

Report on

Biennial Performance

2008-09

February 2009



**World Health
Organization**



**Government
of Pakistan**

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Abbreviations

AEFI:	Adverse Events Following Immunization	AFP:	Acute flaccid paralysis
AIDS:	Acquired Immuno Deficiency Syndrome	AJK:	Azad Jammu and Kashmir
APW:	Agreements for Performance of Work	ARI:	Acute Respiratory Tract Infection(s)
ART:	Atraumatic Restorative Treatment	BDN:	Basic Development Needs
BHU:	Basic Health Unit	BPD:	Biological Production Division
CAH:	Child and Adolescent Health	CBA:	Child Bearing Age
CBO:	Community Based Organization	CBR:	Community Based Rehabilitation
CCA:	Common Country Assessment	CCHF:	Congo Crimean Hemorrhagic Fever
CCM:	Country Coordinating Mechanism	CCS:	Country Cooperation Strategy:
CDD:	Control of Diarrheal Disease	CEHA:	Centre for Environmental Health Activities
CME:	Continuing Medical Education	CMH:	Commission on Macroeconomics and Health
CNS:	Central Nervous System	CDC:	Centers for Disease Control
COME:	Community Oriented Medical Education	CVD:	Cardiovascular Disease
DAO:	Delivering as ONE	DEWS:	Disease Early Warning System
DCO:	District Coordinating Officer	DG:	Director General
DFID:	Department for International Development	DPT:	Diphtheria, Pertussis, Tetanus
DOTS:	Directly Observed Treatment, Short Course	DTPS:	District Team Problem Solving Approach
DRF:	Debt Relief Fund	EIC:	Epidemic Investigation Cell
EDO:	Executive District Officer	EPI:	Expanded Programme on Immunization
EMRO:	Eastern Mediterranean Regional Office	FGD:	Focus Group Discussion
FATA:	Federally Administered Tribal Areas	FMTs:	Female Medical Technician
FLCF:	First Level Care Facility	GAVI:	Global Alliance for Vaccines and Immunization
FP:	Family Planning	GFATM:	Global Fund to Fight AIDS, TB and Malaria
GDP:	Gross Domestic Product	GLP:	Good Laboratory Practice(s)
GIS:	Geographical Information System	GoP:	Government of Pakistan
GMP:	Good Manufacturing Practice(s)	HBV:	Hepatitis B virus
GSP:	Good Storage Practice(s)	HRD:	Human Resource Development
HCV:	Hepatitis C virus	HIV:	Human Immunodeficiency Virus
HFA:	Health for All	HOPE:	Health Oriented Preventive Education
HMIS:	Health Management Information System	IAPV:	International Agency for Prevention of Blindness
HQ:	Headquarters	IEC:	Information Education and Communication
ICT:	Islamabad Capital Territory	IH:	International Health
IFRCs:	International Federation of Red Cross Societies	IMCI:	Integrated Management of Childhood Illness
IHD:	Ischemic Heart Disease	IT:	Information Technology
IMR:	Infant Mortality Rate	JPMC:	Jinnah Postgraduate Medical Center
JICA:	Japan International Cooperation Agency	LHV:	Lady Health Visitor
JPRM:	Joint Programme Review Mission	MCH:	Maternal and Child Health
LHW:	Lady Health Worker	MoH:	Ministry of Health
MO:	Medical Officer	MoU:	Memorandum of Understanding
MoPW:	Ministry of Population Welfare	NACP:	National AIDS Control Program
MPH:	Master of Public Health	NCHD:	National Commission for Human Development
NCD:	Non-Communicable Diseases	NDP:	National Drug Policy
NCMH:	National Commission on Macroeconomics and Health	NGO:	Non-Governmental Organization
NEDL:	National Essential Drugs List	NHPU:	National Health Policy Unit
NHP:	National Health Policy	NIPS:	National Institute of Population Studies
NIH:	National Institute of Health	NNT:	Neonatal Tetanus
NMCP:	National Malaria Control Program	PC1:	Planning Commission Form # 1
NSL:	Non Sabin Like	PEM:	Protein Energy Malnutrition
PEI:	Polio Eradication Initiative	PHC:	Primary Health Care
PGR:	Population Growth Rate	PIMS:	Pakistan Institute of Medical Sciences
PIHS:	Pakistan Integrated Household Survey	PMRC:	Pakistan Medical Research Council
PMDC:	Pakistan Medical and Dental Council	PRCS:	Pakistan Red Crescent Society
PoA:	Plan of Action	PTV:	Pakistan Television
PPHI:	People's Primary Healthcare Initiative	RBM:	Roll Back Malaria
PRSP:	Poverty Reduction Strategy Paper	RHC:	Rural Health Center
QoL:	Quality of Life	SAARC:	South Asian Association for Regional Cooperation
RD:	Regional Director	SIA:	Supplemental Immunization Activities
RTI:	Reproductive Health Infection	STD:	Sexually Transmitted Disease
SARS:	Severe Acute Respiratory Syndrome	TB:	Tuberculosis
NID:	National Immunization Day	TFI:	Tobacco Free Initiative
TAG:	Technical Advisory Group	TSA:	Technical Services Agreement
TBA:	Traditional Birth Attendant	UN:	United Nations
TRA:	Trachoma Rapid Assessment	UNDP:	United Nations Development Program
TT:	Tetanus Toxoid	UNHCR:	United Nations High Commissioner for Refugees
UNDAF:	United Nations Development Assistance Framework	USAID:	United States Agency for International Development
UNFPA:	United Nations Family Planning Association	VDC:	Village Development Committee
UNICEF:	United Nations Children's Fund	WFP:	World Food Program
USD:	United States Dollar(s)		
WB:	World Bank		

Foreword

World Health Organization Country Office in Pakistan has provided a wide range of valuable technical support to the Government of Pakistan since its establishment in 1960. The technical & programmatic support to the Ministry of Health, provincial departments of health and other areas of health sector comprised a wide spectrum of health-related activities ranging from policy, strategic planning, health system & community development, health promotion and communicable disease control issues. Working within the overall framework of the WHO mandate and fully in line with MoH priorities and country needs, joint collaborative programmes are developed for each biennium to outline the specific areas of cooperation.

The major outcomes of the biennium 2008–09, include technical support to key programs such as Health System Strengthening, Maternal Neonatal and Child Health, Expanded Programme on Immunization, Polio Eradication Initiative, Tuberculosis control using Directly Observed Treatment Short-course, HIV/AIDS, Roll Back Malaria, Prevention and control of Hepatitis, the National Programme for Family Planning and Primary Health Care, environmental health, emergency preparedness and response, community-based initiatives, and non-communicable disease prevention and control. During the biennium, Health System Strengthening and Policy Unit with its provincial offshoots was established, which provided substantial support to the Ministry of Health in the area of policy and strategic planning. During the biennium a number of policy initiatives were implemented including the draft new national Health policy, draft policy on health research, national strategy for NCD and notification of national telemedicine & eHealth Committee. A country wide survey of HRH was also undertaken, the results of which will be used for policy formulation.

Pakistan is one of eight UN Member States selected in 2007 to pilot the UN reform in order to “Deliver as One” where by 18 UN agencies will share and synergize the rich diversity, know-how and experience to maximize the benefit of the people of Pakistan. The UN Reform has thus afforded Pakistan, a unique opportunity to work better together to 'Deliver as One' to address the most pressing developmental issues facing Pakistan in health, education, environment, poverty, and disaster management.

We take pride in asserting that this vital alliance between the World Health Organization and the Ministry of Health has gone a long way in addressing strategic health issues through our mutually shared vision, and we hope this will continue to prosper in the years to come.

Professor Rashid Jooma
Director General Health

Khalif Bile Mohamud
WHO Representative

Preface and Acknowledgements

The World Health Organization and Government of Pakistan have a long and historic collaborative relationship to technically assist the country in public health promotion. As during the past, this collaborative partnership has resulted in the attainment of extremely important milestone during the biennium 2008-09 in the field of public health.

The vision and guidance provided by the Federal Health Minister, provincial Health Ministers, Federal Secretary Health, provincial Health Secretaries, Federal Director General Health, and the Deputy Director General (International Health) has been highly instrumental in achieving the objectives laid down for the biennium covering the years 2008 and 2009. Furthermore, it was the leadership provided by the National Programme Coordinators of the joint programs along with efforts from their dedicated teams, which resulted in the realization of the objectives as demonstrated by this report

This report is based on the analysis of the WHO contribution for the biennium 2008-09 within the overall framework of the United National Development Assistance Framework (UNDAF) and the Country Cooperation Strategy (CCS) to strengthen health care in Pakistan. The report discusses the directions of WHO policy areas and collaborative programmes with particular reference to their objectives and accomplishments for the biennium. The information provided in this report was gathered through review of relevant MoH and WHO documents in addition to in-depth discussions with key policy-makers and programme personnel.

As in the case of previous biennium, WHO technical and secretarial staff in the Country Office and provincial sub-offices worked closely with their government counterparts in fulfilling their commitment to strengthening health services in Pakistan and other joint ventures. The collaboration of the Ministry of Health and WHO in preparing this report also reflects the cordial relationship existing between the two key partners aimed at the common goal of improving the health status of the people of Pakistan. An added opportunity provided during the biennium was through the UN Reform “Delivering as One” initiative that brought together 14 UN agencies to make coordinated efforts for the Health and Population sectors.

WHO looks forward to building on the experience gained in this biennium for further strengthening its role in the new biennium and working closely with the Ministry of Health towards the achievement of the Millennium Development Goals and the objectives laid down in the Health and Population Joint Program of the One UN..

In addition to efforts of colleagues in the Federal Ministry of Health and provincial Departments of Health, I would like to particularly appreciate the work of Dr Zulfiqar Khan, Dr Ghulam Nabi Kazi of the WHO Country Office in addition to a number of WHO technical professionals for their significant contribution in the preparation of this report. I would also like to acknowledge with profound thanks the efforts of all those colleagues who were directly or indirectly involved in the documentation of these significant landmarks.

**Khalif Bile Mohamud M.D., Ph. D.,
WHO Country Representative in Pakistan**

Executive Summary

World Health Organization Pakistan has been providing country-level technical cooperation to the Government of Pakistan since 1960 with the establishment of the WHO Country Office. WHO has been engaged in joint collaboration with different stakeholders, particularly the Ministry of Health, with a view to reduce the excess of morbidity and mortality through strengthening of the health system and creating an enabling environment based on equity and the attainment by all of the highest possible level of health.

WHO assists the Government of Pakistan (GoP), within the framework of a six-year policy document i.e. the Country Cooperation Strategy (CCS) and in the context of One UN reform. The latest CCS (2005-10) document includes areas of technical support to key programmes areas such as the Expanded Programme on Immunization (EPI) / Polio Eradication Initiative (PEI), National programme for MNCH, Tuberculosis Directly Observed Treatment Short-course (TB DOTS), Roll Back Malaria (RBM), the National Programme for Family Planning & Primary Health Care (NP for FP & PHC), National Programme for Prevention & Control of Hepatitis, Health System Strengthening, Environmental health, Tobacco control, advocacy and emergency preparedness and response.

Based on the latest global policies of WHO and requirements of the Ministry of Health, CCS is translated into more practical programmatic manifestations in the form of three successive two-years Joint Programmes. The current report summarizes the activities and achievements with reference to the set objectives of all the collaborative programmes undertaken as part of JPRM 2008-09 and outside JPRM as additional WHO support from HQ or EMRO.

Policy & programmatic Support

WHO continued its policy and strategic support to country's Health Sector during the biennium 2008-09 to revise and develop the new health policy 2009. The new National Health policy aims to improve health status of people of Pakistan by achieving six policy objectives that will also make progress towards health related MDGs. The six key areas are; access to essential health services, reduction in the burden of diseases especially among vulnerable segments of population; Protecting to the poor and under privileged population subgroups against catastrophic health expenditures and risk factors, Strengthening health system, Strengthening stewardship functions in the sector to ensure service provision, equitable financing and promoting accountability and Improving evidence based policy making and strategic planning in the health sector. Learning lessons from weaknesses & failure of lack of implementation mechanism, lack of monitoring arrangements, overstepping on provincial intervention and failure of accountability system in National Health Policy 2001, design of national Health Policy 2009 is based on evidence having all focuses on efficient M&E mechanism and accountability arrangements in consultation of provincial counterparts and other stakeholders of policy designing.

WHO supported the establishment of Health System Support & Policy Unit (HSSPU) through GAVI HSS window which is envisioned to provide technical guidance, strategic direction & evidence based information for designing & formulation of health policies in consultation with provinces & other federating units, federal institution involved in policy designing process, donor agencies, academia, philanthropist & non-for-profit organization and private sector at large. In addition to NHP 2009, WHO also supported the development of National Policy & Strategic Frame work on Health Research, National Strategy for control of Non-Communicable Diseases and National Policy & Strategic Frame work on Telemedicine & eHealth.

WHO also supported MoH through GWFA funding to move one step closer to the development of a long awaited National Policy on Human Resource Development, because one of the most critical assets of healthcare system is Human Resource in Health which gauge strategic challenge toward health sector in Pakistan. A countrywide study of health professional in different categories of specialist doctors, medical officers, midwifery aids & allied professional focusing on magnitude, distribution, job description, remuneration status, job satisfaction, workout put etc was conducted. After an elaborative consultation & designing of questionnaires, stratification of sample size, data collection & compilation of information & analysis, the draft report has been disseminated in a workshop on 29th December, 2009. Final report shall be ready soon. The results of this study would form the basis of policy formulation for human resource development in Pakistan.

The health relief response to the IDPs was swift and efficient, despite the massive damage to the existing health care infra structure in Swat. The Federal Ministry of Health in collaboration with WHO and other partners performed a colossal job in mobilizing adequate resources to operationalize the necessary emergency health care network. World Health Organization has played a prominent role in guiding and supporting the complex operations in the field. Partners within the Health Cluster demonstrated a high level of capacity and competence in their rapid and multifaceted response to the daunting and hazardous task of relief work.

The other major outcomes of the biennium include training of 18,122 LHWs on Routine EPI in 38 districts across Pakistan; a strategy which focuses on increasing the routine EPI coverage by training nearly 100,000 Lady Health Workers on immunization, with a view to achieve at least more than 70% immunization coverage for children under two years of age. The joint collaboration during the biennium contributed to poverty reduction, respond better to health emergencies and epidemics, detecting disease outbreaks in their early stages and expansion of the BDN programme and its ownership by the provincial and district governments. WHO contribution aimed at reducing the incidence and prevalence of tuberculosis and malaria, the two diseases of great public health burden in Pakistan, by using the WHO strategies of TB-DOTS and RBM. WHO was actively engaged with other partners in maintaining the current status of HIV AIDS, blood safety and prevention and control of Hepatitis. WHO was able to assist the country in consolidating and enhancing the Polio Eradication Initiative, thus raising hopes for finally eliminating the transmission of wild poliovirus from Pakistan.

In order to achieve the targets set for MDG 4 and 5, a National programme of MNCH (worth PKR 20 billion) was approved by the Government of Pakistan in March 2007. During biennium 2008-09, WHO actively engaged in supporting the MoH and MoP to make the national MNCH programme operational and helped in signing a memorandum of understanding (MoU) between them to ensure functional integration of RH/FP in December 2008. WHO helped GoP to get support from GAVI HSS, NPPI and other donors for the implementation of various components of MNCH like capacity building, development of guidelines and manuals, Emergency Surgical Skills with focus on Maternal, Newborn & Child Health, Adaptation of MPS/SPP Manuals, Provincial and district Support to MNCH, expansion of Integrated Management of Childhood Illness, inclusion of IMCI in-service Trainings, inclusion of zinc in LHWs kit and inclusion of IMCI in Pre Service Curricula.

Support in Operational Research

WHO promotes evidence-based decision-making in health development through operational research and particularly assisted the Ministry of Health in this area by funding a number of research studies. Based on the specific needs of different institutions or programs, these studies covered areas including prevention and control of communicable & noncommunicable diseases, health protection and

promotion, health education, public-private partnership and behavioral change communication for disease control and healthcare delivery.

Relationship with Media

WHO encourages partnership with media particularly in all aspects of health promotion and development of healthy lifestyles. During the last biennium, WHO was successful in widely disseminating health messages through the active involvement of the media. The World Health Days were also observed with meaningful activities and large participation of the media.

Financial Summary

The total regular budget allocation for the biennium 2008-09 was US\$ 4.559 millions. In addition, extra-budgetary support was provided to the tune of US \$ 94.069 millions. The major portion of this extra-budgetary support was directed towards polio eradication activities, tuberculosis control, BDN expansion, Human Resource development, MNCH, Health system strengthening. The JPRM budgetary allocations were fully utilized.

“Delivering as One” - UN Reform

World Health Organization Pakistan works closely with the MoH and is one of the permanent co-chair in Health and Population TWG, and is also represented on all the four remaining TWGs, including those on environment, education, disaster risk management, and agriculture, rural development and poverty. WHO has re-aligned its technical support which would help the UN reform process in Pakistan to “Deliver as One” where by 18 UN agencies will share and synergize the rich diversity, know-how and experience to maximize the benefit for the people of Pakistan. The UN Reform has thus afforded Pakistan, a unique opportunity to work better together to 'Deliver as One' to address the most pressing developmental issues facing Pakistan in health, education, environment, poverty, and disaster management.

Conclusion

The accomplishments of the 2008-09 biennium highlighted above resulted from the creation of an exemplary conducive environment provided by the Government of Pakistan, particularly the Federal Ministry of Health and provincial Departments of Health. These achievements indeed reflect a well-managed collaboration and an attitude of cooperation and responsiveness of the partners involved, which set a valuable precedent and firm foundation for partnership-building in future joint activity.

***Note:** The statistics cited in this report come from the internal Joint Programme Collaboration and the Ministry of Health. In case a specific document reference is required, please feel to contact us on the e-mail address wr@pak.emro.who.int*

I. Introduction

The World Health Assembly is the supreme decision-making body for WHO. It generally meets in Geneva in May each year, and is attended by delegations from all 193 Member States. Its main function is to determine the policies of the Organization. The Health Assembly appoints the Director-General, supervises the financial policies of the Organization, and reviews and approves the Proposed programme budget. It similarly considers reports of the Executive Board, which it instructs in regard to matters upon which further action, study, investigation or report may be required.

The Executive Board is composed of 34 members technically qualified in the field of health. Members are elected for three-year terms. The main Board meeting, at which the agenda for the forthcoming Health Assembly is agreed upon and resolutions for forwarding to the Health Assembly are adopted, is held in January, with a second shorter meeting in May, immediately after the Health Assembly, for more administrative matters. The main functions of the Board are to give effect to the decisions and policies of the Health Assembly, to advise it and generally to facilitate its work.

The Secretariat of WHO is staffed by some 8000 health and other experts and support staff on fixed-term appointments, working at headquarters, in the six regional offices, and in countries.

The Organization is headed by the Director-General, who is appointed by the Health Assembly on the nomination of the Executive Board.

World Health Organization technical cooperation in Pakistan was initiated in the early fifties, however, with the steady increase in health activities in the country the need for sustained WHO technical assistance was considered necessary, leading to the establishment of the WHO Country Office in Pakistan in 1959 at the request of the Government of Pakistan. The WHO Country Office is responsible for coordinating the WHO Global and Regional efforts to improve the health status of people of Pakistan in collaboration with MoH, the Ministry of Population Welfare (MoPW), other UN Agencies and international partners, NGOs (non-governmental organizations) and other government ministries and departments.

Global Strategic Directions and Priorities of WHO

The goal and strategic direction of WHO remains the attainment for all peoples of the highest possible level of health. To achieve this goal the commitment of the member states is reflected throughout the proposed **Medium Term Strategic Plan** for 2008-13, which provides the strategic direction for WHO for the six-year period. This direction is based on the global health agenda and core functions identified in the Eleventh General Programme of Work. WHO global health agenda is especially important, as it brings cohesion to the work of many partners implementing programmes within countries. The following global health priorities identified by member states are adequately addressed by WHO programme of work:

1. Implementing the International Health Regulations (2005) in order to respond rapidly to public health emergencies of international concern (including those caused by outbreaks of emerging and epidemic-prone diseases), building on eradication of poliomyelitis to develop an effective surveillance and response infrastructure
2. Addressing the epidemic of chronic noncommunicable diseases, with an emphasis on measures to reduce risk factors such as tobacco consumption, improper diet, and physical inactivity reducing maternal mortality, by scaling up activities aimed at universal access to, and coverage with, effective interventions, and strengthening health services
3. Improving health systems, focusing on human resources, financing and health information.
4. Improving performance and building and managing partnerships to achieve the best results in countries.

