIDE. Public awareness programs are also regularly conducted at NIDE.

3. National Institute of Liver and GI Diseases (NILGID) & Sarwar Zuberi Liver Centre:

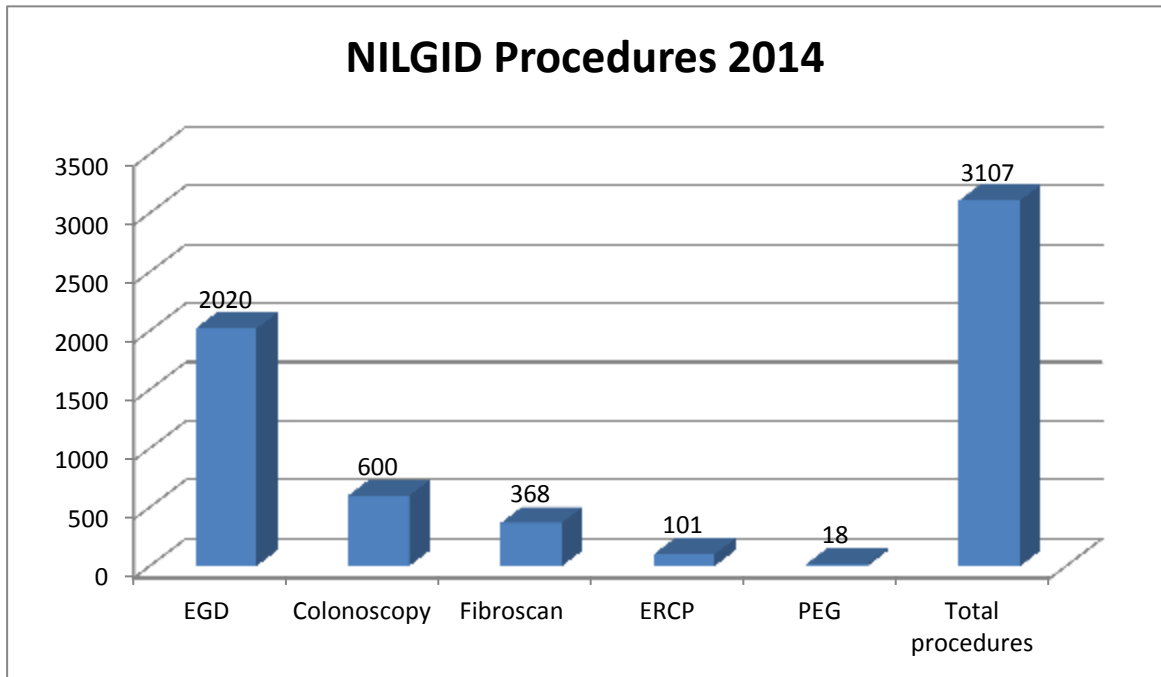
The National Institute of Liver & GI Diseases (NILGID) is an Institute catering patients in the field of Liver & Gastrointestinal diseases. It's another campus at DMC-CHK in 2012, was renamed as National Institute of Liver & GI Diseases, DMC campus from Sarwar Zuberi Liver Center housed at Medical Unit V of Civil Hospital Karachi.

- **ENDOSCOPY SUITE**

The Endoscopy section provides facility of advance endoscopic procedures. The following graph depicts the endoscopy services offered by NILGID during 2013-2014.

- **Endoscopy & Fibroscan volumes:**

	2013	2014
Endoscopy Procedures including interventions	2282	3138
Fibroscan	109	368



- **OPD of NILGID**

NILGID has been recognized as one of the institute, which has made change in medical services at very affordable rate. Apart from that, NILGID is collaborating with MSF, Infaq foundation, Sina foundation & Al-Rehman trust for treatment of patients and these organization help NILGID for patient support. NILGID faculty has one of the busiest Outpatient departments at DUHS. Every faculty member performs 5 OPDs per week. Out these five, 4 are conducted at DUHS, Ojha campus while every faculty member has to do one per week SZLC OPD.

Salient feature and census of the last year OPDs is given below:

General OPD:

1. Every consultant has to perform at least 2 General OPDs per week. The timing of these OPDs is from 8:30 am until 13:00 hrs.
2. Every consultant has to cater up to a maximum number of 30 patients.
3. **11,000 patients were treated at General OPD** by NILGID faculty.