WHO Core Functions

The core functions of WHO will guide the work of the Secretariat, influence approaches for achieving the strategic objectives, and provide a framework for assuring consistency and output at global, regional and country levels. The core functions are: providing leadership on matters critical to health and engaging in partnerships where joint action is needed

1. shaping the **research** agenda, and stimulating the generation, dissemination and application of valuable knowledge
2. setting **norms and standards**, and promoting and monitoring their implementation
3. articulating ethical and evidence-based **policy options**
4. providing **technical support**, catalysing change and building sustainable institutional capacity
5. **Monitoring** the health situation and assessing health trends.

WHO 13 Strategic Objectives

Expected achievements over the period of the Medium-term strategic plan reflecting the Director-General's agenda for action, notably health development and security, systems and evidence, partnerships and performance, are described in **13 strategic objectives** set out below. They provide clear, measurable and budgeted expected results for the Organization. They also promote collaboration across disease-specific programmes by capturing the multiple links among the determinants of health and health outcomes, policies, systems and technologies:

1. To reduce the health, social and economic burden of communicable diseases
2. To combat HIV/AIDS, tuberculosis and malaria
3. To prevent and reduce disease, disability and premature death from chronic noncommunicable conditions, mental disorders, violence and injuries
4. To reduce morbidity and mortality and improve health during key stages of life, including pregnancy, childbirth, the neonatal period, childhood and adolescence, and improve sexual and reproductive health and promote active and healthy ageing for all individuals
5. To reduce the health consequences of emergencies, disasters, crises and conflicts, and minimize their social and economic impact
6. To promote health and development, and prevent or reduce risk factors for health conditions associated with use of tobacco, alcohol, drugs and other psychoactive substances, unhealthy diets, physical inactivity and unsafe sex
7. To address the underlying social and economic determinants of health through policies and programmes that enhance health equity and integrate pro-poor, gender-responsive, and human rights-based approaches
8. To promote a healthier environment, intensify primary prevention and influence public policies in all sectors so as to address the root causes of environmental threats to health
9. To improve nutrition, food safety and food security, throughout the life-course, and in support of public health and sustainable development
10. To improve health services through better governance, financing, staffing and management informed by reliable and accessible evidence and research
11. To ensure improved access, quality and use of medical products and technologies
12. To provide leadership, strengthen governance and foster partnership and collaboration with countries, the United Nations system and other stakeholders in order to fulfil the mandate of WHO in advancing the global health agenda as set out in the Eleventh General Programme of Work
13. To develop and sustain WHO as a flexible, learning organization, enabling it to carry out its mandate more efficiently and effectively.

Regional Priority Areas

The Eastern Mediterranean (EM) Region has the demographic profile of the developing region. It is a

low middle income region. Poverty and unemployment affects a large number of people in the Region. Communicable diseases are still prevalent in the least developed countries and TB, Malaria and HIV/AIDS are major killers. A number of countries in the region are in a state of conflict and emergency. Malnutrition is still a significant problem in economically less fortunate countries. The water scarcity is a Region-wide challenge. Also, the lack of adequate safe water supply and proper sanitation are major health hindrances in the least developed countries, which constitute a large percentage of the population in the Region. Similarly, the rapid urbanization and increase in car ownership have resulted in severe air pollution in major cities of the Region. The solid wastes management, particularly hazardous and medical wastes, is particularly weak in a significant number of countries of the Region.

An epidemiological shift is being witnessed in the EM Region. Currently, due to changes in lifestyles the non-communicable diseases constitute 40% of the disease burden. It is projected that by the year 2020 the share of burden for non-communicable diseases will increase to 60% which is creating a double burden, of both communicable and non communicable diseases. Maternal mortality is still unacceptably high in some countries. The average maternal mortality ratio for the Region in 2001 was as high as 330 per 100,000 live births, while over 60% of infant deaths occur in the neonatal period in most countries. Food borne diseases are also on the rise and represent a major public health challenge. The rapid change in lifestyles of many countries is having a clear impact on stress and mental health-related conditions.

The health system including governance, quality assurance, service delivery, health regulation and medical technologies and medicine need major strengthening in almost all countries. The health financing is a major emerging issue in the Region. In lower income countries most of the expenses are borne by people. The middle-income countries have a mix of private and public sector. In these countries in some instances there is a surplus of trained manpower, such as physicians. In high-income countries the major share of the health expenses is borne by governments. The health information system in almost all countries needs to be strengthened. Nursing picture is rather gloomy both in terms of adequate numbers in poor countries and their career structure.

In light of the above situation, EMRO has identified certain priority areas for its collaboration with the member states. These were spelled out in the program budget for the period 2008 -09 which was endorsed by the EM Regional Committee at its 54th session held in October 2007 (**EM/RC54/R1**). The priorities include items such as:

1. Promotion and development of healthy life styles through programs such as Tobacco Free Initiative, healthy communities etc;
2. Strengthening national initiatives to improve nutritional status and environmental health;
3. Addressing underlying determinants of health and poverty as essential to ensuring sustainable development and health improvements in the long term;
4. Community based initiatives;
5. Efforts aimed at facilitating the achievement of the Millennium Development Goals, integrated control of communicable and non-communicable diseases;
6. Strengthening surveillance;
7. Promoting the use of evidence based policies and strategies;

8. Development of important components of stewardship function;
9. Strengthening decentralization of health systems;
10. Improving the quality of care in health service delivery;
11. Development of human resources is a high priority for the regional collaborative program.

Country Plans

In response to new developments in the international health architecture with more global attention and resources being focused on countries, WHO is further increasing its attention to country-level action as seen through the Eleventh General Programme of Work. In addition, the WHO Medium-Term Strategic Plan (MTSP) has committed increased resources to countries for better results. This roadmap specifies the priority actions and global and regional milestones required to achieve this aim. In addition, it highlights key assumptions and challenges that will influence the level of implementation of some priority actions. The existing monitoring mechanisms will be used to report and monitor progress in achieving the priority actions under the six components outlined in the roadmap.

WHO and GoP are working together synergistically to achieve better health status of the people of Pakistan. For this purpose GoP and WHO developed a joint **Country Cooperation Strategy (CCS)** for six years (2005-2010) which defines the broad framework for WHO assistance. The priority directions for WHO's technical cooperation with the Government of Pakistan were identified through an intense process of analysis and consultation. The strategic directions take into account; the national goal of the Government of Pakistan to provide adequate health coverage to all people, the desire of the senior leadership in MOH for a rapid strengthening of the health sector. The last CCS which was formed the basis for JPRM 2008 2009 focuses on the following key components:

- Health policy and system development
- Communicable disease control
- Improving the health of women and children
- Non-communicable diseases
- Addressing the social determinants of health
- Emergency Preparedness and Response
- Enhancing partnerships, resource mobilization and coordination

This joint collaboration mobilized all necessary technical support to generate maximum benefits for attaining the jointly formulated strategic goals of health sector development in Pakistan. This report provides an overview of this collaboration for the biennium 2008 2009.

II. BIENNIAL PROGRAMMATIC SUPPORT

Several priority programmes are functioning under the Federal Ministry of Health in order to address certain specific issues, with the active collaboration of the World Health Organization (WHO), which is providing technical support to these programmes in an effort to bring about a significant difference in mortality and morbidity trends. As in the case of previous biennia, this collaborative partnership was guided by a 2-year plan of cooperation covering 2008 - 09 with a set of agreed tasks and activities for joint action. WHO support is essentially aimed at giving an impetus to the national development efforts. *A brief description of technical assistance provided to all the twenty nine (29) WHO GoP collaborative programs categorized under four WHO strategic & policy areas; namely Health Policy and Strategic planning, Health System and Community Development, Health Promotion and Protection and Prevention and control of communicable diseases is given below.*

A. Health Policy and Strategic Planning

1.1 Health System Strengthening:

Social indicators have not kept pace with the rapid economic growth in recent years. The health profile of Pakistan continues to be characterized with high population growth rate, high infant and child mortality rates, high maternal mortality ratio, high burden of communicable diseases, alongside a growing prevalence of non communicable diseases. The high maternal mortality is attributed mainly to the high fertility rates, low rates of births conducted by skilled birth attendants, malnutrition and insufficient access to emergency obstetric care services, while in children diarrhea, acute respiratory illness and vaccine preventable diseases account for two thirds of the infant and under-5 child mortality. These factors act as barriers towards attaining the targets of "Health for All" and the Millennium Development Goals (MDGs). A reform process focusing on priority health needs is therefore underway to make the health system more efficient and capable to attain the desired health gain in Pakistan, supported by strong political commitment and substantial resource allocations.

The Ministry of Health is pursuing the goal laid down in the Alma Ata declaration in support of the Health-for-All philosophy, as evinced by the National Health Policy of 2001, Poverty Reduction Strategy Paper-II, Mid-Term Development Framework, Vision 2030 and other policy documents. In support of this, the public health sector investments have been gradually rising over the last five years. During this period, the Public Sector Development Programme allocations and investments for prevention, promotion and disease control have increased manifold. The Health Sector has yet to confront several challenges such as inadequately trained human resources, improving access to quality services, managerial and organizational problems, along with the adverse impact of global trade agreements on health.

A number of new initiatives have been launched, which place a greater emphasis on strengthening of health systems. While the devolution initiative opened new avenues for potential improvement in health service delivery at the district-level, a number of new community-based models are highly promising and can substantially impact health outcomes at the grassroots level if up-scaled in light of the experience gained. Such policy changes in the

health sector entail effective strategic and operational planning, with capacity-building for policy development and planning at all tiers of the health system. Recent initiatives to restructure the Ministry of Health and strengthen the National Health Policy Unit reflect the governmental commitment to have evidence-based policies backed up with swift implementation in the pursuit towards the MDGs. Health Sector Reform is also being undertaken at the provincial level.

These initiatives require, however, a substantial enhancement in resource allocation at the macro level coupled with development of cost-effective interventions and proper monitoring and evaluation of development schemes at the implementation level. Recent strategies for involvement of the private health sector in the delivery of health services are likely to be successful if based on a package of essential primary health care (PHC) services, ensuring minimal quality standards, use of appropriate technology and practicing professional ethics.

Main Objectives

- To strengthen capacity for evidence based policy development, and strategic planning at the federal and provincial levels
- To strengthen the district health system
- Integrate health in socio-economic development and support development of pro-poor health policies in line with the poverty reduction strategy of the government at the federal/provincial level and for district planning at the local level
- To improve coordination at national and international level; for containing epidemics of emerging diseases and implementing International Health Regulations
- To improve the efficiency of JPRM implementation
- To improve the capacity and functioning of the International Health section of the MoH in planning, coordination, monitoring and evaluation of the technical assistance provided by international agencies including WHO

Activities and Outputs

During the biennium 2008-09, WHO provided substantial technical support to bring about efficient and effective implementation of JPRM, and strengthening of health systems in Pakistan at federal, provincial and district levels in order to address issues such as health financing, donor coordination, and monitoring and evaluation of national programmes. The major supported activities and achievements during the biennium are as follows:

1. Building human Resource Capacity & Health Workforce

- **Human Resource Assessment In Pakistan:** One of the most critical assets of healthcare as identified by World Health Report 2000 Human Resource in Health gauge strategic challenge toward health sector in Pakistan. A countrywide study of health professional in different categories of specialist doctors, medical officers, midwifery aids & allied professional focusing on magnitude, distribution, job description, remuneration status, job satisfaction, workout put etc was conducted. After an elaborative consultation & designing of questionnaires, stratification of sample size, data collection & compilation of information & analysis, the draft report has been disseminated in a workshop on 29th December, 2009. Final report shall be ready soon.
- **Continuing Professional development:** Enhancement of skills through updated information & knowledge is the minimum requirement of any profession where health sector is no exception. A workshop was held in the PMDC on August 3, 2009 participated by 50 participants

from all over the country & recommended series of suggestion to be taken care in the coming years.

- **Capacity building of Lady Health Workers (LHWs):** Involvement of LHWS in Routine EPI: The GAVI HSS project focuses sharply on increasing the routine EPI coverage by training the nearly 100,000 strong cadre of Lady Health Workers on immunization, with a view to achieve at least more than 70% immunization coverage for children under two years of age. This activity alone has the potential to address the stagnant and poor child health indicators, with particular reference to the low national Routine EPI coverage in Pakistan (47 %, PDHS, 2007). The first batch of 1955 LHWs in three districts of Punjab has been fully trained and able to vaccinate children as of December 2009, while all the remaining batches will be trained during the first half of 2010 and all will be operational by Oct 2010. All the facility level trainings (LHWs) in all the districts are expected to conclude by October 2010. This important training activity has fostered an integrated planning and coordination exercise amongst the three stakeholders, namely LHWs Program, EPI Program and WHO.
- **Training on Zinc Supplementation:** High prevalence of childhood morbidity and preventable mortality is a source of major concern in Pakistan, despite some improvement over the past decade. Diarrheal diseases are a major contributor to the childhood mortality and account for more than 19 % of total deaths amongst children in Pakistan. Zinc plays an important role in reducing the risk, severity and duration of diarrheal illnesses. In this context, Zinc supplementation through the LHWs, had been approved by the Ministry of Health. Through GAVI-HSS support, 4.2 million bottles of Zinc Sulphate syrup (20mg/ 5ml in 60 ml bottles), worth Rs.182 million have been supplied to the program for over 95,000 Lady Health Workers as of June 2009. The activity has been completed in a record time with orientation / training of 92,693 LHWS from Aug to Dec 2009 on the administration of Zinc Sulphate to children during diarrheal episodes.
- **Training on LHWs MIS software:** Review and up gradation of LHW MIS software has been undertaken through GAVI HSS resources. The national orientation workshop was conducted in Dec 2009. A total of 3 workshops are planned for AJ&K (Muzaffarabad), FANA (Gilgit) and NWFP (Peshawar) across Pakistan. On completion of workshops a total of approx 50 managers and 60-65 data operators will be trained on the up graded LHWs MIS software.
- **Strengthening skills of health care providers in IMNCI and EmONC:** An adequate number of doctors, nurses and paramedical staff have been trained on the standard modules of Integrated Management of Childhood and Neonatal Illnesses (IMNCI) and Emergency Obstetric and Neonatal Care (EmONC). A total of 380 health care professionals and providers have been trained on IMNCI and EmONC protocols. By virtue of these trainings, over 350 health facilities will be able to deliver these services. Earlier, the modules on Pregnancy Complications, Newborn and Child Care (PCPNC) were finalized and printed for the proposed trainings. Introduction of IMNCI for pre-service trainings has also been provided through two orientation planning workshops. So far 27 medical universities/college, 10 paramedical institutes and 15 nursing institutes have been involved in pre service IMNCI towards sustainability of providing standard management protocols for Child Health.

2. Building National Capacity in Health System Financing:

Adequate funding, smooth flow of finances, their efficient utilization with accountable mechanism are the minimum requirement of any organizational work. Taking account of host of issues in health care financing required for its optimum function, HSSPU is collaborating mechanism with different institution for different kind of strategies. Following is the progress with in infancy stage of the project.

- **Costing of EHSP:** The Package considering medical technologies, infrastructure & its

maintenance, furniture & fixture, Staff & their CPD, drugs & logistics, referral linkages development, rationalization of capital & recurrent cost for direct & indirect costing analysis is under consultation for BHU, RHC, THQ/DHQ hospitals requiring annual funding & perspective finances over period of 5 years keeping in view the adjustment of regional variation between provinces.

- **Costing & Assessment of Cost-efficiency of EmOC:** NMNCH Program is being assisted by other development partners for establishment of quality EmOC services at DHQ/THQ level under different management mechanism. HSSPU is in the process of assessment of these interventions to guide M/o Health for fixture strategies with collection of information & their analysis regarding health man power & their trainings, requirements, equipments & drugs, logistics & mobility emphasizing on surveillance & supervision for M&E and thence utilization rate of services through unit cost estimates.
- **District Health Expenditure:** HSSPU is in the process of designing tools for district health & its adequacy, fragmentation in different component, accounting capacity, budget demand preparation & its capacity, utilization of generated revenue, estimation of financial management capacity and host of issues relating to district healthcare expenditure.
- **Analysis of NHA:** National Health Account under the auspices of Federal Bureau of Statistics is collecting various kind of information regarding expenditure incurred in health sector at national level. HSSPU is in the process of analyzing Data received from NHA for identification of expenditure pattern, trends, projection & estimation, adjustment & re-appropriation, effectiveness in financing & its efficiency, demand & allocation of budget, flow of finances and variation in per capita health expenditure estimation at district level.
- **Healthcare Financing-Social Protection:** HSSPU has coordinated series of meeting & workshops, assisted in situation analysis & policy option for Social Health Insurance under Social Protection.
- **Community Based Healthcare Financing:** HSSPU is in the process of development of modular approach of Community Healthcare Financing through sustained revenue generation capacity addressing not only support to communities at large but their contribution in district health system in particular.

3. National Health Policy 2009: Health System Strengthening Policy Unit is envisioned to technical guidance, strategic direction & evidence based information for designing & formulation of health policies in consultation with provinces & other federating units, federal institution involved in policy designing process, donor agencies, academia, philanthropist & non-for-profit organization and private sector at large. Learning lessons from weaknesses & failure of lack of implementation mechanism, lack of monitoring arrangements, overstepping on provincial intervention and failure of accountability system in National Health Policy 2001, design of national Health Policy 2009 is based on evidence having all focuses on efficient M&E mechanism and accountability arrangements in consultation of provincial counterparts and other stakeholders of policy designing..

Through a series of consultative process, NHP-2009 focuses on enhanced surveillance & supervisory arrangements for long-term strategic direction of commitment & sustainability required in achievements of MDGs & national targets bench marked for health sector in provision of quality care through mobilization of existing resources for poor & most vulnerable sect of the population i.e. children under five with much focus on infants & ladies in child bearing age for reduction of mortalities & morbidities, enhancement of life expectancy and Healthy life style.

Keeping in view the provincial autonomy & role of all stakeholders in health sector, draft NHP-2009 was consulted with provincial government under the aegis respective chief ministers & heads of federating units. NHP-2009, after finalization in the light of various suggestion & recommendation

made by different provinces & institutions, has been submitted to M/o Health and is awaiting presentation in Cabinet before formal approval & launching accordingly.

4. National Policy and strategic Frame work on Telemedicine & eHealth: WHO organized the first ever national meeting on eHealth in which all the key stakeholders participated and technical colleagues from EMRO also participated through video conferencing. One of the outcome of this meeting was establishment of National Committee on Telemedicine & eHealth, which is a very important body and is expected to guide all processes for the development and implementation of telemedicine and eHealth services in Pakistan. Therefore, its members have a huge responsibility to contribute to this national developmental cause. One of the important task for this committee is to steer the development of strategic plan, which is expected to provide a framework to guide decisions making and follow up actions for the organization of telemedicine & eHealth services in Pakistan. Another important area is the development of Legislative frame which will provide a legal back up for the organization and delivery of telemedicine and eHealth services in Pakistan.

5. The Health System Strengthening and Policy Unit (HSSPU): The Ministry of Health (MoH) requires pursuing a more strategic approach to Health System Strengthening in order to successfully manage investments from its development partners towards achievement of its health goals. Furthermore, technical capacity and expertise within the Ministry of Health and provincial Departments of Health needed urgent up scaling within domains such as health financing, monitoring and evaluation, and medical products and technologies, which are critical for a proper oversight and strategic planning for current and future interventions aimed at Health Systems Strengthening. WHO has been one of the three executing agencies in the GAVI HSS Project under implementation since 2008 in Pakistan was created with effect from 15th May 2009. Recruitment of technical staff including experts on Health Systems, Health Financing, Medical Technology and M&E, along with support staff for the Planning Wing of Ministry of Health was undertaken. WHO also provided the necessary logistics and office equipment. Ministry of Health appointed the Chief Policy Adviser of the HSSPU signifying its ownership for the new initiative. The unit is envisioned to provide technical and health policy guidance to the MoH through analysis of data from various information sources, operational research, interpretation of programmatic achievements and bottlenecks, and developing mechanisms to enhance the monitoring, supervisory and evaluation role of the MoH. The HSSPU is also coordinating and monitoring the implementation and progress of activities carried out through GAVI HSS. WHO is also assisting the Ministry in developing a PC-I to ensure long term sustainability of the HSSPU as an integral part of Ministry of Health.