Executive OPD:

1. Like General OPD every consultant Gastroenterologist at NILGID performs two Executive OPDs per week.
2. It is an ideal facility for NILGID patients arriving from far reach and remote areas. Since they can go back to their home town on same day.

3. It also provides a substitute for the General OPD patients if they miss the appointment for some reason.
4. Executive OPD turnover was 7000 patients at NILGID.

4. SARWAR ZUBERI LIVER CENTRE (SZLC)

The Sarwar Zuberi Liver Centre was established by Dow University eight years back in May 2004 to focus on individual patients as per requirement. Many facilities are offered to the patients at SZLC, which aims at diagnosis and treatment at minimum cost or with Zakat if applicable.

This Centre was named to honour legend of Hepatitis, Dr. Sarwar Jahan Zuberi, who met untimely death just few days before the inauguration of this liver centre in 2004.

The treatment of chronic liver diseases is provided either by Zakat, Adopt a Patient Scheme or at 30% of the market cost, depending upon the affordability of the Patient.

Endoscopies and Liver biopsies are also performed. The data is computerized and several research papers have also been presented or published.

More than 80,000 patients have been registered at SZLC of Dow University of Health Sciences until now.

SZLC clinic:

1. SZLC clinic is an old tradition or roots of NILGID. Every consultant rotates on weekly basis at SZLC where a total of around 20 patients are seen by RMO along with consultant physician.

NILGID OPD has catered over 25000 patients in last year. It has already gained a respectful position among patients visiting long distances not only from different parts of country.

5. Centre of Bariatric Surgery

Obesity and overweight is a huge problem of present era not only in Pakistan but world over. This is because of sedentary life style. Most of the chronic illnesses e.g. Diabetes, high blood pressure, Cardiac problems and stroke etc. are directly related to obesity. More than 50% of obese people are unable to reduce weight by diet and exercise despite efforts.

Bariatric surgery is emerging as best current treatment for morbid obesity and has proven to be the most effective long-term management for sustained weight loss. It is a process in which bigger loose part of stomach is stapled with specialized ways leaving out less space, enough to fulfill the food requirement of the individual. The specialized process is not only very expensive in private set up but also lacks expertise.

Dow University of Health Sciences offers comprehensive solution for surgical weight loss and focused on long-term success. The Centre of Bariatric Surgery of Dow University of Health Sciences started in October 2012. This centre at DUHS performs surgery by experts only at the cost of required staples, hence very economical and effective.

Types of surgery performed at the Centre

There are three types of surgical procedures for obesity, which are all laparoscopic.

1. Roux-en-Y gastric bypass,
2. Sleeve gastrectomy, and
3. Adjustable gastric banding.

6. COCHLEAR IMPLANT PROGRAM

Pakistan is a developing country having prevalence of certain indigenous health issues since its inception. Hearing impairment is one of the major issue pounding unnecessary burdens on the society. According to a survey, about 15% of the population is suffering from hearing impairment, majority of them are due to preventable causes. Share amount of people suffered from Sensorineural Hearing Loss (SNHL) due to congenital reasons and if it is not detected & rehabilitated early, it can leads to deaf mutes.

Cases of congenital SNHL are increasing day by day due to variety of socio-cultural reasons in our region. In vast majority of these cases, conventional rehab measures with the use of hearing aids and/or speech therapy are not much beneficial. Cochlear implant is relatively newer technique that can cater the needs of majority of such cases if they meet the criteria of cochlear implant candidacy. The major concerned in its applicability all over the globe, is the cost of implant, pre-implant assessment and post implant rehabilitation.

The cost incurred in private sector in Pakistan is very high (25000 USD) which cannot be afforded by many parents especially from lower and middle class.

Considering the gravity of the situation, Dow University of Health Sciences, launched its Cochlear implant program with the aim of implanting the needy & suitable candidates of the families who cannot afford the cost. We also endeavor to setup fully equipped audio-vestibular institute for pre- implant assessment and post -implant rehabilitation. Estimated cost of implant and other expenses is 15000 USD. Initial funding of Rupees 10 million was pooled by DUHS. We approached and requested philanthropists and NGO's for donations and zakat funds to contribute in the pool for running the program successfully in future.

Up till now 13 cases had been implanted free of charge after selection by standard international criteria of cochlear implant candidacy. The implantation was done in December 2012 (Two cases), July 2013 (Two cases) and November 2014 (09 cases).

More than 350 registered candidates waiting for the implant and in last week of February 2015 the Dow University of Health Sciences is conducting the fourth round of cochlear implant surgeries in which fourteen patients will be operated from funding by the university philanthropist & partial-sharing by few patients.

7. Dow Diagnostic Research and Reference Laboratory (DDRRL)

The Dow Clinical & Research Laboratory has been established to provide reliable, high quality diagnostic services of International Standards for routine and specialized tests at, extremely economical rates (approx. at 30% as compared to private ones) for all socioeconomic segments of population (Annex- B comparative statement of diagnostic services provided by DDRL and competitors)

It's the fastest growing lab of Pakistan. Monthly about 25,000 tests are performed and until now more than one million tests have been performed. Internal Quality Assurance is guaranteed by daily controls. Provision of online electronic reporting & Image transfer facilities exist.

Besides the main lab, presently there are five collection centers of Dow Lab, near Civil Hospital, Jinnah Hospital, Malir, Nazimabad and Federal B Area, to provide easy accessibility to the clients for diagnostic laboratory services.

8. Radiological Testing Services

The Dow Radiology Complex was established in 2008 and since its inception it is providing economical radiological testing services to patients. It offers a full range of diagnostic and screening services to meet the needs of patients on very competitive rates around 1/3rd to 1/4th as compared to other centers in the city.

- It also offers a filmless digital environment for image viewing, reporting, as well as storage with the Picture Archiving and Communication System (PACS).

The services offered by the Institute include provision of all modern diagnostic facilities e.g.

- X-rays
- Ultrasound (09 Nine Machines)
- Fluoroscopy
- Dexa Scan
- Echocardiography
- Mammography
- CT Scan (03 Three Machines)
- MRI (03 Three Machines including one open MRI for Claustrophobic patients).
- 2 MRI Machines (including 1.5 Tesla) and 2 CT Machines, which are functioning 24 hours.
-

Considering the growing demands of patient a City Campus on Stadium Road has been established near TV Station. named as 'Dow LEJ Campus' and it provides facilities of CT & MRI, 24 hrs. The two Dow Lab Collection Centres at Nazimabad & F.B. Area have also the ultrasound facility performed by experienced sonologists.

9. Physiotherapy Department

Dow University of Health Sciences also offers physiotherapy services to outpatients through the attached department of the School of Physical Therapy at Institute of Physical Medicine & Rehabilitation (IPM&R). This department provides comprehensive rehabilitation services, i.e. cardiac, neurological musculoskeletal and pediatric rehabilitation, currently providing physiotherapy services to more than 55 patients per day. Since its establishment 14000 patients have been provided with physiotherapy services.

10. Artificial Limb Centre

The Department of Prosthetics & Orthotics is serving the community by providing high quality prosthetics & orthotics appliances. During the year 2014, approx. 1580 patients benefited from the services of this department. Other than serving patients arriving at the centre, this centre is also facilitating other medical institutions for artificial limbs and appliances. Some of these services include facilitation offered to Jinnah Post Graduate Medical Centre for the Department of Orthopedics Club Foot Clinic by providing 300 Dennis brown splints for their congenital talipes equi-varus patients and providing Deniss Brown Splints for CTEV Patient (Clubfoot clinic).

11. Blood Transfusion Services Program

Safe blood is a crucial and irreplaceable component in the medical management of many diseases. In Karachi, because of the massive influx of patients from interior Sindh and other rural countryside, the demand of safe blood for transfusion could not be met with only replacement donors. Blood shortage in Pakistan is documented to be about 40% and this problem is further accelerated by inappropriate use of blood and its products.

Dow University of Health Sciences has taken the initiative towards provision of safe blood products to the needy patients. The overall project objective is to contribute to lowering haemorrhage mortality and to reduce the risk of transfusion transmitted infectious diseases and provision of safe and efficacious blood and blood products. The Voluntary non-remunerated blood donation (VNRBD) is the ideal source of quality blood, which forms less than 15 % of the demand of the blood in Pakistan. Under this initiative, Safe Blood Transfusion Services have been initiated with the strong pillars of voluntary blood donation with considerable community outreach, training of human resource in blood banking and transfusion medicine as per the recent scientific techniques and under the WHO recommended Quality Management principles, developing service delivery in blood banking and transfusion laboratory sciences with continuous education and research in transfusion medicine.