6. Support to Ministry of Health and Provincial Health Departments through HSS officers: Five National Program Officers have been recruited by WHO; one at the national level and four at the provincial level to provide technical assistance to MoH / DoH in the implementation of the proposal and to strengthen HSS capacity. These officers have played a pivotal role in the implementation of the EPI and Zinc Sulphate trainings for Lady Health Workers, LHWs MIS software training, IMNCI and EmONC trainings for health care providers by organizing, monitoring and supervising these trainings at all the levels, national, provincial, district and facility. The Federal Secretary for Health has advised the Provincial Health Departments (PHD) for establishing HSSPU in the respective provinces for which technical support will be provided through the GAVI-HSS support and certain provinces have already responded by drawing up concept papers for the same.

7. Integration and collaboration towards GAVI HSS Implementation: The assignment of implementation responsibilities amongst Ministry of Health, WHO and UNICEF proved to be a viable mechanism for effective implementation and somewhat mitigated the commencement delays by carrying out activities expeditiously. Currently, most of the activities in the original work plan have

been initiated and have been completed by the end of December 2009. The HSSPU is also expected to institutionalize the process of results and evidence-based health systems delivery, and significantly enhance local capacity at the provincial and district tiers enabling them to independently carry out these functions. The implementation of GAVI HSS interventions through Ministry of Health, WHO and UNICEF has provided development partners an opportunity to align their strategies and programs within priorities outlined by the government. As the coordination role of the HSSPU is enhanced, information sharing and monitoring of progress is expected to become more effective and efficient.

8. Efficient and effective implementation of JPRM : WHO provided substantial technical support to bring about efficient and effective implementation of JPRM and strengthening of health systems at federal, provincial and district levels resulting in optimum utilization of the allocated funds.

9. Hospital Auditing and Quality Policy: WHO has taken the lead in rallying stakeholders around the concept of a National Policy Framework for Quality in Health Care, and developed a concept paper for submission to MoH. Two major federal hospitals were supported in introducing quality management, and an audit subsequently carried out recently. A number of stakeholders, notably the GTZ, have evinced their keen interest in introducing a transparent system of accreditation and certification.

1.2 Emergency Preparedness And Humanitarian Action (EHA)

The dynamics of difficulties facing Pakistan, in addition to various internal political/social turmoil and regional/external developments, encompass natural calamities in the shape of floods, earthquakes and cyclones etc. An earthquake of magnitude 6.4 jolted Balochistan province (districts Ziarat, Harnai and Pishin as well as some parts of the Zhob and Quetta districts) in south-western Pakistan on October 29, 2008. There were altogether 47 aftershocks ranging from 3.5 to 4.7 on the Richter scale in the first two days. 17,870 households were damaged in 226 villages of districts Pishin, Ziarat and Harnai, affecting a population of 133,758.

During the month of August 2008, Pakistan suffered a series of overlapping emergencies that have led to substantial internal displacement and left hundreds of thousands in urgent need of humanitarian assistance. Heavy monsoon rains in early August affected several parts of the country, especially the district of Peshawar in the NWFP and Rajanpur in Punjab Province. In Punjab, hill torrents flooded a number of areas in Rajanpur district, and Taunsa Tehsil (subdivision) of D.I. Khan district. Rains also caused the flooding of a local stream, the Thara Khur, which flows from Landi Kotal to Charsadda in NWFP. Villages in neighbouring Khyber Agency in the Federally Administered Tribal Areas (FATA) were also affected. These floods had badly affected the drinking water supply systems in these districts in NWFP. According to the Chief Secretary, 200,000 people (25,000 families) in 100 villages were affected by the flood.

The latest IDP crisis, however, is different in kind, whereby a very large internal migration has taken place and the causes are mainly the insurgency/ideological conflicts in various segments of society. Notwithstanding the causes of problem or debating its solutions, the current situation is a grave humanitarian crisis and merits essential remedial measures at priority.

There are multiple factors that put the health of the people in conflict affected areas (both who

are still living in the hosting districts and those who returned to their native districts) at high risk such as; poor living conditions, risk of communicable diseases and epidemics, physical and mental stress due to insecurity, exposure to extreme weather conditions, and inadequate health care services.

The poorly resourced public health care system in the conflict districts has suffered heavy damages (destruction of physical structure, equipment and displacement of human resource) and as a result, its capacity has further declined and fell short of addressing the health needs of the people. In the hosting districts, the public health system is still overburdened with the presence of remaining displaced populations from Malakand, Bajaur and other agencies and thus requires continuous support to meet the health care challenges in the conflict affected districts as well as those hosting IDPs. The emergency health response will have to cover the health needs of the IDPs, the early recovery phase of humanitarian actions as well as the potential outflow of new IDPs from the southern NWFP.

Achievements during the biennium:

1) Coordination of Emergency Health Operations:

During 2008-09, the Health Cluster has been operational at federal, provincial and district levels where around 40 partners are participating in the cluster activities. So far, more than 100 health cluster coordination meetings took place (60 at Peshawar and 45 at Islamabad).

- The Health Cluster, being co-chaired by the Ministry of Health (MoH)/Department of Health (DoH) and WHO, is operational at federal (weekly meeting at Islamabad) and provincial (weekly meeting at Peshawar) levels
- Health threats have been identified based on the rapid assessment of health systems conducted in the hosting districts

Health Cluster Strategy

The Health Cluster Strategy was formulated and approved with the following objectives:

- To direct the focus and efforts of health partners to the humanitarian response interventions, facilitate in the safe return of IDPs to “fit for return” zones, and actively participate in the implementation of the health sector early recovery and rehabilitation emerging needs as well as the longer term health sector reconstruction process
- To envisage the crisis as a chance to sustainably improve the local and provincial health systems during the recovery and reconstruction phases
- To promote the resource mobilization for the essential health needs and address the monetary shortfall of the health sector with the government and donor partners
- To implement emergency intervention by the health cluster partners in the light of neutrality, impartiality and humanitarian imperatives while substantiating the right to health as an overriding principle

Standard setting and operational guidelines

To ensure standardized package of health relief operation, WHO developed and approved operational standards of comprehensive Primary Health Care (PHC) to ensure the compliance of all partners with a threshold level of service coverage and quality. These include the

management of injuries from the conflict, treatment of common illnesses, EPI, emergency obstetric services, ante-natal care and post-natal care, provision of essential medicines and storage, psychosocial support and EPI to IDPs, returnees from affected population and host community.

Enhancing Health Cluster capacity

Based on the recommendations of the inter-cluster diagnostic mission, the global health cluster organized a mission to Pakistan (Health Cluster being the first one to respond to the recommendations).

2) Health Assessments:

Since 2008, Emergency Humanitarian and Action (EHA) World Health Organization (WHO) Pakistan has effectively conducted assessments of the health facilities in the earthquake of Balochistan 2008 (Pishin and Ziarat), floods in Punjab 2008 (Rajanpur), flash floods in NWFP 2008 (Peshawar, Charsadda, Mardan, Swabi and Nowshera) and IDPs conflicted affected districts in NWFP such as Swat, Buner, D.I. Khan, Lower Dir and Tank. Through the technical and financial support from WHO, a number of the health assessments were also carried out by the health department (DoH) of NWFP and health cluster partners such as UNICEF, Merlin, Save the Children, IMC, Johanniter International, ARC Int'l and CRDO. The rapid health assessment in all the IDP camps in NWFP was also conducted at the time of setting up of a camp and regular updates were carried out in collaboration with the health partners working in the camps.

Furthermore, WHO in collaboration with DoH have also conducted a comprehensive assessment of the Secondary Level Care Health Facilities in 11 DHQ (District Headquarters) hospitals in 11 districts of NWFP i.e. Mardan, Charsadda, Lower Dir, Peshawar, Nowshera, Swabi, Swat, Buner, Shangla, Malakand and Upper Dir. WHO developed assessment tools for conducting the assessments in First and Secondary Level Care Facilities. These tools were also approved by all the health cluster partners. The data collected was analyzed by WHO and information was duly shared with the stakeholders in form of a report which was very helpful for planning and filling the gaps in health related emergency response.

Capacity building

WHO also managed to train around 150 senior and mid-level medical professionals/public health officers from DoH and health cluster partners on the health assessment tools for conducting the assessments in the health facilities.

Findings

The following table shows the facility and district-wise health facilities assessed in NWFP:

No	Province	District	Hospitals (THQs, Civil Hospital and DHQs)	Rural Health Centers	Basic Health Units	Civil Dispensary
1	Balochistan	Pishin	2	2	26	1
2	Balochistan	Ziarat	1	3	12	2
3	Punjab	Rajanpur	3	5	22	4
4	NWFP	Charsadda	2	3	31	2
5	NWFP	Mardan	3	6	42	2
6	NWFP	Nowshera	2	3	31	-

7	NWFP	Swabi	3	4	38	-
8	NWFP	Peshawar	1	2	35	-
9	NWFP	Lower Dir	3	3	5	5
10	NWFP	Upper Dir	1	-	-	
11	NWFP	Buner	1	3	19	
12	NWFP	Swat	7	3	38	4
13	NWFP	D.I. Khan	5	4	35	-
14	NWFP	Tank	2	3	18	
15	NWFP	Shangla	1	-	-	

3) Provision of comprehensive Primary Health Care (PHC):

During 2008-09 emergencies, EHA Pakistan supported primary health care services in response to the following disasters:

August 2008-Flash floods in Rajanpur and Peshawar districts of NWFP

The Primary Health Care services were provided through Implementing Partners (NGOs/INGOs) in 6 affected districts of the NWFP with provision of essential drugs to the Department of Health and IPs. Capacity of the health care providers was also enhanced through imparting trainings.

October 2008-Earthquake in Ziarat and Pishin in Balochistan

Health care delivery was done through BRSP, MERLIN and IOM in 2 affected districts. Medicines and medical supplies were delivered and psychosocial support was provided to the affectees.

August 2008-IDP crisis in NWFP

Adequate PHC coverage was carried out through more than 38 health partners for the population living inside the camps as well as to the population living in the host communities. More than 44 static health posts were established by NGOs/INGOS/UN, 500 public health facilities operated by DoH and 43 mobile medical units of NGOs/INGOs/UN/DoH were supported in the hosting communities. Provision of 24/7 health care services was ensured through trained male and female health workers.

Save the Children, UNFPA, ICRC, Merlin, IMC, CORDAID, CERD, Islamic Relief and Health-Net TPO) were among the major implementing partners in 4 IDP camps established in NWFP. Referral of critical cases to DHQ was supported through provision of 22 ambulances in 11 affected districts of NWFP. All the health facilities were provided with essential medicines and supplies during 2008-09. Health promotion campaigns were carried out by Health Educators in the IDP camps.

Return of IDPs in Swat and Buner, NWFP in 2009

Return of IDPs started in July 2009 warranting immediate healthcare provision in the areas of return. WHO along with its implementing partners ensured provision of comprehensive primary health care and essential medicines through Merlin, NIDA, Save the Children, Relief International, IMC, UNFPA, UNICEF, DR-Net, ARC Int'l and HHRD in the districts of Swat and Buner.

October 2009-Waziristan response

After the completion of a rapid assessment of health facilities in D.I. Khan and Tank, WHO is providing equipments and supplies in all the overburdened health facilities which were identified by the health authorities in both the affected districts respectively.

In addition, WHO is also providing essential medicines to DoH and health cluster partners in the overburdened health facilities of D.I. Khan and Tank. WHO is providing 2 ambulances each to the DHQ and THQ hospitals in D.I. Khan and Tank.

Maternal, Newborn and Child Health Care

At the beginning of the year 2008, work in recovery of the flood affected areas continues. MNCH as an integral component of PHC and as a key life saving intervention continued. MNCH response was facilitated by coordination with partners to ensure provision of services in all areas, ensuring presence of female health care providers and provision of medicines and supplies.

The IDP crisis put pregnant women at special risk, exacerbating the already severe lack of access to prenatal care, assisted delivery and emergency obstetric care. It was a challenge for the humanitarian community to assist these people especially the vulnerable groups which comprise of women and children.

In Pakistan the access to health care for women is hindered by socio cultural factors such as restricted female mobility, availability of transport, status of women and poverty, lack of timely referral, inadequate and inefficient health services and lack of trained female health care providers. By the peak of the crisis in June 2009, more than 800,000 women in child bearing age were present among the IDPs in which approximately 113,000 were pregnant women.

Apart from the NGOs, the Government has also set up several health posts and is supporting existing health facilities in provision of services and filling gaps in availability of female health care providers. These include deployment of gynaecologists from Punjab province. Lady Health Workers (LHWs) programme is assisting PIMS field hospital, established at Jalozei camp, Nowshera, in terms of referral and care of needy persons, particularly pregnant ladies and women requiring maternity services.

Two trainings each on Emergency Obstetric Newborn Care (EmONC) and Integrated Management of Newborn and Childhood Illnesses (IMNCI) were carried out for the health care providers in Malakand Division in November-December 2009. A total of 96 health care providers were trained to improve skills in ensuring quality service provision.

4) Provision of Essential Medicines and Supplies:

WHO is supporting the Department of Health and implementing partners for the provision of essential medicines and surgical supplies with special focus on gap-filling in essential medicines and supplies through close coordination with all the stakeholders, aimed to avoid duplication in supplies and rational utilization of medicines.

In 2008, WHO continued support to flood affected areas of Baluchistan and Sindh provinces. 37 Cholera kits, 193 clean delivery kits, 7 MEHK, 2 Reproductive and MCH kits, 8 Clinical laboratory kits were delivered to NWFP. 14 Cholera kit and 8 Clinical laboratory kit were sent

to Azad Kashmir. In Baluchistan, 25 Cholera kits, 2845 clean delivery kits, 183 MEHK, 3 Reproductive health and delivery clinical assistance kits, 7 Microbiological Testing Kit, 15 Trauma Kits and 2 Surgical supplies kit were delivered during 2008. In Sind, 10 Cholera kits, 1164 clean delivery kits, 3 Microbiological Testing Kit, 55 MEHK, 7 Trauma Kits and 2 surgical supplies kit were delivered. For Punjab flood response 19 Cholera kits were delivered.

In 2009, WHO EMM team provided technical support to the procurement department for the purchase of medicines and surgical supplies. Maintaining good warehouse practices and assembled more than 1500 Medical kits. Regular visits of health facilities to access the medicine availability and on spot interventions to improve the essential medicine management practices coupled with more than 70 training session on essential medicines management were organized for implementing partners, department of health and NGOs working in health sector at NWFP. Facilitation has been provided for the health facility assessment of primary, secondary as well as assessment of IDPs camps. 62 Cholera kits, 32 IEHK, 5 Trauma Kits, 2 MCH kit, 543 MEHK, 6 Surgical kits were delivered at various locations in NWFP. In Baluchistan, 12 MEHK were sent during 2009.

Training programs were organized for the concerned staff on Inventory Management Tool (LSS), Good Pharmaceutical Storage and Management Practices, Rational Use of Medicine and OPD Protocol. Maintenance of supply chain was backed by good warehousing practices including the assembling of locally customized kits as well as assistance to the health facilities assessment.

Capacity Building on Essential Drugs Management

WHO Essential Medicine Management (EMM) team, coordinates with the Department of Health (DoH) and implementing partners regarding essential medicine supplies and strengthen local capacity in essential medicine and surgical supplies management, particularly in NWFP. Due to high percentage of Leishmaniasis cases, special training sessions on Guideline for Diagnosis and Injection Techniques for Leishmaniasis were held. More than 70 training session programs were organized in different locations as well as regular visit of IDPs camps while contingency plans as well as buffer stocks for epidemic were maintained at vulnerable sites.



Training to the Health staff of EDOH and PPPHI, Nowshera



On-job training session



Training session Mobile Clinic

5) Implementation and strengthening of Disease Early Warning System (DEWS):

From the successful experience of October 2008 earthquake response, DEWS has been considered one of the successes of the response and is credited with preventing a secondary wave of mortality after the earthquake itself, through prompt identification, investigation and control of potential outbreaks of communicable diseases.

During the biennium 2008-2009, DEWS activities were implemented immediately after the floods in Peshawar in NWFP and Rajanpur in Punjab, the earthquake in Balochistan and the IDP crisis in NWFP. The DEWS activities, already implemented in the district of Peshawar in February 2008 to monitor the Bird Flu, were immediately expanded to cover the flood affected areas in the district.

During the IDP crisis in 2008-09, the already functional DEWS network in these districts was further strengthened and expanded to the hosting districts. It was also expanded to the IDP return districts (Swat, Buner and Lower Dir) after the IDPs' return in July-August 2009.

In October 2009, the Military operation started in the South Waziristan Agency as a result of which the population was displaced to other parts especially to the two districts of Dera Ismail Khan and Tank in the south of NWFP. The DEWS network was also expanded to these two southern districts. As of December 2009, the DEWS network has been expanded to 10 districts in the North West Frontier Province (NWFP) and 4 new districts in Balochistan province.

Disease Early Warning System in the earthquake affected districts of Balochistan

DEWS network was already functioning in the 11 districts of Balochistan affected by the 2007 floods. After the October 2008 earthquake the network is expanded to three more districts and DEWS activities implemented in 109 Health facilities. Training of health care providers conducted in four districts and 220 health care providers of the Department of Health and PPHI programme trained in DEWS activities.

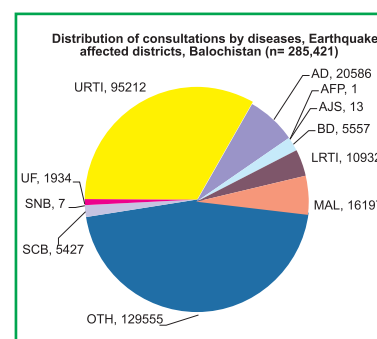
Table 1: Disease Early Warning System (DEWS) Trainings conducted in Balochistan for the health care providers of the Department of Health, People's Primary Health care Initiative and the Health care partners

Districts	Date	DoH and PPHI Staff Trained		
		Doctors	Paramedics	Total
Quetta	9 Sept 2009	16	39	55
Pishin	10 Sept 2009	14	39	53
Ziarat	12 Sept 2009	14	41	55
Bolan	14 Sept 2009	5	52	57
Total	-	49	171	220

The number of weekly DEWS reporting in the earthquake affected district of Balochistan remains varying. On average around 45 health facilities are send weekly reports. During the period October 2008 to December 2009 total 285421 consultations reported from the three districts

DEWS activities in North West Frontier Province in 2008-2009

The DEWS network is functional in 10 districts of the NWFP. Total 508 health facilities are included in the network. WHO has assigned DEWS teams in all the districts. The healthcare work force of the Department of Health (DoH) and healthcare partners are trained on standard case definitions, data collection, reporting and alert generation. From the participating health facilities, data are collected weekly, entered and analyzed by the DEWS teams and Weekly Morbidity and Mortality Bulletins (WMMR) are produced and shared for feedback and action with the Health Cluster partners. Alerts/outbreaks are timely investigated and responded and



trends of the priority communicable diseases are monitored. During the period 2008-09, a total of 1466 healthcare providers were trained on communicable disease surveillance and alert/outbreak response.

Table 2: DEWS training conducted for the health care providers of PPHI programme in the IDP hosting districts NWFP in 2008

District	Date	DoH and PPHI Staff Trained		
		Doctors	Paramedics	Total
Mardan	9 Nov 2008	25	101	126
Charsadda	1 Dec 2008	27	41	68
Nowshera	12 Dec 2008	48	50	98
Total	-	100	192	292

Table 3: DEWS training conducted for the health care providers of PPHI programme in the IDP hosting districts NWFP in, 2009

Districts	Date	DoH and PPHI Staff Trained			Health Partners Staff Trained			Grand Total
		Doctors	Paramedics	Total	Doctors	Paramedics	Total	
Nowshera	Oct 2009	14	101	115	-	-	-	115
Charsadda	Oct 2009	40	52	92	4	12	16	108
Mardan	Sept 2009	45	52	97	13	24	37	134
Swabi	Aug 2009	31	53	84	-	-	-	84
Peshawar	Oct 2009	40	104	144	-	-	-	144
Swat*	Oct 2009	37	93	130	15	38	53	183
Buner	Nov 2009	29	64	93	38	28	66	159
Lower Dir	Oct 2009	22	53	75	-	-	-	75
D. I. Khan	Nov 2009	31	80	111	-	-	-	111
Tank	Nov 2009	11	36	47	-	-	-	47
Peshawar	Nov 2009	14	-	14	-	-	-	14
Total	-	314	688	1002	70	102	172	1174

*45 Medical Students in Swat were also given orientation on DEWS

A total of 3,789,483 patient consultations were recorded during this period. Weekly data from the 508 health facilities collected, computed, analyzed and bulletins are produced by each district team and the information shared for action and decision making by the relevant stakeholders. Weekly trends of the priority communicable diseases monitored. Alerts are detected investigated and responded accordingly.

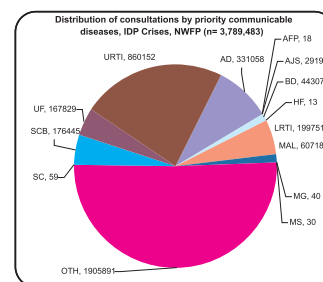
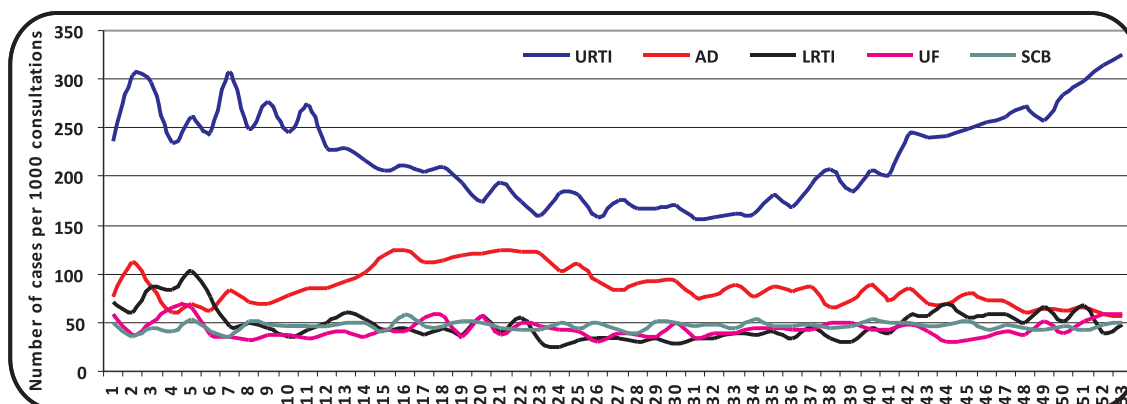


Figure 1: Weekly trends of the five most common communicable diseases, in the conflict affected and IDP hosting districts NWFP, from January to December 2009, presented as number of cases of each disease per 1000 consultations



Alerts and Outbreaks in the IDP crisis in NWFP

From August 2008 to December 31, 2009, a total of 157 alerts were reported from the DEWS implementing districts. Almost all the alerts were timely investigated by the DEWS teams. Fifty two potential outbreaks were identified, responded, contained and controlled. Distribution of Alerts and outbreaks by districts and by disease in the IDP crisis NWFP presented in table 3 and 4.

Table 1: Alerts and Outbreaks by disease in the IDP crisis NWFP, August 2008 to December 2009\

S No	Diseases	Alerts	Outbreaks
1	Acute Flaccid Paralysis	16	1
2	Acute Jaundice Syndrome	4	0
3	Acute Watery Diarrhoea	60	30
4	Bloody Diarrhoea	5	3
5	Bird Flu	6	0
6	Chicken Pox	6	2
7	Crimean Congo Hemorrhagic Fever	2	1
8	Dengue Hemorrhagic Fever	11	5
9	Diphtheria	1	0
10	H1N1	8	3
11	Leishmaniasis	4	2
12	Suspected Malaria	3	0
13	Measles	25	3
14	Meningitis	1	0
15	Mumps	3	1
16	Neonatal Tetanus	1	1
17	Pertussis	1	0

Table 2: Alerts and outbreaks BY district IDP conflict NWFP Pakistan

S No	Diseases	Alerts	Outbreaks
1	Buner	3	0
2	Charsadda	13	4
3	D.I. Khan	2	0
4	Lower Dir	8	2
5	Malakand	3	0
6	Mardan	27	10
7	Nowshera	33	13
8	Peshawar	50	17
9	Swabi	1	0
10	Swat	18	6
Total		157	52

6) Environmental Health Interventions:

One of the major commitments of WHO during the emergency period is to ensure that risks related to the environment are recognized and properly managed. Enhancing the living environment of the IDPs and hosting communities is one of the main objectives of WHO operations in those areas. Specifically, to ensure the control of preventable ill health and to recognize and properly manage risks related to the environment. In the immediate aftermath of the influx of IDPs, WHO stressed the risks of contaminated water supplies causing diseases such as cholera and diarrhea, and Emergency Relief programs were prioritized accordingly. WHO-Environmental health activities during this period, from August 2008 till December 2009 can be summarized as follows:

Coordination: WHO Environmental Health team participated 50 provincial WASH clusters, 29 district WASH cluster meetings in Swabi (13), Mardan (13) and Swat (3) since August 2008 till date for highlighting the health risk of preventable illness to IDPs, associated with contaminated water, unsafe or insufficient sanitation & unhygienic condition and generating Prevention & Control Response from the WASH cluster. Camp coordination meetings were regularly attended to identify the gaps in WASH services, highlight the critical needs & solve WASH issues at camp level working together with the service providers.

Water Quality Monitoring

During the past 12 months around 1349 water samples were tested for microbial quality from various sources of the IDP camps and IDPs hosting districts, where 100% of the water samples taken from deep boreholes were found to be fit for drinking, but 29% and 40% of the household and hand-pumps were found to be unfit for human consumption respectively. Results of the contaminated water sources (19%) were timely shared with WASH cluster at Provincial & District level to initiate the remedial measures undertaken by the WASH partners mandated for IDP camps & host communities. A joint prevention & control Response of WASH & Health partners was extended to host communities in water born disease alerts & outbreaks reported from the health facilities of respective districts. WHO also provided technical assistance to Mercy Corp, UN-Habitat, World vision international, Pakistan Village Development Program and MSF France for water quality testing in major clusters of IDP host communities in District Mardan, Swabi, Buner & Lower Dir.

Water Quality Improvement: WHO Environmental Health unit in collaboration with WASH partners resort to chlorinate all water found to have no residual chlorine to protect public health. An external & internal monitoring mechanism was implemented in all IDP camps for uninterrupted water chlorination with regular residual chlorine testing of the water supplied to these camps & host communities. WHO installed 10 chlorinators for uninterrupted chlorination in Jalozai IDP camp & Benazir complex Nowshera, TMA water source, Palosa & Sugar Mill IDP camp Charsadda, Larama IDP camp Peshawar to provide chlorinated water to the IDPs living in these camp. The TMA plant operators & volunteers from WASH partners were trained on chlorination & use of HTH (70%) for water disinfection. Calcium Hypochlorite was provided to TMA Charsadda, Nowshera, Mardan, & Swabi for smooth operation of these units. Since August, 2008 WHO Environmental Health unit tested 1760 water samples for residual chlorine in which 86% samples were found to have free chlorine (0.2-0.5PPM), where 14% samples were found without residual chlorine. Water without recommended chlorine level was either rejected or re-chlorinated for safe human consumption.

Capacity Building

WHO extended its support to Govt water authorities in NWFP for building their capacity to manage the ongoing and future emergencies in the Province. Since August 2008, WHO conducted four training workshops on WASH at provincial level for Govt water authorities & WATSAN partners, one federal level training course for LG&RDD NWFP, Workshop for BDN Program & several on job trainings to TMA, PHED & DoH on water disinfection & Environmental health management in emergencies, health care waste management & Total Disinfection in Hospital environment. A total of 207 persons from line departments & WASH partners were trained in these workshops.

- One day training workshop on “Environmental health “management in emergencies” conducted on 20th May 2009 in LG & RDD secretariat Peshawar facilitated by WHO experts from EMRO. 32 participants from government and WASH partners participated in the training
- Two days training was conducted on 4-5 December 2009 on “Water quality monitoring and PHAST approach for hygiene promotion in emergencies” for WASH partners. WHO and IMC jointly facilitated the training. UNICEF provided financial support. 30 participants were trained in this workshop

- One day training workshop on “Water quality monitoring & treatment in emergencies” for WASH Partners & Government water authorities on 8th June 2009. A total 55 persons from different organizations participated in this training
- Three days training workshop of TOTs on “Hygiene promotion in emergencies” in collaboration with UNICEF, Oxfam-GB & World Vision international on 13th-15th August, 09. 30 participants from WASH sector attended this workshop
- Three days training workshop for BDN program NWFP from 22nd-24th June, 09 on “Environmental health aspects of healthy sitting”. A total of 30 participants from WHO BDN program Districts were trained in this workshop
- Three days training course with PCRWR from 21-23 December 2009 for managers of provincial water authorities of conflict affected districts of Malakand Division, NWFP on “Water quality improvement & management”. 30 managers of 12 TMA of Malakand Division participated in the course

Establishment of Diarrhoeal Treatment Centres (DTCs): WHO EH Team provided material support & technical assistance in establishment of Seven Diarrhea Treatment Centres (DTCs) in Kacha Garhi, Jalala & Jalozaï IDP camps, Satellite hospital Pabbi District Nowshera, DHQ hospital Mardan and Charsadda. Intervention included site assessment & preparation, provision of chlorinated water to the treatment center, implementation of infection control measures, provision of disinfectants, hiring & training of sanitary staff and construction of WASH facilities in these DTCs.

Vector Control activities: WHO in partnership with Malaria Control Program (DoH) & Health Net-TPO took exclusive measures for mosquitoes & flies control in IDP camps & host communities. Fogging and residual spraying was carried out twice in Kacha Garhi IDP camp on 28th April 2009 and in Jalozaï IDP camp on 21-25 April 2009 & 16-18 November 2009. In Yar Hussain camp, WHO provided technical & financial support for residual spraying to PCRWR, where residual spraying was conducted in Yar Husain camp Swabi for one week (28 May to 4 June 2009) while in Palosa I, II and Charsadda Sugar mill Camp residual spray was done in past summer.

Health Education & Awareness: Poor hygiene & lack of awareness about health promotion habits was a major cause of morbidity in IDP camps. As part of routine EH activities for targeting hygiene related problems in IDP camp from August 2008 till December 2009, around 1432 hygiene sessions were conducted & facilitated by the WHO EH team in all the camps in collaboration with UNICEF WASH implementing partners. All sections of the displaced communities were reached out in the process involving religious leaders, community elders, school teachers, students & family heads.

Global Hand Washing Day-15th October: Global Hand washing Day 15th October was celebrated twice together with WASH clusters in Kacha Garhi, Jalozaï, and Jalala IDP camps & host communities. Major activities of the event include Demonstration of Hand washing SOP to school children's & distribution of antiseptic soap. Corners meetings, focused group discussions were held. Display charts and poster on health awareness and sensitization messages on health hygiene were developed.

Support to Local WASH Authorities: WHO supported local WASH authorities of NWFP with the provision of water quality and hygiene improvement items like 14 WagTech water testing laboratory, for physio-chemical and bacteriological testing of drinking water supplies, 100

000 Aqua tabs, 3000 Dettol Soap 75 gm for personal hygiene, 900 Nerox drinking water filters, 300 kg HTH (70%), 5000 Garbage bags, 10 Chlorinators were installed for continuously chlorinating water supply systems.

WASH improvement of central Health Facilities: WHO Environmental Health team is pursuing UNICEF sponsored WASH improvement project in DHQ hospitals of IDP hosting Districts aiming to improve the Environmental health conditions of seven central health facilities in four IDP hosting districts. Planned project activities includes improvement of infrastructure of emergency sections, establishment of health care waste management system, water quality improvement, training of Health care workers and Government Water authorities, & establishment of district water testing lab swat & provincial water testing laboratory in NWFP, more than 90% of the project activities has been completed.

Distribution of WASH improvement items: WHO provided material support to DoH & WASH partners for controlling water born diseases in IDP camps & IDP host communities. In this respect, WHO provided 250 kg of HTH (Water disinfectant) to District TMAs & WASH partners in four IDP hosting Districts, 1, 50000 units Aqua tabs, 10000 hand washing soaps, 2000 awareness leaflets, 200 posters, 60 sets of water treatment manuals, 200 Nerox filters and 5000 waste bags were distributed in the affected communities, in addition a water testing kits to PHED swat, chlorimeters & chlorine testing reagents were provided to WASH partners for monitoring the process of chlorination in their respective areas.

Outbreaks/Alerts Preparedness & Response: WHO experts team in collaboration with DOH formulated and materialized the summer contingency plans for control and prevention of waterborne epidemics and developing a response mechanism from health and Wash cluster platforms.

A simulation exercise was conducted on 25th April 2008 in the IDP camps of Jalozai, Kacha Garhi and Sheikh Yaseen for evaluating the skills and materials needed to respond to waterborne outbreaks.

WASH Assessment of Health facilities in Malakand Division: WHO Environmental Health team conducted WASH assessment of the central health facilities in four district of Malakand Division in the month of August 2009. A total of seven DHQ & THQ hospitals were selected for this assessment. Information on existing WASH facilities & services was collected from these health facilities for future interventions & improvement of Environmental Health condition of these health centers. The assessment's findings have been incorporated in the implementation plan of Saudi funding for rehabilitation & improvement of health facilities of conflict affected areas of Malakand Division, which will be completed till June 2010.

Waterborne Alerts & Outbreaks: WHO Environmental Health unit through Disease Early Warning System supported the surveillance teams in investigation of 27 Acute Water Diarrhoea (AWD) alerts and responded to 20 AWD outbreaks reported from IDP camps & IDP hosting communities in the NWFP.

In all these waterborne disease alerts & outbreaks, WHO Environmental Health unit developed proper liaison with provincial water authorities, DoH and WASH partners to improve the water quality & sensitization of the community on hygiene related health issues. Water quality testing of the main water supply systems, provision of chlorinated water supply to the camps, identification & monitoring of the critical quality gaps in the WASH services,

distribution of water quality & hygiene promotion items to the displaced communities not only prevented such events but also helped to control major outbreaks like reported from the districts of Swat, Nowshera and Mardan soon after the massive displacement occurred.

Special health education & awareness efforts were carried out in each of the alerts investigated & outbreaks responded in the IDP camps & host communities involving the community elders, Lady Health Workers (LHWs) from the Department of Health (DoH), Mosques clerics and health promoters from WASH partners.

In all the waterborne disease alerts & outbreak, WHO teams were accompanied by UNICEF in resolving water & sanitation problem of the affected population by rehabilitating water supply networks, provision of hygiene kits, installation of chlorinators, water supply from safe alternative sources and deploying health promotion staff for active health education & awareness activities till the improvement of health status of the affected families.

Environmental Health activities in Flood affected districts of Baluchistan and Sindh

Floods in Baluchistan and Sindh provinces inundated large areas of more than 16 districts of Sindh and more than 7 districts of Baluchistan. In addition to huge loss of life, thousands of people were displaced from their homes due to huge floodwaters. In Baluchistan, about 5000 villages were affected while in Sindh, 173 villages were submerged. Over 67500 houses were damaged in the flood-affected provinces of Baluchistan and Sindh. WHO participated actively in the WASH cluster from the very first day. Through the WASH cluster, WHO has established a good partnership with all the partners in the cluster and built good relations that enabled WHO to identify easily the domain of the Environmental Health activities needed to be carried out to fill the gaps. The coordination meetings also led to better response to hazardous situation and were a very effective tool in planning throughout the past period and represent the back bone of any future activities.

WHO also provided technical support to WASH cluster to fill the gaps identified, and helped the cluster respond timely to Water & Sanitation issues in the affected areas.

Water Quality Monitoring

Drinking water quality monitoring was carried out in 12 flood affected districts (two in Sindh and ten in Baluchistan) having 2600 villages and 5.12 million population. A total of around 3200 sites were analyzed for physical, chemical and bacteriological tests. WHO Environmental health in collaboration with the Pakistan Council for Research on Water Resources (PCRWR) tested 2132 water samples for different physical, chemical and biological parameters in two flood affected districts of Sindh province i.e. districts of Dado and Kambar Shahdad Kot. Only 4 % sources were found to supply safe drinking water. The rest of the sources were found polluted with 73% microbial contamination. While 2304 water samples were collected and analyzed for physio-aesthetic, chemical and microbiological parameters. 94% samples were found bacteriological contaminated. Samples for remaining physio-chemical analysis were sent to PCRWR laboratories in Sindh and Baluchistan provinces.

Water Quality Improvement

Beside analysis of various sites WHO provided approx 4000 kg of calcium hypochlorite, 16000 microbiological kits and brochures on the chlorination guideline to the line government

departments. 5 GPS units were donated to PCRWR.

Capacity Building

- 12 sessions on capacity building were conducted on district and provincial level during & after flood situation in Baluchistan on water quality monitoring, water parameters, sampling techniques, improvement and water disinfection methods & data base development. Also trainings on the use and workability of Nerox filters & Delagua water quality testing kit were given
- One-day training (November 2008) on provincial level as per SPHERE standards on water related issues (including installing of water points & water bladders, water parameters, water borne diseases, water disinfection & chlorination. This was attended by various WatSan partners from different NGOs & the line departments, Public Health Engineering Department & Local Government & Rural Development Department (LGRDD)
- One-day trainings (during and after floods) in each district on sanitation issues (including construction of pit latrines practically on field), hygiene issues including personal & overall hygiene. Distribution & trainings have also been conducted to the community on the safe use of Aqua tabs & Nerox filters. These trainings had been conducted in the districts of Jafferabad, Naseerabad, Jhal Magsi, Gawadar, Kech, Khuzdar, Kharan, Awaran and Lasbela

Support to local WASH authorities

WHO donated some WASH items to PHED Baluchistan including 6 units of WagTech, 6 Turbidity tubes 13" water testing kit, 15000 Phenol red reagents, 7 microbiological testing kits with complete accessories, 30000 DPD-1 and DPD-3 tablets to strengthen the capacity of Public Health Engineering Department (PHED), Government of Balochistan & ensure safe water & adequate quantity to the people of Balochistan.

7) Communications and Information Management:

Effective communication and information management played a vital role in coordinating a well-organized health response in the year 2008-2009. Since the number of Health Cluster partners increased with the expansion of humanitarian actions to areas of crises in North West Frontier Province (NWFP) where influx of conflict affected population are displaced in different parts of the district, the Coordination, Communications and Information Management played a key strategic role to avoid duplication and minimize gaps in provision of humanitarian health services. Pakistan has most diversified land distribution which has extreme difficult mountains, rugged deserts and potential flash/seasonal floods and cyclone prone areas therefore, the GIS mapping provided multifaceted benefits in terms of security and safe/timely response. The mapping also helped in redirecting services in remote and difficult to access population through various strategies such as mobile health units.

Production of information material/publications for the Health Cluster

Mapping of health cluster partners i.e. production and regular update of "Who, What, Where" matrix and maps. Twenty Health Cluster Bulletins reflecting important events, highlights of Cluster activities, DEWS surveillance and outbreak, partners' activities, funding updates etc.

were produced and shared among the Health Cluster partners, means of mass communication, MoH and further posted on website regularly. OCHA weekly situation reports were produced to reflect the health response in the area of conflict. A Photo Essay on health response in NWFP was produced. UN Special Magazine was also completed and printed for international community, donors and channels of mass communications.

NWFP Crisis brochure was produced and delivered to all the health authorities, government line departments, disaster specialist agencies and Health Cluster partners. Slide Show on NWFP crisis was produced and shared with mass communication potential sources. DEWS film was produced and shared with UN agencies, international community, donors and Health Cluster partners. Images of NGOs' activities, cross cutting issues such as mother and child health, gender and reproductive health are collected and made available in the database. Human interest stories were also developed on Health Recovery in conflict affected districts.

Under Global Information System (GIS) mapping, 115 maps were produced to facilitate health response teams, cluster partners and donors for the planning, field usage as well as promotional activities in terms of coverage and presence to authenticate. Also the vector data of road network has been collected through GPS as poly-line in Geo data base. W3 contact list of cluster members, 3D maps attached with geo database and financial modules are regularly updated.

Health in Photos is an ongoing process for health interventions and achievements depicted through photos supported with description of events and captions. Following are available:

- a) Essential Medicines
- b) Mental Health Psychosocial Support

Database and Website development and maintenance

DEWS software database management was escalated from 25 country-wide emergency response to 50 districts.

WHO Pakistan website is regularly updated to reflect the emergency preparedness and response mechanism to inform and facilitate masses. Web based Podcast was produced. ONE RESPONSE website is maintained, updated and further development is being done as per WHO requirements.

Maintaining a close liaison with mass media

Media Talking Points shared with press and OCHA as an ongoing activity and also supported UNIC, UNOCHA, IOM agencies in this regard. Radio Peace was delivered on the evening of the World Humanitarian Day where WHO participated in live talk show on FM 100.