DUHS blood donation services are extremely active under Donor Management Department of the Centre and disseminating the message of Voluntary blood Donation to the population at large. The purpose is:

1. Creation of a culture of voluntary blood donation through communication and education.
2. Build a stable blood donor pool by motivating and recruiting new donors from low-risk populations, and encouraging existing or lapsed donors to become regular donors and to recognize the contribution to society made by blood donors.
3. Provide quality donor care, so that blood donation is not onerous
4. Provide quality assured blood products to all the needy patients
5. And create a sustainable foundation of advanced WHO recommended blood banking in Pakistan.

12. Ojha Institute of Chest Diseases (OICD) & Chest Disease Clinics

OICD was established in the early forties, as a TB sanatorium and now recognized as a center of excellence for Tuberculosis by the World Health Organization (WHO). The services provided here are free of cost and normally such type of ICU services costs around Rs. 20,000 - Rs. 50,000 / day in private hospitals.

The facilities provided to patients include high quality diet, recreation environment with TV, cable etc. and vocational training and support in the form of training for candle making and stitching etc. The Dow University takes the responsibility to sell their products for them.

Four out-patient clinics of OICD in the periphery of the city are also functioning, these are chest clinics of Iqbal Yad, Nazimabad, Lyari and Malir, Each clinic has a well-organized DOT (Directly Observed Treatment), where these patients with TB are provided medicines and health education.

Daily about 600 patients visit these TB clinics for DOTS treatment and follow up.

TB HOSPITAL of 250 beds provides all possible facilities to indoor and outdoor patients for diagnosis and treatment of tuberculosis.

MULTI DRUG RESISTANT (MDR) TB is a great problem. In Pakistan about 15,000-20,000 tuberculosis patients presently suffering from Multi-Drug Resistant (MDR TB), each patient requires approx 500,000 Rs. for management including costly medicines and other logistics but at OICD their treatment is free.

❖ 15.2 Counseling for Stress Reduction.

- For Students:

Dow University of Health Sciences, Karachi, has taken the initiative to council the University students for their stress reduction by facilitating or providing financial assistance through various Institutions/Organizations. There are various organizations which are not in connection with the University, in such organizations University still facilitates students as a forwarding authority like others. Currently University signed MOU with various philanthropists, to facilitate students as well as channelize system. Meanwhile, University forwarded applications to the following Institutions with respective assistance/facility;

S #	INSTITUTION/ORGANIZATION	TYPE OF ASSISTANCE
1	Ihsan Trust	Qarz-E-Hasna
2	Professional Education Foundation	Qarz-E-Hasna / Zakat
3	Abdullah T Mohammed Wehwaria & Farhat Aleem Scholarship	Scholarship
4	University Of Karachi Alumni Association	Scholarship
5	Endowment Fund Scholarship	Scholarship
6	Fauji Foundation	Stipend
7	Staff Welfare Organization	Stipend
8	Federal Employees Benevolent and Group Insurance Funds	Stipend
9	NBP Student Loan Scheme	Loan

Dow University of Health Sciences, Karachi, establish University Advancement Cell and Financial Aid Office for the financial facilitation/assistance to the students. The University is engaged in the process of increasing the number of funding organization / philanthropist and sign MOU with them. The University future planning is to enhance duration of refunding amount of scholarship and develop a new fee structure with emphasis on minimizing the burden of scholarship awardee, to increase promotional activities through workshops, seminars, social media etc. and to arrange Symposium of different funding agencies with students, so that they may explain their program to students directly.

- For DUHS Employees

Health Insurance Scheme for DUHS employees

Financial responsibilities are considered as the main source of stress. To reduce the financial burden of its employees; DUHS provides medical insurance coverage to its all employees appointed on Regular basis and to /Contractual basis with at least one year service.