Support to programs

Material produced and interviews taken for the Lady Health Workers Bangle project. 12 key health promotion messages fliers produced and disseminated to the targeted 3.74 million population.

Coordination and information sharing with DEWS teams on ground was effectively done in order to have complete picture of DEWS on web based communication and information

channels/search engines.

Trainings

- Trainings on GIS were provided to the Government health department and implementing partners in the district Swat. 17 participants from the Department of Health (DoH) and 22 participants from various implementing partners were trained
- Photography workshop was organized for DEWS surveillance teams for quality photographs resources

8) Support to Persons With Disabilities (PWD):

Persons With Disabilities (PWDs) are one of the most vulnerable group in a crisis situation. In settings where resources are limited, the impact of disasters on these groups of people can be long-term and far-reaching.

WHO disability section remained very proactive in the Biennium 2008-2009 in carrying out assessments, improving coordination, undertaking capacity building initiatives, and providing rehabilitative services for the PWDs in the IDP camps and in the earthquake affected areas. The disability section also carried out activities to deliver health promotion messages to the mothers residing in the IDP Camps.

Following are the major activities which were carried out in the last Biennium.

Assessment of PWDs among the displaced population residing in camps

A need based assessment survey was carried out to assess the prevalence of disabilities and its specific types among the IDPs and their needs in terms of comprehensive rehabilitation services including health, education and livelihood. A total of 2153 PWDs were identified and the commonest disability reported being the physical type of disability which represented 65% of the total. Technical assistance is being provided to Pakistan Institute of Prosthetics and Orthotics Sciences (PIPOS) for the provision of assistive devices to these PWDs.

Innovative health promotion approaches for mothers in the IDP camps to learn about health and to adopt healthy lifestyles

A very unique project “Innovative health promotion approaches for mothers in the IDP camps to learn about health and to adopt healthy lifestyles” has been launched in the IDP camps to empower mothers with knowledge and skills towards healthier behaviors, lifestyles and habits through health promotion messages. The objective is to bring innovative health promotion approaches for mothers to learn about health and to adopt healthy lifestyles.

Initially, a base line KAP survey was conducted for 1000 IDP mothers, having children under the age of two years. A two day training workshop was organized to train 73 hygiene promoters working in the IDP camps to deliver health promotion education to the mothers. The eight key messages include, antenatal care, dangerous signs in pregnancy and during birth, dangerous signs in newborn, immunization, breast feeding, diarrhea, acute respiratory infections and hand washing.

These messages would be delivered to approximately 14,000 mothers residing in the camps through lectures and pictorial IEC material and would be associated with a material object like

bangles. Each mother would be presented with a bangle at the end of the training session, as an incentive to learn, implement and retain the health education messages and adopt healthy lifestyles.

In order to test their retrospective memory and capacity to store, retain and recall the information provided, the end line KAP survey would be conducted, again on the same sample group, after one month. The result will illustrate the effectiveness of the communication techniques applied as well as the retention power of the mothers.

Following important international documents regarding disabilities are translated into national language Urdu:

- UN Convention for the Rights of Persons With Disabilities (PWDs)
- CBR Joint Position Paper
- WHO Training Manuals for Community Based Rehabilitation
- CBR Guidelines (Health, Education, Livelihood, Empowerment and Social Integration)

Medical Rehabilitation of the Persons With Disabilities in the earthquake affected areas

The first mega project “Medical Rehabilitation of the Persons With Disabilities in the earthquake affected areas,” regarding disabilities, has been launched in 2007 for the earthquake affected districts with the technical assistance of WHO. This project is a combination of Institution Based and Community Based Rehabilitation and the project activities will be complete by the end of year 2011. The major achievements are as follows:

- Establishment of 02 Rehabilitation Centres, 04 CBR Resources Information Centres
- 372 Community Rehab. Workers (CRWs), 60 technical staff recruited and trained from each union council of the four earthquake affected districts
- 06 CBR manuals for training of CRWs developed in Urdu language
- 10 training session each of 30 days imparted for the CRWs regarding CBR
- 28,873 PWDs received medical rehabilitation services, 47,506 therapeutic sessions conducted
- 1,176 children enrolled in schools for inclusive education, 771 PWDs trained and provided with livelihood
- 200 Village CBR Committees and 45 Disabled People Organizations (DPOs) established
- 08% PWDs recruited in the CBR Program (Government has fixed 2% quota)
- 12 awareness raising workshops/seminars organized more than 1,000 participants sensitized
- The process for initiation of National CBR Program in the country started

9) Procurement and Logistics:

During the biennium 2008-09, following procurement was carried out as part of the comprehensive emergency response.

Table 6: Summary of items procured/delivered (January 2008 - December 2009)

Sr.#	Items	NWFP	Sindh	Punjab	Balochistan	AJK	ISB (MOH)	FANA	Total
1	Interagency Emergency Health Kit	31	-	-	-	-	-	1	32
2	New Emergency Health Kit	-	-	-	1	-	-	-	1
3	Mini Emergency Health Kit	402	-	-	-	-	-	-	402
4	Cholera Kits	95	25	19	25	14	1	0	179
5	Italian Trauma Kit Part A	2	1	-	1	-	-	-	4
6	Italian Trauma Kit Part B	3	5	-	14	-	-	-	22
7	Surgical Supply Kit	2	2	-	2	-	-	-	6
8	Cholera Kit Part F	3	-	-	-	-	-	-	3
9	Clinical Chemical Lab Kit	8	-	-	-	8	-	-	16
10	Clean Delivery Kit	193	1164	-	2845	-	50	-	4252
11	PPE Kits	600	200	700	225	-	-	-	1725
12	Nissan Double Cabin Pickup	-	1	-	1	-	-	-	2
13	Toyota Double Cabin Pickup	-	2	-	10	-	-	-	12
14	Toyota Hiace Ambulances	22	-	-	-	-	-	-	22
15	Generators 50Kva	11	-	-	-	-	-	-	11
16	Tents	-	67	-	101	-	-	-	168
17	Insulated Warehouses	2	-	-	8	-	-	-	10
18	Water Testing Labs	4	-	-	-	5	-	-	9
19	Hydraulic Operation Table with Equipments	3	2	1	2	-	2	-	10
20	Autoclaves Imported	3	2	1	1	-	2	-	9
21	Ostelmovir (Tamiflu Caps) Doses	-	-	-	-	-	200000	-	200000
22	IT Equipment	11	3	-	11	-	-	-	25
23	Hospital Equipment	11	-	-	-	-	-	-	11
24	ORS	109710	-	-	8800	-	436578	-	555088
25	Syringes	646738	-	-	-	-	2736000	-	3382738

10) Emergency Management and Community Preparedness:

Civil protection bodies, emergency management organizations, and sectoral departments, such as public health authorities, are responsible for ensuring the safety and security of people, resources, and environment in the face of a hazard. It is at the community level, however, that the full effects of emergencies are felt, and it is there that definitive achievements in emergency preparedness can be made. It is difficult for national and international emergency organizations to form an effective working relationship with a community that is unaware of its hazards and unprepared for emergencies.

The key to emergency preparedness is the involvement and commitment of all relevant individuals and organizations at every stage, from community to national level. The multi-sectoral approach in emergency preparedness means that many organizations accept clearly-defined responsibilities and the need to coordinate their efforts. Without their participation and commitment, emergency preparedness becomes fragmented, inefficient and poorly coordinated.

Emergency preparedness entails the process of policy development, vulnerability assessment, emergency planning training and education, and monitoring & evaluation for use in a wide range of emergency applications.

Ministries of Health are responsible for preparing, implementing and monitoring policies and guidelines for emergency preparedness for public health. In Pakistan, the Ministry of Health

has not issued guidelines regarding emergency preparedness and emergency management for the Health Sector. At the moment there are only fragmented data available dealing with mass casualty events and disasters such as mortality and morbidity but no data is accessible regarding excess mortality, event specific lethality, and public health effects of these events, and consequences on services. It is therefore difficult to have a clear picture of whether or not the 'emergencies' and their health consequences are a priority at the moment in Pakistan for the Health Sector in comparison with other public health problems such as management of frequent mass casualty situations.

The size of the country, the topography and the roads make it impossible for the federal level to reach the disaster stricken area within a reasonable span of time. Even the provincial level is not in a position to ensure a quick response. The 'district level' (some districts are bigger than provinces of many countries) is the appropriate level for developing "response plans" (emergency management). Provincial Disaster Management Authority (PDMA) and District Management Authority (DDMA) are tasked to prepare these plans. So far no guidelines have been issued.

The pre-hospital medical chain is not defined and there are no systems for coordinating and controlling the medical care in disasters (on-site organization, urgent medical care and evacuations of victims).

There are few scattered data providing information on the consequences and the effects of emergencies and disasters. The only available data are those in connection with communicable diseases. They are limited. In many natural disasters situations, outbreaks of communicable diseases is not a major issue while this is a major concern in refugee/IDP situations. No indicators have been defined to assess and monitor important issues. Many other essential aspects are not assessed by collecting and processing appropriate indicators.

WHO has a major role to play in the context of sustainable development of Pakistan as a partner of the Health sector. WHO could contribute as a major partner not only by making financial resources available (that WHO receives as 'custodian of donations') but also by providing expertise and pedagogic material and human resources through experts. WHO has, so far, efficiently supported the Emergency Preparedness efforts in Pakistan.

11) Resource Mobilization

Funding generated for earthquake response 2008 was from CERF: US\$ 299,986 and DFID: US\$ 69,263.

The first Humanitarian Response Plan (HRP) was launched in September 2008, having 7 partners, 10 projects amounting to USD 9.26 million. The HRP was first revised in February 2009, with 9 partners and 13 projects requesting for USD 15.9 million. In March 2009, based on the HRP, a prioritization statement was developed in which health sector requested for an immediate funding of USD 2.47 million.

The current revised HRP was launched in May 2009 with 22 partners having 28 projects amounting to over USD 42 million. As of December 31, 2009, the health cluster received 20,380,286 (48%) of the total funds requested for (Source: OCHA-FTS).

During 2008-09 emergency humanitarian interventions were supported by DFID, CERF, AusAID, SIDA, USAID, OFDA, ECHO, Italy, Norway, UNICEF as shown in the table below:

Donors	2008		2009		Total US\$
	Projects	Amount US\$	Projects	Amount US\$	
DFID	HRP-IDPs	283,739	HRP-IDPs	4,035,652	4,319,391
CERF	Balochistan EQ	299,986		-	299,986
CERF	Nutrition	274,990		-	274,990
CERF	IDPs	1,199,043	HRP-IDPs	460,398	1,659,441
CERF	Sindh Floods	1,171,191		-	1,171,191
CERF	HRP-IDPs	75,114	HRP-IDPs WASH	54,356	129,470
AusAID		-	HRP-IDPs	551,448	551,448
SIDA	HRP-IDPs	302,115		-	302,115
USAID	HRP-IDPs	290,000	HRP-IDPs	600,000	890,000
OFDA		-	HRP-IDPs	2,000,000	2,000,000
ECHO		-	HRP-IDPs	2,789,400	2,789,400
Italy		-	HRP-IDPs	1,470,588	1,470,588
Norway		-	HRP-IDPs	4,342,017	4,342,017
UNICEF		-	HRP-IDPs	300,000	300,000
Grand Total					20,500,037

CONSTRAINTS/CHALLENGES

- The health system in conflict affected areas is trying to provide the necessary health care services to the target population. In the current situation, where most of the private health care providers have closed their practices, and the few that are available are very expensive, the public health care facilities need immediate investments. The affected population is not visiting public health facilities for lack of accessibility, non-availability of staff, especially female staff, lack of essential medical equipment, medicines and quality of care
- The security situation hampers WHO staff to work in the target districts, limiting the monitoring of project activities and health services
- Strengthening the referral services i.e. availability of ambulance services from camps/host communities to the secondary/tertiary care hospitals (especially for pregnant ladies) and support to the secondary and tertiary care health facilities is needed to cater for the specialized health care needs of the conflict affected population, such as Emergency Obstetric & Neonatal Care (EmONC)
- Lack of human resources for health especially female health workers. The ratio of women visiting health facilities in the conflict affected districts is low due to the unavailability of female health staff. Therefore, there is a dire need to provided female health workers to cater for the need of the affected population especially women

Needs and Future Plans

- Urgent need to have a national policy on health related issues in disasters and on emergency preparedness
- Emergency preparedness process to develop systems and programs for coping with every scale of adverse events
- National and Provincial Emergency Management Plans (National & Provincial

Response Plans)

- Need for ongoing Coordination of health sector response at district, provincial and Islamabad level
- Integration of all EHA activities into the existing services of the health department at federal and provincial levels, in order to avoid gaps, overlapping, lack of efficiency and lack of effectiveness and to promote sustainability of the EHA activities in Pakistan
- To implement EHA emergency preparedness program in hospitals as it could become a trigger program to promote more adequate management of casualty and emergency services
- need to manage information, collecting data regarding hazards and emergencies in order to develop a more accurate view of the situation and to identify what are the real priorities regarding the consequences of emergencies on public health, the consequences of loss of services and the problems of the recovery process
- Need to consistently improve the management of daily emergencies and the major emergencies in Pakistan. In order to reach this goal, it is necessary to launch various new teaching and training programs in the future to complete those already existing.
- Increased advocacy to donors to increase funding to the health sector response
- Development of national mass casualty plan and emergency preparedness and response plans at district and provincial level
- Since most of the health facilities have either been partially damaged or completely destroyed, pre-fab structures for health facilities should be constructed, in areas where permanent structures are not yet allowed due to insecurity
- Disease Early Warning System needs to be expanded to the areas that were previously inaccessible due to the conflict situation to avert any outbreak of communicable diseases
- Shortage of human resources for health especially women need to be addressed
- Referral services especially trauma health care and emergency obstetric care need to be strengthened

1.3 National Health Management Information System (HMIS)

For the last few years the Federal Ministry and provincial Departments of Health (MoH/DoHs) has been implementing an action-oriented Health Management Information System (HMIS) covering most of the public sector health services. Mainly WHO and UNICEF have been supporting the government in system design, capacity building of staff and provision of logistic support. Presently information from more than 100 districts of the country is compiled and analyzed by district, provincial and national HMIS cells. The data thus collected is being increasingly used in management and planning by the health departments. Despite these gains a lot more remains to be done both in terms of improving the quality of data and expanding its scope to hospital/ inpatient and private care and other critical health areas. During this biennium, significant breakthroughs were made in the areas of system design

review, expansion of the scope of HMIS to the hospitals and development of national disease trend reports.

WHO has not only provided professional/ technical input, but has also supported a number of HMIS activities. During 2008-2009, technical support was provided to develop and replicate model of decentralized district management information system in order to enhance capacity of district managers in data analysis and use of HMIS information. The tools were developed and tested on hospital MIS to explore innovative approaches for data collection, processing, analysis and feedback with a view to strengthen the National HMIS.

Objectives

1. To promote HMIS data quality, analysis, use and develop technical reports;
2. To build capacity of health managers in data analysis and use;
3. To design a hospital MIS tools, procedures and software;
4. To build replicable model of decentralized, integrated HMIS.

Activities and Outputs

During the biennium 2008 - 09 the programme was maintained at a level where health-related data was continuously gathered from throughout the country (with 114 districts reporting by December 2005) and simultaneous efforts were also made to promote the use of information in the health sector. Some of the achievements of the biennium 2008 - 09 are being summarized below:

1. **System Review and Expansion:**
 - Assisted development and processing of PC-1 for the National Health Information Resource Center (NHIRC) and assisted in its operationalization;
 - Assisted first phase of National HMIS restructuring process;
 - Supported revision of National Health Institution Database;
 - Helped establish two model District Health Information Resource Centers;
 - Supported procurement and distribution of hardware and software for selected districts and hospitals.
2. **Information Collection and Dissemination:**
 - Collected mortality data with cause of death and other details from 25 leading hospitals of the country and prepared and disseminated report;
 - Developed and disseminated five disease-specific Technical Reports based on HMIS data;
 - Composite indicator developed for PRSP monitoring from HMIS data
3. **Miscellaneous Activities:**
 - Developed replicable model of decentralized district management information system for a wider replication in two districts.
 - The capacity of district managers is enhanced in data analysis and use of HMIS information within parameters of newly developed Curricula for District Managers

- and the tools developed for Hospital MIS, including other capacity development activities
- National HMIS data is analyzed and put into a presentable form to support decision making at the operational and strategic levels
 - Innovative approaches for data collection, processing, analysis and feedback for the strengthening of National HMIS would have been tested
 - Functioning of national HMIS Cells is maintained and enhanced for implementation of planned activities and complete the system design review process and play a role in institutionalization at National level
4. Development of Hospital MIS:
- Developed training material and instruction manual on Hospital MIS;
 - Developed and pilot tested standardized software for Hospital MIS.
 - Curricula Development and Training Activities:
 - Developed curricula on 'Use of Information' for district managers in coordination with USAID/John Snow International (JSI-USA);
 - Incorporated HMIS in the curricula of medical and paramedical staff;
 - Organized capacity-building workshops on WHO's GIS-based Health Mapper, SPSS and HID software.

Technical Documents Produced:

1. Report on Vital Events Registration System - Health Management Information System
2. Utilization of Public Health Facilities in Pakistan - assessed through National HMIS Data
3. Report on study to look at the impediments and disparities in information collection and use at operational and strategic levels, including National Programs

B. Health System and Community Development

2.1 Integrated Primary Health Care (Health Management, Reproductive Health and Community Health)

Pakistan's primary health care (PHC) services are made up of a relatively large infrastructure of facilities including Maternal and Child Health Centers, Family Welfare Centers, Basic Health Units and Rural Health Centers), assisted by nearly 100,000 community-based Lady Health Workers (LHWs).

While the facility based Primary Care has a certain potential of improvement, the services provided by the nearly 100,000 Lady Health Workers make up for many of the shortcomings. The Ministry of Health's National Program for Family Planning and Primary Health Care, commonly referred to as the Lady Health Workers (LHW) Program, was launched under the Eighth Five Year Plan in 1993, aimed at increasing access to basic preventive health care services, particularly in rural areas. Lady Health Workers (LHWs) deliver a range of services related to maternal and child health including: promoting childhood immunization, growth monitoring, family planning and health promotion. They treat minor ailments and injuries, and are trained to identify and refer serious cases. Their family planning responsibilities include motivating women to practice contraception, providing pills and condoms, and referring consenting cases for injections, IUDs and/or sterilization. They are provided with a kit that includes contraceptive pills, condoms, paracetamol syrup and tablets, eye ointment, ORS sachets for diarrhea, chloroquin for malaria and cotrimoxazole for respiratory infections. A referral form is used to refer patients requiring further care to the next level facilities.

LHWs have a minimum of eight years of education and permanently reside in the community that they serve. They are attached to a government health facility, from which they receive training and medical supplies. After undergoing three 3 months full time training, followed by 12 months of in-service training, they serve around 1000 individuals which comprise of about 150 households in their catchment area. They receive a small allowance and are supervised by LHW Supervisors. They are presently covering about 55% of total population of Pakistan, close to 65% of which resides in the rural areas.

Prior to the launching of the LHW program, Pakistan had one of the highest levels of unmet need for family planning services in the world. Contraceptive use has, however, more than doubled, from 11.9% in 1990-91 to 27.6% in 2000-01, bringing about a decline in the fertility rate. The increase in contraceptive prevalence rate (CPR) has been increasing over the last few years, albeit very slowly, with the figure just touching 30% in 2006. Currently, the CPR in areas covered by LHWs is more than 40% as compared to the national figure of 30%, highlighting the contribution made by these community-based workers. As the national average also includes LHW served areas thus in fact the actual difference between covered and uncovered areas is in fact substantially higher than 10%.

The data has been substantiated by several independent sources. A recent national survey concluded that married women living within 5 kms of community-based workers were significantly more likely to use a modern, reversible method than were women who had no

access⁶. Another evaluation was conducted six years after the program was launched was largely handicapped due to the lack of baseline data. Measures of impact in this evaluation were estimated from a comparison between the population served by the LHWs and a control population selected for the study. LHWs who had worked in their community for a minimum of 4 years were eligible for inclusion in the sample, so that their impact on outcome measures in the population served by them could be better evaluated.