The insurance coverage is currently provided by Asia Care Health & Life Insurance Co. Ltd. The details of this health insurance scheme are discussed here as under:

The Employees & their dependents covered are divided in the following categories:-

BENEFIT STRUCTURES:-

Sr. #	Benefits / Coverage	<u>Categories and Annual Entitlements in Rs.</u>			
		Plan -A	Plan -B	Plan-C	Plan-D
		B-21 & 22	B-19 & 20	B-16 to 18	B-1 to 15
1	Hospitalization Coverage per Insured per Annum	650,000	500,000	350,000	250,000
2	Daily Room / Bed limit per Insured	Private Room	Private Room	Semi Private Room	General Ward / Room
3	Maternity Limits for Normal Delivery / Forceps	50,000	30,000	25,000	20,000
4	Maternity Limits for C-Section / Multiple Births	80,000	45,000	40,000	30,000
5	Out-Patient Reimbursement per Family per Annum	35,000	20,000	15,000	12,000

BREAK UP OF LIVES COVERED:-

STRENGTH	PLAN A	PLAN B	PLAN C	PLAN D	TOTAL
EMPLOYEES	38	324	772	1090	2224
SPOUSES	33	271	503	777	1584
CHILDREN	65	566	809	1927	3367
PARENTS	27	354	1070	1402	2853
TOTAL	163	1515	3154	5196	10028

BENEFITS COVERED UNDER HOSPITALIZATION / IPD

1. Daily Room & Board Charges.
2. Miscellaneous Hospital Services and Supplies. Drugs, Dressings, Prescribed Medicines, Laboratory Examinations, Physiotherapy, intravenous injections & solutions, administration of blood and blood plasma including cost and any other fluids administered during surgery.
3. Emergency Room treatment for Accidental and Non-Accidental emergencies.
4. Doctor's visits. (Consultant, Specialist, etc.)
5. Surgical Operation Charges.
6. Local Ambulance Charges.
7. Pre-Post Hospitalization cover including Diagnostic Tests, Consultation Charges & prescribed Medicines within 30 days prior to or after Hospitalization.
8. ICU and Operation Theatre Charges.
9. Specialized Investigations & Day Care Surgeries. Dialysis, MRI, CT Scan, Thallium Scan, Angiography, `Cataract, Endoscopy, Echo, Treatment for Fractures, Lacerated wounds, Emergency Dental Treatment due to accidental injuries, Day Care surgical Charges including medicines and investigations.
10. Psychiatric Treatments.
11. Congenital Birth Defects.
12. Interferoherapy of Hepatitis 'B' and 'C'.
13. Maternity related complications.
14. Radiotherapy and Chemotherapy.

BENEFITS COVERED UNDER MATERNITY:-

1. Daily Room & Board Charges / Labor Rom Charges.
2. Ante-Natal Care such as Ultrasound scans, Lab Tests and examinations.
3. Hospital Charges & Obstetricians Fee for Childbirth.
4. Midwife Charges if delivery takes place at home.
5. Operation Theatre /Physician's /Surgeon's Charges.
6. Prescribed Medical Supplies & Services during Hospitalization.
7. Anesthesia Charges.
8. Blood Transfusion including Cost of Blood.
9. ICU Charges.
10. Baby Nursing Care while the Mother is confined to the Hospital.
11. Circumcision Charges of Newborn Baby Boys.
12. Post- natal Care immediately following childbirth such as Stitches, Follow up Visits & Prescribed Medicines.
13. Secondary Conditions brought about by Pregnancy such as Backache, High BP, Vaginal Bleeding, Nausea & Vomiting etc requiring Hospitalization.
14. In the event of D&C, Normal delivery benefits as mentioned in Benefits Schedule.

BENEFITS COVERED UNDER OPD:-

1. Physician / Consultant's fees for consultations.
2. Psychiatrists and Psychologist's Fee for Psychiatric Treatment.
3. Prescribed Drugs and Dressings.
4. Pathology, Radiology and Diagnostic Tests, X-rays & Ultrasounds.
5. Vaccinations.
6. Out-Patient Surgical Operations.
7. Wellness Mammogram, PAP Smear, Prostate Cancer Screening or Colon Cancer Screening.

8. Dental Treatment including Extractions Teeth, Root Canaling or Caping or Similar Treatment.
9. Accident Related Dental Treatment.
10. Costs for Treatment by Therapists and Complementary Medicine Practitioners.
11. Declared / Undeclared Pre-Existing Conditions.
12. Coverage / Treatment from any Hospital / Clinic of the Patient's Choice.

- **For TB Patients:**

It is very difficult for TB patients to do their normal jobs because of their health condition and the precautionary measures to safe other people from getting the disease. Since the treatment of Tuberculosis requires a longer period of time, so such patients who have financial responsibilities of their family, may undergo financial and mental stress. To resolve this problem some vocational training programs have specially been designed and introduced to engage regular TB patients, while undergoing treatment for at least 9 months, so as to engage them mentally and simultaneously help them to earn daily-living.