The data suggests that the higher level of contraceptive use seen in rural LHW areas has occurred after the introduction of the LHWs, and is consistent with the hypothesis that LHWs have played a role in increasing contraceptive use in the population that they serve. It is pertinent to note that LHW areas are more advantaged than control areas on a number of socio-economic indicators, and this might have had an impact on the uptake of modern reversible methods in these areas. However, results from the logistic regression analysis show that even after controlling for other factors, use of reversible modern methods was higher in areas served by LHWs as compared to the control areas. The net effect of the LHW Program on the use of reversible modern methods was substantial and significant (OR = 1.50, 95% CI = 1.04 2.16, p = 0.031).

The role of LHWs in improving the Skilled Birth Attendance (SBA) rate is also laudable. The LHWs job description includes getting the mother prepared for birth and facilitating her to involve SBA at the time of delivery. The national average for skilled birth attendant assisted deliveries in 2006 was 39% whereas it has remained consistently higher in areas covered by LHWs being 50% during the first half of 2007. Similar trends are also discernable for TT coverage of pregnant women and antenatal care.

Another important area of work for the LHW Program is child and neonatal health, as around 10 million children are estimated to die before the age of five, although a large proportion of these deaths can be avoided through preventive measures and early low cost treatment of these sick children at home or in the community with antibiotics, anti-malarials and oral rehydration therapy. The program is addressed this aspect through provision of training, logistics and referral linkages in the community, while using WHO case management guidelines to classify pneumonia and treat fever presumptively with the help of charts and the provided kits. Evidence suggests that the ability of LHWs to manage multiple diseases is generally adequate although there are some deficiencies, which may vary according to disease and severity¹⁰. The most common diseases encountered by LHWs in children under-5 are diarrhea, respiratory tract infections and fever with an average of 17 cases per month for the year 2006. The impact of using this model on IMR was assessed in 2000 during a third party evaluation, which found that measures of child morbidity decreased in covered area although the impact on IMR as compared to other areas was not significant when controlled for other factors. Currently, the national IMR is 78 as compared to 51 in LHW covered areas. Another third party evaluation is currently underway to evaluate these positive impacts in greater depth.

WHO Role in the Program

The Federal Ministry of Health provides technical and financial support to the programme while field implementation is supported and carried out by the provincial and district health

systems. Many international agencies including WHO are supporting the LHW programme in different ways. WHO supports the Government in training, updating the LHWs curriculum and related human resource capacity building. WHO also provides technical support in updating the knowledge and skills of the supervisors through conducting regular refresher courses, and assists the government in developing monitoring and supervisory checklists and creating a feasible health management information system for the LHWs. The WHO and the MoH are promoting technical support to improve the knowledge and skills of the LHWs and their linkages with the first level care facilities. Many health-related programs like TB DOTS, RBM, EPI, PEI, health education, MCH and FP are being implemented in different areas keeping in consideration the critical role of LHWs as community-based workers.

Integrated PHC

At present, several health-related programs are working under national management, to target specific conditions of ill health in Pakistan. Each programme has an independent organizational set-up from the federal, provincial, district to the first level care facilities (FLCF). Under-utilization of available human resources and public health facilities due to low quality of health care services and high rate of absenteeism needs to be corrected by improvement in district health management, development of feasible standards and guidelines for service delivery and improvement in quality of care at various levels in the district. Experiences from other regional countries has shown that integrated health services can improve coverage and quality of health services, increase the level of community involvement, provide continuous availability of care, reduce the costs of health delivery, optimize use of scarce resources and prevent duplication of unnecessary services at different levels, improving the accountability within the health system.

The development and implementation of an integrated PHC system in 5 pilot districts was part of the WHO, Joint Programme Review Mission (JPRM) plan of action for biennium 2004 - 05. Malaria, Tuberculosis, MCH/FP, EPI, CDD and ARI were recognized as the priority areas for integration. The activity has been framed into four main phases, Planning, Implementation, Evaluation and finally Replication. The planning phase has been completed, and the implementation phase started with training of nearly 1800 different facility level workers to act as multi purpose health workers in 5 model districts.

Objectives

- To improve the existing capacity of LHWs and their supervisors in provision of quality health care services;
- To develop a model for a referral system at tehsil and district level;
- To improve the public-private partnership in delivery of health care services;
- To improve planning and management capacities of district health care professionals;
- To introduce a system of accreditation in the district health care system;
- To reduce maternal mortality in high-reporting districts;
- To reduce protein-energy malnutrition amongst children under 3 years in 10 high-reporting districts.

Activities and Outputs

During the biennium under review, WHO supported the development of the National

Programme for Family Planning and Primary Health Care, intensified efforts to promote Quality in Primary Health Care, advocated for partnerships and coordinated action in Maternal & Child Health, highlighted linkages between Health Sector Reform, Health System Development and Primary Health Care to raise awareness for the interrelatedness of all aspects, promoted the concept of Social Determinants of Health and helped its partners to strengthen the management capacities of the District Health Team. The following were the major supported activities and achievements during the biennium 2009 2009:

- **Involvement of LHWS in Routine EPI:** The GAVI HSS project focuses sharply on increasing the routine EPI coverage by training the nearly 100,000 strong cadre of Lady Health Workers on immunization, with a view to achieve at least more than 70% immunization coverage for children under two years of age. This activity alone has the potential to address the stagnant and poor child health indicators, with particular reference to the low national Routine EPI coverage in Pakistan (47 %, PDHS, 2007). In this context, a total of Rs. 129 million had been allocated in the first phase of GAVI HSS Project to train 18,122 LHWS in Routine EPI in 38 districts across Pakistan. The first batch of 1955 LHWS in three districts of Punjab has been fully trained and able to vaccinate children as of December 2009, while all the remaining batches will be trained during the first half of 2010 and all will be operational by Oct 2010. All the facility level trainings (LHWS) in all the districts are expected to conclude by October 2010. This important training activity has fostered an integrated planning and co ordination exercise amongst the three stakeholders, namely LHWS Program, EPI Program and WHO.
- **Zinc Supplementation:** High prevalence of childhood morbidity and preventable mortality is a source of major concern in Pakistan, despite some improvement over the past decade. Diarrheal diseases are a major contributor to the childhood mortality and account for more than 19 % of total deaths amongst children in Pakistan. Despite several child survival interventions like ORT, community outreach services (LHWS), diarrheal morbidity and mortality remains unacceptably high. Zinc plays an important role in reducing the risk, severity and duration of diarrheal illnesses. It provides substantial benefit in reducing the stool output and duration of disease coupled with safety, selectivity of action and low cost. The role of Zinc Sulphate becomes more pertinent in view of the rising antibiotic resistance and lack of vaccination for diarrheal diseases. In this context, Zinc supplementation through the LHWS, had been approved by the Ministry of Health. Through GAVI-HSS support, 4.2 million bottles of Zinc Sulphate syrup (20mg/ 5ml in 60 ml bottles), worth Rs.182 million have been supplied to the program for over 95,000 Lady Health Workers as of June 2009. The activity has been completed in a record time with orientation / training of 92,693 LHWS from Aug to Dec 2009 on the administration of Zinc Sulphate to children during diarrheal episodes. The addition of Zinc Sulphate along with ORT/ORS is expected to contribute substantially in reducing the childhood mortality and morbidity associated with diarrheal diseases.
- **Training on LHWS MIS software:** Review and up gradation of LHW MIS software has been undertaken through GAVI HSS resources. The national orientation workshop was conducted in Dec 2009. A total of 3 workshops are planned for AJ&K (Muzaffarabad), FANA (Gilgit) and NWFP (Peshawar) across Pakistan. On completion of workshops a

total of approx 50 managers and 60-65 data operators will be trained on the up graded LHWs MIS software.

- **Strengthening skills of health care providers:** An adequate number of doctors, nurses and paramedical staff have been trained on the standard modules of Integrated Management of Childhood and Neonatal Illnesses (IMNCI) and Emergency Obstetric and Neonatal Care (EmONC). A total of 380 health care professionals and providers are being trained on IMNCI and EmONC protocols. By virtue of these trainings, over 350 health facilities will be able to deliver these services. Earlier, the modules on Pregnancy Complications, Newborn and Child Care (PCPNC) were finalized and printed for the proposed trainings. Introduction of IMNCI for pre-service trainings has also been provided through two orientation planning workshops. So far 27 medical universities/college, 10 paramedical institutes and 15 nursing institutes have been involved in pre service IMNCI towards sustainability of providing standard management protocols for Child Health.

Technical documents

- Audit report on Quality Assessment of Pakistan Institute of Medical Sciences (PIMS)
- Review of Primary Health Care in Pakistan
- Presentation on Quality in Health Care at Health Expo Islamabad 2006
- Paper on Primary Health Care Research Fund
- Paper on Lady Health Workers Health Insurance
- Paper on National Quality Policy and Implementation Framework in Pakistan

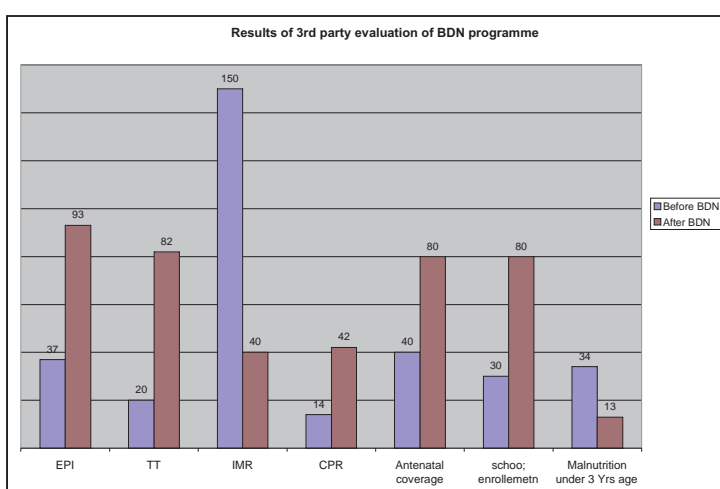
2.2 Sustainable Development Approaches - The Basic Development Needs Initiative

A critical intervention of the Government of Pakistan to adopt a holistic approach in order to improve the quality of life is the launching of the Basic Development Needs Initiative introduced jointly by the Ministry of Health in collaboration with the WHO and with the active support of the provincial and district governments and the communities, providing a way out of this perpetual vicious cycle of poverty and ill health. This was an acknowledgement of the fact that the health sector alone can not achieve the goal of Health-for-all in isolation, without tackling the several social determinants of ill health such as illiteracy, population growth, malnutrition, food insecurity and poor sanitation, which lie outside the formal scope of health. The World Health Organization Commission on Social Determinants of Health has been created to draw attention to the inextricable link between poverty and ill health. This complements our existing efforts to increase vulnerable people's chances for a healthy life, by acting upon the social and environmental causes of health inequities.



BDN has brought the people and communities within the developmental process, by imparting them the role of owners, planners and implementers. The program has persistently shown its capacity to plan, generate local resources, implement and manage hundreds of projects in the social as well as income generation sectors, while at the same time ensuring sustainability. The BDN community representatives are well equipped in management of the social and income generating projects designed by them on health, social welfare and other basic human needs like literacy, income generation and women development and empowerment through skill development, literacy, health awareness and income generation projects.

Program Achievements: The BDN Program has resulted in empowerment of communities leading to tangible successes within the realm of the health sector and other health-related sectors owing to volunteerism and imbibing leadership and participatory skills. The Program has demonstrated that proper mobilization of communities coupled with suitably employing a network of community volunteers, can significantly improve health and other socio-economic indicators. The program has shown improvements in social sectors, since its inception. EPI coverage has risen from 37 % to 93 %, TT II vaccination in Pregnant women from a mere 19 % to 82 %, infant mortality reduced from 150/ 1000 LB to less than 40 /1000 LB, contraceptive prevalence rose from



14 % to 42 %, prevalence of malnourishment in children under three years reduced from 34 % to 13 %, antenatal check up by skilled persons rose from 40 % to 80 %,. Similarly, primary school enrolment among girls rose from 30 % to 80 %, while Primary school drop outs reduced from 25 % to 13 %. Access to safe drinking water increased and sanitary latrines coverage doubled in the BDN areas.

Objectives

1. To promote health interventions through the bottom-up BDN approach where PHC and social projects have active participation of the community;
2. To ensure inter sectoral action required to effectively address the social determinants of health for comprehensive implementation of PHC concept.
3. To support the concept that health care can contribute to poverty reduction and generate local efforts to enhance the attainment of a better quality of life.
4. To support small-scale social development activities and use income generating projects as catalyst inputs to involve the poorest in participating in the BDN development process;
5. To generate greater district and community participation and action to community-based social development efforts to expand and sustain public sector inputs in this direction.

6. Empower the communities, especially women through Health, Education, literacy and skills

Activities and Outputs: During the biennium 2008-09, the main thrust of the MoH and WHO remained in the areas of program consolidation and expansion after availing the funds from Global Fund Round III amounting to 2.7 Million US Dollars. Efforts were made to prudently use WHO and Government and community resources for maximizing benefits from the program and expanding it to more areas. Two major inputs were planned and approved during 2008-09. A PC-1 amounting to 25 Million Pak Rupees was approved and implemented to expand BDN interventions in whole 2 districts of Dadu and Jamshoro in the province of Sindh. Besides, the funding window of GAVI CSO was utilized and an MNCH project was approved for the districts of Kasur, Multan, Mastung, Muzaffarabad, Neelum and Nowshera, where the BDN will support the efforts of the National MNCH program in reducing maternal and Childhood mortalities.

During the biennium 2008 09 efforts were made to improve skills of local village women in the BDN areas in handicraft, practice Home Health Care for better mother and Child Health care and make women literate through consolidated and expanded BDN activities where community is organized and motivated for participation in social action, in seven districts, namely Nowshera and FR Peshawar (NWFP), Kasur and Multan (Punjab), Mastung (Balochistan), Dadu (Sindh) and Muzaffarabad (AJK). The total population under coverage of the BDN in Pakistan has reached 2.7 million. Efforts remained on organizational strengthening and enhancing the capacities of the community representatives and BDN inter sectoral technical teams. The following were the major supported activities and achievements during the biennium 2008 09:

1. De-worming project: Two BDN model districts, Muzaffarabad and Dadu were established for management of intestinal worm infestation in 200 primary girls schools as part of Community School Health Initiative in partnership with local community, education and Health departments and World Food Program

2. Vocational centers: Strengthened 74 women vocational training cum literacy centres for enhanced quality of vocational products, literacy and health promotion and formation of 55 women village development organizations.

3. Program Expansion: carried out in 5 districts of NWFP The community representatives of all the seven BDN areas signed a 2.72 million US \$ grant agreement with the Global Fund to fight AIDs, TB and Malaria (GFATM) for the Prevention and control of Malaria and Tuberculosis through innovative community based strategies and public private partnership.

4. Need-based allocations assigned: Fund allocations were made to the different sectors based on the defined needs as determined with consensus of the community during the community based Participatory planning exercise.

5. Training conducted for community and health staff

- Facilitated training of 140 health personnel and 700 community representatives on TB DOTS and Roll Back Malaria in all BDN areas through Global Fund support.
- Supported training of 700 Women Health Volunteers on growth monitoring to identify

malnourished children and assisted community for action.

- Trained 350 LHWs in EPI, who were actively involved in routine EPI vaccination
- Trained 400 LHWs and Women Health Volunteers in Home Health Care
- Assisted in holding training courses for 320 existing and new VDC members on the BDN concept, and implementation in all BDN areas of Pakistan.

6. Orientation Trainings: 415 new VDCs and BDN team members underwent orientation on BDN strategies of participatory development in the expanded areas.

7. Training of Master Trainers in vocational and marketing skills: 15 Master trainers were trained in vocational and marketing skills, quality standardization, color and designs, costing, group management to enhance the quality of vocational products to market access.

8. Technical Support:

- Assisted community to complete fifteen clean **water supply and 75 sanitation projects** in seven BDN areas
- Facilitated establishment of three computer literacy centers in NWFP, Punjab and Sindh two MCH centers in the NWFP, one in Baluchistan and one in AJK and strengthening of 2 BHUs each in AJK and NWFP



9. Literacy and Education Centers:

Facilitated establishment of 15 centers in BDN areas.

10. Women Vocational Training Centers: Facilitated operationalization and strengthening of 74 centers in all BDN areas, where 3,510 ladies have been trained in handicrafts, embroidery and sewing and 1350 are currently under training.

11. Advocacy: 200 policy makers, media personnel and elected representative received orientation on the social outcomes of the BDN interventions. Moreover, Pakistan College of Physicians and Surgeons (CPSP) team along with post graduate trainees in areas of community health visited BDN sites and they were briefed on the process and outcomes of the program, which was highly appreciated.

12. Helped mobilize resources from the community and government sectors and other donor agencies, to match the JPRM resources and assure transparent utilization. Moreover, funds were also mobilized from GAVI CSO window through an elaborate proposal and strengthen MNCH services in BDN areas. The program is able to mobilize 0.6 Million US \$ through the GAVI CSO which will be implemented for its most parts in year 2010 though its implementation has taken off during 2009.

13. Community based Health Financing: Carried out a feasibility study on potentials of community Based Health Financing (CBHF) in the BDN areas and proposed related action plan.

14. Technically supported **Global Fund round III implementation of Malaria and TB components** during 2008 and the project was closed in June 2008. The program is also implementing Global Fund round 7 Malaria components currently, in its two districts of Dadu in Sindh and Mastung in Baluchistan provinces.

15. PC1s: Government of Sindh approved a major scale up of BDN activities into whole of two districts of Dadu and Jamshoro. The approved cost of the PC-1 for the scaling up is 25 Million Pak Rupees which are matched equally by the Government of Sindh and WHO. Its implementation has already started and demands to initiate some kind of evaluation in the coming future. WHO supported the MoH and Provincial Health Departments in the preparation of PC-1s for government funding.

A major PC I for the replication of BDN at the National level has been prepared at a total cost of PKR 1.7 billion, with the technical assistance of the WHO:

- Developed Training Material: Drawing on experiences from the EMR countries implementing CBIs, a training module was developed by EMRO, for training of the community representatives and BDN technical inter sectoral teams.
- Facilitated the process of registration of the VDC and BDN organizations as NGO.

16. Monitoring and supervision: Under the guidance of WR Pakistan, a team of international and national staff members was notified during the biennium to closely monitor and supervise the activities and suggest ways and means to improve its functioning for enhancing impact on indicators. The team was able to plan a monitoring and supervision plan and an intensive monitoring was carried out during 2008-09, including conduction of quality participatory planning profile workshops, which resulted in judicious distribution of resources amongst different geographical entities for maximizing results.

17. Expansion / Replication of BDN Program:

The Government of Pakistan has incorporated BDN in the Medium Term Development Framework (MTDF) as a means for sustainable health development and poverty reduction and has allocated PKR 1.2 billion. A PC-1 with a total cost of PKR 1.7 billion has been approved by the Ministry of Health, and the project document is currently being examined by the Planning Commission before placing it before the relevant forum for approval. The proposal seeks to replicate the program in the rural and peri-urban slums of 24 districts (43 Tehsils) throughout the country.

The Government of Sindh approved a revised PC-I at a cost of PKR 20.636 million for program expansion in district Dadu for 2001-05. Subsequently it has approved a new PC-1 with the total cost of PKR 25.5 million, for expansion and replication of BDN program in 5 tehsils (52 Union councils) of districts Dadu and Jamshoro during 2008-2009. This intervention has almost double the population covered by the BDN initiative in Pakistan.

The Government of Balochistan allocated an amount of PKR 13.5 million for program

expansion in district Mastung during the financial years 2002-2004, and efforts are still underway to get more resources for expansion through the government of Baluchistan Government of NWFP has allocated funds for replication of BDN in five districts Buner, Batagram, Bannu, DI Khan and Upper Dir in the ADP during 2005-07, but due to the law and order situation, the government was not able to channel that money for the expansion of BDN program.

18. Participatory Planning and Development Workshops: Community based planning exercises at the grassroots level have been undertaken in the BDN communities to evolve a shared vision and consensus on identifying local development needs, priority setting and allocation of resources, by the members of the Village Development Committees (VDCs), representatives of the district government, inter-sectoral BDN team members and other stake holders, for improving the health and social welfare conditions of the target population.

55 District and Union Council Nazims, 362 members of Village Development Committees (VDCs), 58 heads of concerned line departments and 25 BDN inter-sectoral team members trained in the subject. Needs prioritized and interventions in the form of 582 social and income generating projects identified for joint funding by community, GoP, revolving fund and WHO.

19. Partnership building: The BDN program has developed effective partnerships with grass root level communities, district, provincial and federal governments in addition to other civil society organizations and public sector institutions such as Khushhali bank and local development oriented organizations in order to expand the resource base and achieve better social indicators. Certain existing partners for the program include United Nations agencies such as United Nations Development Program, World Food Program, UNFPA, Lajnat-al-Dawa Al-Islamiah (LDI), in addition to non-governmental organizations at national level like Sarhad Rural Support Cooperation, Aurat foundation, and the Kashmir International Relief Fund.

21. Technical Documents Produced:

- BDN Bulletin - Health and Sustainable Development, September 2006
- Feasibility Assessment for Introduction of the Community Based Health Financing, March 2007
- Report on the establishment of Accounts and recording system at the Village Development Committee (VDC) and district level.
- Translation of EMRO Manuals for the training of CRs and community health volunteers on priority health program areas of Pakistan into urdu.

2.3 National Drug Policy (including vaccine quality)

Due to the rising export of pharmaceuticals from Pakistan, in the JPRM of biennium 2008-09 significant interest and consequent efforts were agreed to revise the National Drug Policy (NDP) with WTO and TRIPS agreements.

The following objectives were planned for the biennium 2008-09.

Objectives

- * The core objective is to implement the revised NDP in view of globalization and WTO/TRIPS
- * Reforms in NDP to ensure compliance with current global demands and agreements

(WTO/TRIPS); development of effective infrastructure to ensure compliance with policy objective in the light of pharmaceutical sector study

- * Capacity building for developing drug quality-assurance systems (including quality of biologicals)
- * Promoting Rational Use of Drugs (RUD) concept in the prescribed-community (pharmacists and doctors)
- * Development of management information systems (databases, decision support systems, and internet) for drug registration, licensing, imports (raw material consumption), and exports of pharmaceuticals.

Principal Activities:

The following principal activities were outline:

- * Implement the revised NDP in view of globalization and WTO/TRIPS
- * Industry reforms in the light of pharmaceutical sector study
- * Situation and gap analysis: cross-sectional analysis of pharmaceutical supply chain and recommendations for reforms for future policy direction
- * Guidelines development: promotion of RUD, essential drugs, and quality concepts through guidelines development and dissemination at academia level
- * Clinical guidelines: research and development of evidence based clinical guidelines and their dissemination amongst prescribed - community
- * Drugs and Biologicals testing: capacity building and development of format drug-quality testing and reporting mechanisms (quality scorecards for drugs)
- * Development and strengthening of hospital pharmacy through training of personnel on pharmacy systems design and improvement
- * Awareness on WTO/TRIPS, its implications on access to medicals, drug production and exports for stakeholders
- * Procurement, printing and dissemination of relevant publications and supplies.
- * Training: Organization of training workshops/seminars on Quality management i.e. Good Manufacturing Practices, Good Laboratory and Storage Practices, RUD

Indicators:

In this biennium, the following indicators were set for implementation of the activities:

- * Implementation of revised policy documents in the light of globalization and WTO/TRIPS
- * Dissemination amongst the stakeholders about the implication of the WTO/TRIPS and subsequently promulgation of appropriate laws to increase the access to drugs
- * Establishment of GCP inspection system
- * Awareness about RUD and NEDL will be created in the upcoming pharmacy and medical graduates
- * Strengthening of NRA in the light of WHO recommendations
- * Reference books will be made available to the Drug and biological testing laboratories
- * Personals trained for inspecting pharmaceutical and biological producing facilities
- * Human resource developed for compliance to GMP, GLP and GSP in the manufacturing units
- * The capabilities of drug testing laboratory personnel enhanced through training
- * Post marketing surveillance of biological.

Outputs

1. During this biennium 2008 - 09, WHO EMRO issued an APW for Graphic Design and Layout as part of the EMP workplan for the production of regional publications. The incumbent was required to perform the following:
 - Develop and implement the Graphic Design and Layout of the publication entitled "Public Health Related TRIPS-Plus Provisions in Bilateral Trade Agreements."
 - Provide EMRO with a hard copy and press quality electronic copy of the final design and

layout for printing and production.

2. Second APW was issued for Design and Development of Ministry of Health's Website.
3. A third APW was issued for Strategy development for safe waste management and initiation of its implementation.
4. Fourth APW was issued for developing framework for therapeutic goods regulatory administration.
5. National Training Activities were not carried out due to DFC issue.
6. Proposal for supplies and equipment raised by the programme was processed and procurement has been made from international market.
7. International workshop for manufacturer and regulators on dossier development.
8. Workshop on bioequivalence studies for industry and regulators.

Owing to the increasing export of pharmaceuticals from Pakistan, in the work plan of 2008 - 09 considerable interest and subsequent efforts were given to revise and realign the National Drug Policy (NDP) with WTO and TRIPS agreements. For the first time since the first draft of NDP came out in 1996, the Ministry of Health took the initiative of organizing a national meeting of experts/ stakeholders to devise means for revision of NDP and the master plan for its implementation. The need for reforms were critically analyzed, discussed and prioritized; consensus was achieved on certain issues and experts unanimously felt that greater resources needed to be mobilized to expedite the implementation of NDP.

The key issues include; Licensing of new manufacturing plants, increasing prescription drugs usage within the country and rising exports necessitate formal quality-testing and reporting mechanisms to ensure quality drugs for the end user, therefore, the current plan stresses on quality assurance initiatives on a system-wide basis: ongoing programs based on ensuring access to essential drugs and promotion of rational use of drugs.

Any step towards revision of the NDP is only possible if a fact-finding broad-based situation/ gap analysis are conducted on existing infrastructure and practices- NEDL and availability of drugs, manufacturing-, testing-, marketing-, storage-, advertising-, and prescribing practices- along the continuum of healthcare and the pharmaceutical supply chain.

Major future directions in the areas of essential medicine and national drug policy are; capacity building efforts based on a through gap analysis of current trends versus global demands (WTO/TRIPS), strengthening of drug supply systems through developing hospital pharmacies and storage systems, formal mechanisms of quality-testing and reporting, and bolstering and adaptability of RUD concept. The current work plan is unique in that in addition to addressing provider (health systems and prescribers) issues it introduces academia - focused interventions- curriculum development, research and publication of Standard Treatment Guidelines (STGs).

Objectives

- To implement and monitor the National Drug Policy;
- To promote rational drug use and prescribing;
- To strengthen the national quality control system of Biologicals;
- To evaluate the quality and use of available drugs through operational research;
- To develop human resources in drug quality and rational use of drugs;
- To develop a database on drug (registration/licensing/import and export) and NDP

components.

- To establish an independent Drug Regulatory Authority

Activities and Outputs

During biennium 2008 -09, WHO facilitated the formulation and implementation of a National Drug Policy based on Essential Drugs List including vaccine quality and production, promoting rational use of drugs and bringing about an improvement in drug prescribing practices; reporting of adverse drug reactions and post market surveillance systems, strengthening of drug registration and licensing system in Pakistan. Technical support was also provided for the establishment of Drug Regulatory Authority. The following were some of the major activities and achievements in the biennium 2006-07:

1) Drug Regulatory Authority: Pre-assessment of NRA was conducted by WHO consultant for accreditation purpose. Draft plan for establishing an independent Drug Regulatory Authority (DRA) was reviewed and consultations continued in the light of study of licensing, verification, evaluation and monitoring of the pharmaceutical sector. A high level mission from MoH visited some of the regional countries to benefit from their experience in this regard. These landmark developments in the area of independent drug monitoring and regulation will lead to availability of quality drugs at reasonable cost.

3) Review and implementation of National Drug Policy: The national drug policy of Pakistan is under continuous review in the light of changing global and national scenario. WHO supported establishment of infrastructure for at federal and provincial levels for efficient and effective implementation of NDP through provision of office supplies, printing material to five NDP units at Federal and Provincial levels, Creation of websites on Drug policy and management, Supervisory visits for monitoring implementation process at the Federal and Provincial levels and training workshops for the joint evaluation of NDP implementation.

4) Quality Control and Strengthening of National Control Laboratory (NCL): through development of guidelines for inspection and sampling procedures, hands on training on quality system using a WHO regulatory guidelines and lot release, updated and finalize the regulatory guidelines for biological drugs, Logistic support for strengthening NCL, purchase of reference Books and pharmacopoeia and technical journals for NCL, post marketing surveillance of Hepatitis B Vaccine available in the market and a study to evaluate storage facilities performance of cold chain system for Biologicals.

5) Improvement in drug prescribing practices: through awareness of prescribers and public and preparations of guidelines for good prescribing practices. Production of bulletins on drug information for distribution to drug prescribers in public and private sector and establishment of Adverse Drug Reaction reporting and post market surveillance systems

6) Data base on Drug Registration, Licensing, Import, Export established: Development of a system for data collection and its organization with regard to drug registration and licensing information. Purchase of computers, printers, photocopier and related equipment for Drug Control Organization/MOH and data entry on licensing, registration, pricing and raw material.

7) Trainings Conducted:

- Organized workshops on Good Manufacturing Practices (GMP), Good Laboratory Practices (GLP) and Good Storage Practices (GSP) and provision of laboratory reagents to provincial laboratories.
- Supported training of physicians on the rational use of drugs and prescribing practices.
- Held consultative meetings with stakeholder on quality assurance.
- Supported training of master trainers on national drug policy.

8) Technical Documents Produced:

- Pakistan Drug Updates - 2006 - National Drug Policy Program
- Pakistan Drug Updates - 2007 - National Drug Policy
- Printing of National Drug Policy
- Printing of National Drug Bulletin

2.4 Traditional Medicine

Traditional medicine is part of Pakistan's cultural heritage and has played a significant role in providing health care to a large segment of the population. Over the last few decades there has been a considerable interest worldwide in traditional medicines particularly in herbal medicines. The World Health Organization also advocates the important role of traditional medicines in preventive, promotive and curative aspects of health for a large proportion of the population, especially in developing countries. In the last few years the Ministry of Health and National Institute of Health in collaboration with WHO has taken up this issue and developed proposals for a comprehensive policy on Traditional Medicine and strategies for utilization of traditional medicine in the mainframe health care system.

Traditional medicines and practices in Pakistan primarily belong to two categories, namely Tibb-e-Unani and Homoeopathy. The colleges of traditional medicine award diplomas to students graduating from these colleges. The number of students enrolled currently is about 4,200, with an annual output of about 900. Traditional medicines are widely made in Pakistan with more than 500 manufacturing plants producing about 5,000 medicines.

National Institute of Health has established a center for research on plants where hakims, doctors and scientists are collaborating. Research is ongoing in colleges of traditional medicine, schools of pharmacy and research institutes in Pakistan on the safety and efficacy of several traditional medicines used in the country. The Hamdard Foundation has already published two, of the planned 24 volumes of *Planta Medica*.

Objectives

- To encourage and strengthen evidence based research on traditional medicines
- Harmonization between modern and traditional medicines
- Establishment of digital library for the protection of traditional knowledge
- To train manufacturers for the GMP, QA and good laboratory practices for traditional medicines
- To create awareness about the implications of WTO/TRIPS
- Establishment of botanical/herbal garden and enforcement of good agricultural and field collection practices for medicinal plants and creating awareness, orientation and display of traditional medicines

- Implementation of national policy on traditional medicines

Activities and Outputs

During the biennium 2008-09, WHO assisted in developing a plan of action for the implementation of national policy on traditional medicine and preparing list of essential traditional medicines, develop protocols for clinical trials on traditional medicines and capacity building of TCAM practitioners and develop good agriculture practices and field collection practices for medicinal plants. The following were the major supported activities and achievements during the biennium 2008-09:

1. Finalization of Master Plan on National Policy on TRM:

The Master Plan for the implementation of National Policy on Traditional Medicines has been finalized on the basis of the recommendations proposed earlier for the National Traditional Medicines Policy and Regulation and will be submitted to Ministry of Health for onward submission to the Federal Cabinet for its formal approval.

2. Legislation Development and Subsequent approval:

A piece of legislation entitled "The Tibb-e-Unani, Ayurvedic, Homoeopathic, Herbal and any other non-allopathic drugs Bill 2005" to regulate the manufacture, storage, import and export of Traditional Medicines has been approved by the Federal Cabinet and Standing Committee on Health of the National assembly and awaits approval by the Parliament.

3. Good Agriculture and Field Collection Practices:

Guidelines on Good Agricultural and Field Collection Practices (GACP) for Medicinal Plants have been prepared.

4. Inventory Preparation:

Inventory of the commonly used medicinal plants in Pakistan has been prepared.

5. Training Manuals developed:

- A manual for the training of collectors for the collection of medicinal plants
- A manual for sustainable cultivation, preservation, propagation and collection of medicinal plants
- A manual to conduct clinical trials on traditional medicines
- A manual containing GMP and QA guidelines for the Traditional Medicines

6. Standards and Guidelines Developed:

- Assisted formulation of National Policy and Plan on traditional medicine
- Prepared a list of essential traditional medicines.
- Finalized a draft of the Tibbi-e-Unanni Ayurvedic and Homeopathic Act-2003 to regulate manufacture storage, import and export of traditional medicines. Submitted this to the provinces for their remarks.
- Started development of standards and specification for a single medicine plant which will form the basis of Tibbi pharmacopoeia.

7. Publications: Monographs on Unani medicine produced.

8. Technical Documents Produced: Traditional Medicines Policy and Regulation March 2003

2.5 Health Laboratory Support

Worldwide, the surveillance of communicable disease is thought to be the responsibility of the Governments since these diseases may spread quickly resulting in colossal losses of life and disruption of economic activities. A vibrant response is expected therefore on an international scale from the states for disease surveillance and control under such conditions. A focused response however is possible with the help of well-equipped and resourceful public health laboratories. To meet this challenge effectively, the laboratory services need continued improvement through capacity building at various levels of health care delivery system. A total of 50 central, 865 intermediate and 4997 peripheral laboratories are functional in the public sector of Pakistan. The public sector laboratories in general, however, require strengthening and networking in view of the challenge of emerging/ re-emerging diseases and complex emergency situations.

The Public Health Laboratories Division (PHLD) of National Institute of Health (NIH) plays a pivotal role as hub of PHL service activities in Pakistan both for diagnostic and training purposes under the mandate given by the Government of Pakistan, Ministry of Health for routine and specialized diagnosis, investigation of epidemic outbreaks, disease surveillance and training of laboratory personnel. The PHLD is also extending laboratory diagnostic support to Afghanistan for the diagnosis of viral haemorrhagic fever and out breaks of other infectious agents. The WHO Regional Reference Laboratory of Public Health Division, NIH, is diagnosing and providing advice on acute flaccid paralysis for polio eradication to the EPI Pakistan and Afghanistan. The Microbiology department of PHLD is also implementing the Bacterial meningitis surveillance programme through provincial sentinel sites. The PHLD is also implementing a Influenza Surveillance Project through the assistance of CDC, Atlanta. The Field Epidemiology and Laboratory Training Programme (FELTP) Pakistan is also housed in the Public Health Laboratories Division of NIH with the objectives to train public health officers in disease surveillance, outbreak investigation and response. An Epidemic investigation cell is functional in the PHLD since 1998. A task force for the control of communicable diseases has also been constituted and meets regularly. The PHLD has started participating in WHO Regional QA scheme for microbiology during 2005 and continued during biennium 2008 - 09.

Objectives

- Disease prevention and control using routine and specialized public health laboratory medicine tools
- To act as national training base for the discipline of laboratory medicine
- Assist development of national standards/policy on various aspects of public health laboratory medicine
- Participate in international and regional WHO QA schemes for microbiology, haematology and clinical chemistry quality assurance/ control programme in laboratory medicine.

Activities and Outputs

During the biennium 2008 - 09, WHO provided technical support to improve the quality of diagnostic services through capacity building and observing laboratory standards on bio-safety and linking of NIH with the selected peripheral laboratories in public sector.

1) National strategic plan for public health laboratories network: was finalized by 20 public health specialist and laboratory medicine experts through consultative workshops

2) Established a **computer network system** to communicate the departments of main building of PHLD, which could be replicated at designated satellite laboratories

3) Capacity building Training Activities:

- Strengthened diagnostic, research and training capacities of 150 pathologists, scientists and medical microbiologists through workshops.
- Refresher course for 43 laboratory technicians to update their knowledge and skills.

4) Planning and logistical support:

- Support in terms of trainings and supply of laboratory reagents, antisera, media and other consumables to the identified centers (satellite labs).
- Established a computer network system to communicate between the departments of main building of PHLD, which could be replicated at designated satellite laboratories.
- Advocacy and planning process at Provincial/AJK/ Northern Areas headquarters to operationalize the strategic plan for public health laboratories network
- Identified 10 regional laboratories to work with the central NIH laboratories.

2.6 Blood Safety

According to current estimates about 1.2 - 1.5 million blood bags are being transfused annually in Pakistan. About 50% transfusions are being carried out in the private sector. In Pakistan, an administrative structure for the blood transfusion services exists only in the largest province of Punjab (54% population). Blood transfusion services are, however, practiced down to the district level in the provinces of Sindh, NWFP and Balochistan and function under the administrative, technical and financial control of the hospitals in which they are located.

Activities and Outputs

During the biennium 2008-09, WHO provided technical support to improve the safety of blood and blood products through capacity building and observing standards on bio-safety. The following were major supported activities and achievements during the biennium 2008 - 09:

1. Capacity Building: Blood Bank Specialists/officers and laboratory scientists trained through training courses.
2. Guidelines on blood donor recruitment, selection of blood bank equipment and QA in blood banks developed
3. The National Blood Transfusion Committee has been established.
4. The National Blood Policy and Strategic Framework 2003-08 has been approved by the NBTC. This document was prepared with active collaboration of the WHO in September 2002.

C. Health Promotion and Protection

3.1 Health Promotion (Including Oral Health, TFI and School Health)

1) Health Promotion

Pakistan is undergoing rapid changes in burden of diseases. Lifestyle related non communicable diseases are spreading fast. Data on prevalence of non communicable diseases is scarce. But some surveys have shown that mortality, morbidity, and disability attributable to the major non-communicable diseases account for nearly 50% of all deaths. These rates are expected to rise.

Health promotion focuses on lifestyle related diseases including heart ailments, cancer, diabetes, high blood pressure, injury, violence, and mental problems. The Health Promotion Programs include public health education for promotion of healthy lifestyles, tobacco control, health promoting schools, mental health, oral health, environment, sanitation etc.

Achievements:

Health Promotion concept is picking up in Pakistan. Currently the health promotion activities are being carried out both in public and private sector. During the Biennium 2008-2009 the provinces were helped to launch health promotion as an integrated component of all the health programs.

Capacities were developed through provision of Health Promotion materials, trainings and technical advice. Four Workshops on Health Promotion were held in Karachi, Lahore, Islamabad and Jallozai.

Health Education Units are being strengthened to undertake health promotion activities. The WHO, has been helping Pakistan to set up a health education infrastructure. One Federal Health Education Unit, 4 Provincial Health Education Units, and 63 Health Education Units at district level, in various health programs and in the teaching medical institutions are available. Technical assistance provided to 68 Health Promotion and Education units at National, Provincial and District level

Health Promotion and Education has been made an important component of priority programs being undertaken by the Ministry of Health and Provincial Health Departments. More than Rs.250 million (\$ 3.00 million) are spent every year for health education programs. Health Promotion has also been made a part of the One UN One Program. Alliance built with the stakeholders i.e. the education



The inaugural Session of the Health Promotion Workshop held in Lahore in December 2009



and environment sector; media Health Forums, religious leaders, teaching institutions, religious leaders and NGOs. World Health Days 2008 and 2009 were celebrated by organizing different events i.e. symposia, media coverage, city branding and walks. Strategies and Plans of Action for Health Promotion were developed.

Special events were held to mark important occasions i.e. World Health Day, World No Tobacco Day, World TB Day etc. These events included branding of the TV and radio channels, cities. News Papers, concerts, seminars, rallies, walks etc

Health Promotion made part of the Joint Program of One UN One Program; The Ministries of Health, Education and Environment have already signed the Work Plan for Health Promotion for the year 2009-2010. The WHO has made commitments to contribute to the Health Promotion, School Health, Occupational Health, Oral Health, Nutrition and Tobacco Control. These Health Promotion activities will be jointly delivered under Joint UN Program on Health and Population (JPC 3).

Health Promotion helped in promoting hygiene, use of safe water and use of toilets in the camps of the Internally Displaced Persons (IDDPs)

Four Health Promotion and Education Teams were trained and deployed in the Internally Displaced Camps in Jallozai, Plosa Charsadda, Benazir Camp in Noushehra, and Kacha Ghari in Peshawar. The teams were responsible to educate the affectees in the health matters. Health Education materials were produced and distributed. The Teams were able to set up Volunteers Committees in the camps

Future needs:

There is a need to provide assistance to make the health education component of Health Promotion more effective, through provision of resources i.e. technical Assistance, funds, materials and guidance. There is a need to update / develop Strategies and Plans of Action for the years 2010 and 2011 to implement and monitor the Joint Program under the auspices of the UN. Human Resources Development (HRD) in health education and health promotion is also needed. There is also a need to make health promotion programs evidence based, target oriented and time bound. All these activities need more and more technical assistance from the WHO and other UN partners.

2. School Health Program

2.1. School Health Program is now being planned and delivered with the assistance of Joint Program of the One UN Pakistan:

During the Biennium 2008-2009, School Health Programme was also made a component of the JPC3 being launched under the One UN One Program. The School Health program is picking up. Some districts have launched School Health Programs in a big way. It is being implemented in the schools of the Islamabad Capital Territory and in the areas of Basic Development Needs (BDN) Program. Nearly 12 districts have started School Health interventions with the help of trained teachers and health workers. The Health Department Punjab has started School Health Program under the Health Sector Reforms.

Achievements:

During the Biennium 2008-2009 Provinces and the Federal Directorate of Education were

assisted to launch School Health Program. School Health Plans of Action were prepared in all the provinces and some selected districts. Four Workshops on School Health were organized. Following were the products of the workshops:

1. National and Provincial School Health Strategies developed
2. Implementation of the Work Plans for School Health developed during the last Biennium continued.
3. Guidelines for School Health have been chalked out and being finalized with the partners.
4. Advocacy kit for School Health drafted.
5. Alliance built with the Ministries of Education, Environment and NGOs working for the School Health.
6. Five UN Agencies are now working for the school health program i.e. UNICEF, WHO, UNESCO, WFP and UNFPA
7. School Health has been incorporated as an important component in the Education Policy announced in 2009 by the Ministry of Education
8. School Health has been incorporated in the Health Policy in the offing.
9. Workshops on School Health are an ongoing feature in which the human resources are trained for launch of School Health Program. A National School Health Workshop was held in PC Bhurban participated by the Ministries of Education, Environment and Health, UN Partners and Provincial counter parts.

Future needs to accelerate School Health Program:

Following strategies are needed to be adopted to improve the school health program:

1. Build consensus on the roles and responsibilities for the School health Program amongst the Public Sector ministries, Private Sector Schools and the One UN partners.
2. Make health an integral part of school curriculum
3. Create a culture of health promoting schools
4. Make school health, strategic and evidence based program
5. Develop capacities in the Health and Education Sectors for planning, implementation and coordination of School health program
6. Advocacy for the school health to be continued to win good will of the policy makers at federal, provincial and district level.
7. A long term School Health Plan of Action needs to be developed and implemented.

3. Tobacco Control

3.1. Situation Analysis of Tobacco Free Initiative in Pakistan:

Tobacco use in Pakistan has become a serious public Health Problem. It is estimated that more than 29 million people use tobacco in one form or the other. Different surveys have shown that nearly 42 percent of adult male and 9 % of females smoke or use tobacco. Increasing trend of smoking in young girls is a matter of great concern. Few years ago the ratio of smoking amongst men and women was 7:1 meaning there were seven men smokers as compared to one female smoker. This ratio has decreases to 2:1 meaning now for every two men smokers there is one female smoker.

Pakistan has made significant achievements in Tobacco Control Program

A good health education program has been going on since 1981. Three Ordinances have been promulgated to curb smoking. Rotational Health Warnings on cigarette packs are being printed. Smoking has been banned in all public places including transport. Sale of cigarettes to minors has

been prohibited. Many restrictions have been placed on advertisement of tobacco.

Achievements:

Significant achievements have been made in the implementation of the Tobacco Control during the Biennium 2008-2009:

- Pakistan won the Bloomberg Grant of US \$.5 million for the Tobacco control Program of the Ministry of Health, and two NGOs.
- Two persons involved in Tobacco Control were trained at the University of Johns Hopkins during the Summer of 2009 at Baltimore.
- A culture of no smoking is being created through a well planned tobacco control program run by the newly established Tobacco Control Unit headed by the Director General Tobacco Implementation.
- Tobacco Control has also been made a part of the Joint UN Program.
- Alliance built with the Higher Education Commission, universities and teaching education institutions for enhancing the efforts for Tobacco Control Program
- Strategic Guidelines for tobacco control program developed.
- Changes in the existing tobacco related laws proposed to bring them in conformity with the Framework Convention for Tobacco Control
- The Ministry of Health has withdrawn the permission allowing designated areas.
- Tobacco industry stopped by law to give any free goods, cash rebates, free samples, discounts or the goods below the market value to the consumers of tobacco products
- The Ministry of health has decided to introduce pictorial health warning wef May 31, 2010
- Pakistan has signed and ratified the FCTC. Nearly 60 % of the articles of the FCTC are being fully implemented as shown in the following table:

Successfully implemented articles of the FCTC	Partially implemented articles	Articles which are not being implemented
<p>Article 5 , Strategies and POA and coordination mechanism: A Tobacco Control Cell has been established. Provincial Focal points nominated National, Provincial and District Tobacco Control Implementation Committees</p>	<p>Article 14 , Demand reduction through cessation:</p> <ul style="list-style-type: none"> ➤ Guidelines for cessation clinic formulated ➤ One expert trained in UK. Local trainings are being planned. ➤ Few large health institutions have set up cessation clinic. 	<p>Article 9 on regulation of contents. No action has been initiated so far.</p>
<p>Article 6 Tax measures : The Government has been increasing taxes in incremental way</p>	<p>Article 15: Illicit trade:</p> <ul style="list-style-type: none"> ➤ Ministry of interior and Federal Bureau of Revenue control the illicit trade ➤ Still smuggling of tobacco products is going on. 	<p>Article 10 Product regulation Services of an independent Legislation needs to be revised to accommodate this Article</p>
<p>Article 8: Protection from Exposure:</p> <ul style="list-style-type: none"> ➤ Smoking prohibited by law in public places and transport. ➤ Movement launched to declare 100 % smoke free institutions 	<p>Article 18 : Protection of environment:</p> <ul style="list-style-type: none"> ➤ Several government and private sector organizations have been working to control the environment ➤ The government has prohibited smoking in the public places and public transport 	<p>Article 17: Viable alternative</p>

<p>Article 11: Packaging and labeling</p> <ul style="list-style-type: none"> ➤ Three Health Warnings on the packages have been printed so far on rotational way. ➤ Fourth Pictorial Health Warning will be printed wef. 1st February 2010. 	<p>Article 20: research:</p> <ul style="list-style-type: none"> ➤ 4 National level research studies have been conducted ➤ National Level Research Study (GATS) is planned with the help of the WHO and CDC 	<p>Article 19 :liability suits</p>
<p>Article 12: Education Communication:</p> <ul style="list-style-type: none"> ➤ Government provides annual budget for public health education. ➤ All channels of communication are being used 		
<p>Article 13: Advertising, promotion and sponsorship:</p> <ul style="list-style-type: none"> ➤ Sponsorship of sports by tobacco industry stopped. ➤ Tobacco advertisements are no more in the electronic media and 		
<p>Article 13: Advertising, promotion and sponsorship:</p> <ul style="list-style-type: none"> ➤ Sponsorship of sports by tobacco industry stopped. ➤ Tobacco advertisements are no more in the electronic media and news papers. ➤ Strict guidelines issued for tobacco advertisements 		
<p>Article 16 : Prohibition of sale to minors:</p> <ul style="list-style-type: none"> ➤ Law prohibits sale of tobacco products to minors 		
<p>Article 21: Reporting and Exchange of Info.</p> <ul style="list-style-type: none"> ➤ Regular reports are sent on implementation of the FCTC and the Ordinances 		
<p>Article 22:Cooperation:</p> <ul style="list-style-type: none"> ➤ Government is committed to extend full cooperation in tobacco control measures 		
<p>Article 23: Oversight:</p> <ul style="list-style-type: none"> ➤ The Governments of Pakistan has been a partner of global efforts of oversight on tobacco use. 		

The government has done extremely well in enhancing the tobacco control program. There is need to accelerate the implementation of the “Prohibition of smoking and Protection of Non Smokers Health Ordinance 2002 and the FCTC. There is a need to break myth of revenue generation by tobacco industry which is not enough even to set off the cost on the treatment of the diseases caused by tobacco use. There is also a need to demonstrate direct link between smoking and poverty. Poor smokes more, they remain sick, earns less and spends more on treatment of diseases caused by tobacco use. There is a need to make the TFI evidence based, create multi sector collaboration, build partnership, and launch advocacy interventions to bring the TFI high on the agenda of the government, use research findings to make the messages more targeted. Health Education Strategies are needed to be updated and plans prepared.

3.2 Mental Health / Substance Abuse

Mental and behavioral disorders are common and can affect any age group at some time during their lives. Mental illness constituted 12 percent of the total disease burden world wide in 2000 and it is projected to increase to 15 percent by the year 2020. This does not include the significant 1.4 percent of the burden due to suicide attempts and completed suicide.

Mental and behavioral disorders are also common during childhood and adolescence and inadequate attention has been paid to this area. The prevalence of mental and behavioral disorders has been investigated in various studies and about 10-20 percent of all children have one or more mental or behavioral problems. Similarly the mental health of the elderly has recently been considered. The risk of some disorders including Alzheimer's disease increases with age and its costs to the society are already massive.

In Pakistan as many as 67 percent of women and 25 percent of men in the community suffer from psychiatric illnesses at any given time. About 6 out of 1000 children aged 3-9 suffer from severe mental retardation. The mental health service provision is currently reliant on 320 psychiatrists based in major urban centers. Currently about 400 clinical psychologists are available in the country and only 52 trained psychiatric nurses.

Pakistan was the first country in Eastern Mediterranean region to have developed a National Mental Health Programme in 1986 with the objectives of making mental health services available to the people, promotion of mental health literacy and prevention of mental ill health. The strategies to achieve these objectives included community involvement, integration of mental health in Primary Health Care, promoting collaboration across sectors like education, social welfare, judiciary and the NGOs.

The promulgation of the National Mental Health Ordinance 2001 has provided a firm footing for the integration of mental health in primary health care with special emphasis on the rights of the mentally ill. In light of this situation, the only practical way forward is the integration of mental health into PHC. In recognition of its pioneering work in this area, the Institute of Psychiatry, Rawalpindi Medical College has been designated as a WHO Collaborating Center.

Substance Abuse:

Over the last 25 years substance abuse has assumed the dimensions of a public health problem which is not only due to the sheer number of persons affected but also due to the demographic characteristics of the persons afflicted with the problem. It is estimated that about 04 million people in Pakistan are currently abusing different substances (the most common is heroin). The overwhelming majority of these people are under 35 years of age males. Studies have shown that intravenous use of drugs is also on the rise particularly in urban slums, which also raises the risk of Hepatitis, tuberculosis and HIV infections.

Studies carried out in Pakistan to identify the risk factors associated with substance abuse have shown that family history of substance abuse, childhood abuse, coercive parenting, low educational attainment and unemployment are associated with increased risk of substance dependence. Similarly it has been seen that substance abuse is associated with a number of maladaptive patterns of behaviors and lifestyles like promiscuous and unsafe sex and indulging in high-risk behaviors.

There are a number of agencies involved in providing treatment facilities including a number of NGO's however no standard treatment guidelines exist nor is there unified national plan of action stressing the demand reduction aspect of this public health problem which has recently being agreed upon for inclusion in HMIS. The health care system is not well involved in prevention and treatment of substance abuse. In light of the above said it is imperative that the national programme should provide the lead.

Objectives

1. Promulgation of mental health ordinance;
2. Integration of mental health/ substance abuse in district health system;
3. Promote public awareness on mental health/substance abuse;
4. HRD on mental health/ substance abuse.
5. Programme evaluation

Activities and Outputs

During biennium 2008-09, WHO facilitated integration of mental health into primary health care in five selected districts of the country, helped to counter stigma and discrimination faced by mental health patients through the use of media; mental health practice was streamlined and a code of conduct established in accordance with the Mental Health Ordinance 2001. Substance abuse rehabilitation centers were also strengthened. The following were the major supported activities and achievements during the biennium 2008-2009:

1. **Expansion of mental health programme in five BDN districts:** Through meetings of multi disciplinary national coordinators, training workshops for PHC physicians in five BDN districts and training workshops for paramedical staff
2. **Substance abuse rehabilitation centers** were also strengthened through provision of equipment and ward maintenance.
3. **Strengthening of National Resource Center (NRC):** NRC at Institute of Psychiatry/Rawalpindi) was strengthened through provision of logistical support, Maintenance of mental health website. Setting up of an Audio Visual Library & an audio

visual studios and close circuit television and Renewal of subscription for psychiatry journals and Medline.

4. **Integration of Mental health programme:** Through meetings of multi disciplinary national coordinator group to discuss programme implementation and progress, fellowship training for junior psychiatrists & PHC physicians of pilot districts, training workshop for paramedical staff on diagnosis and reporting data on mental illness, Printing and publishing education and awareness materials for the PHC Physicians & community
5. **Training Activities:**
 - Provided audio-visual aids for training courses for doctors.
 - Developed training manuals on mental health.
 - Trained different cadres of health staff on community mental health.
 - Trained master trainers for integration of mental health programme into PHC.
6. **Evaluation of Integration of Mental Health into the Primary Health Care System:** was conducted during 2008-09 which showed that various indicators developed for the programme indicates the success and feasibility of the programme and a possible integration into the primary health system nationally. The economic evaluation has shown that the programme is feasible and helpful in combating the economic burden of psychiatric diseases in developing countries.

3.3 Nutrition and Food Safety

Pakistan is the most populated country in the Eastern Mediterranean Region, with a population of 170 million and accounting for more than 30% of the regional population. The average adult literacy rate is just above 50% with an urban bias and significantly lower female literacy (32%). The level of socio-economic development is still low; Human development Index is 142nd in the world and 25% of the population live below the poverty line.

Nutrition has been identified as a priority area by GoP and addressed through the different projects, PRSP and MDGs plans. Ministry of Health has established a Nutrition Wing to fulfill its commitment towards improving and coordinating nutrition related activities inter and intra sectoral. Malnutrition in Pakistan is directly and indirectly responsible for almost 50% of all deaths in children below the age of 5 years. Surveys indicate that over the past 20 years there has been very little change in the prevalence of malnutrition in the under five. These may be related to issues that impact intra-household food security and socio-cultural determinants affecting dietary patterns in pregnancy and early childhood. Available data also indicate high prevalence of malnutrition and anaemia among the childbearing age, based on body mass index.

Several regional surveys have indicated the wide prevalence of micronutrient deficiencies such as iron, iodine, zinc and vitamin-A. Surveys conducted among pre-school children, women of childbearing age and infants had indicated 50% prevalence of anemia and zinc deficiency. These deficiencies indicate a combination of dietary deficiency, poor maternal health and nutrition, high burden of morbidity and low micronutrient content of the soil especially for iodine and zinc.

The strategy identified in the Pakistan Nutrition Strategic Plan (2004-05) has outlines eight core issues and problems areas. These are lack of optimal breastfeeding practices; nutrition issues pertaining to low birth weight babies, infectious diseases especially diarrhoeal disorders and acute respiratory infections; lack of integrated approach towards child health; lack of adequate weaning practices and complementary feeding; household food security and gender inequity micronutrient deficiency; worm infestation absence of well defined school health program, water and sanitation inadequacy.

Priorities for collaboration during 2007-08

- Advocacy for exclusive breast feeding and timely and adequate complementary feeding
- Implementation of the Breastfeeding ordinance 2002
- Improvement in the health and nutrition status of the population through the development of an appropriate national food and nutrition policy
- Promotion of healthy diets and active living leading towards reduction of obesity nutrition related non communicable diseases.
- Promotion of infant and young child nutrition and updating/endorsing IYCF
- Addressing micronutrient/minerals problems; flour fortification and food diversification.
- Nutrition response in humanitarian crises.
- To develop Food safety standards

Achievements

Nutrition wing of the Ministry of Health and WHO were able to conduct the following activities in area of nutrition:

- Along with the World Bank and other partners, WHO was able to produce a concept proposal for the extended nutrition program to be evolved as government planning document.
- WHO in collaboration with the nutrition wing of the MoH designed a nutrition surveillance system and is in process of implementing it soon, with support of partners and NGOs and MoH.
- Nutrition wing with the support of WHO conducted training of health care providers on treatment of severe malnutrition in NWFP and Sindh province.
- Nutrition wing with support WHO conducted training of health care providers on treating children in stabilization centers in accordance with CMAM guidelines.
- Ministry of health with the support of WHO and UNICEF was able to finalize national CMAM guidelines.
- A support is provided to nutrition wing of the MoH to conduct global breastfeeding weeks during 2008-09.
- Nutrition wing with the support of WHO finalized the rules of business under the “National Breast Feeding Protection and Child Nutrition Ordinance 2002”.
- In the areas of nutrition crises, standards and guidelines were developed for nutrition in crises.

3.4 Non - Communicable Diseases (NCDs)

The global health landscape is rapidly shifting away from one dominated by infectious diseases to one characterised by various chronic conditions. These non-communicable diseases now cause more than half of all deaths worldwide, 80% of which occur in low-income and middle-income countries. If the present trends continue unabated, annual deaths from chronic diseases will reach 41 million by 2015, and almost half of these will be in people younger than 70 years. Since the major causes of chronic diseases are known, half of these deaths are preventable.

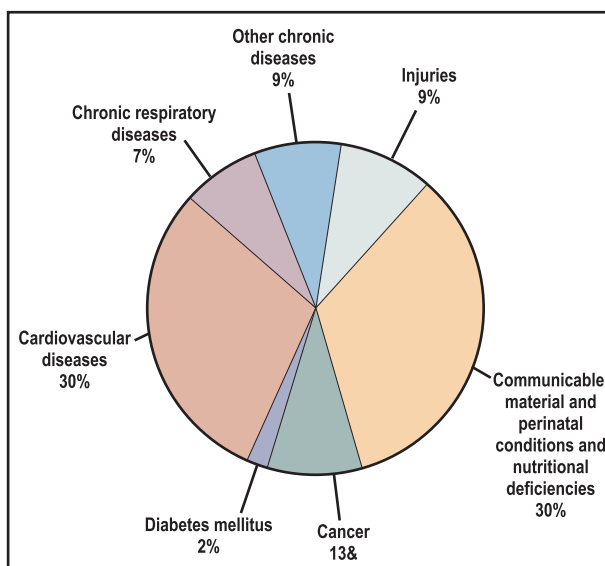


Figure 1- Projected global distribution of total deaths (58 million) by major cause, 2005

The world today is seeing a new epidemic of NCD that would have a devastating affect unless it is stopped. In 2001, 56.5 million people died in the world. One third of these deaths were due to cardiovascular diseases (CVD). CVD would be the cause of more than half the deaths worldwide by the year 2010. In addition every year not less than 20 million people have an acute myocardial infarction (MI) or stroke but survive. CVD is not only the problem of the West. Eighty percent of the deaths due to CVD and 86 percent of the global burden of CVD are in the developing countries. Despite the high death rates due to non-communicable diseases, by 2010 the leading cause of death in the developing countries including Pakistan would be CVD. There are at least 600 million hypertension sufferers worldwide, which is 4.4 percent of the total global disease burden. Hypertension causes 7.1 million deaths annually i.e. 13 percent of the total deaths. In Pakistan too the prevalence of hypertension is quite high. It is estimated that over 50 percent of the population over the age of 50 is hypertensive.

About 56 percent of heart diseases and 18 percent of strokes are attributed to total serum cholesterol levels >5.2 mmol/l (200 mg/dl). Dyslipidemias account for 4.4 million deaths annually, which is 7.9 percent of the total global deaths and 2.8 percent of the total global disease burden.

Cigarette consumption constitutes the single most important modifiable risk factor for coronary artery disease and the leading preventable cause of death. Nearly 1 billion individuals now smoke worldwide. Smoking has a particularly staggering impact in the Third World: almost one-half billion individuals worldwide will eventually die of smoking-related complications. Even among nonsmokers, we now recognize that inhaled smoke, whether from passive exposure or from cigar and pipe consumption, also greatly increases coronary risk. In the United States it accounts for over 400 000 deaths annually.

In 2000 there were 177 million people in the world with diabetes mellitus (total world population 6.3 billion). This is predicted to rise to 370 million by 2030 (total expected world population 9.3 billion). Much of this increase would be in the developing countries. In Pakistan

there were 4 million people with diabetes in 1998 and an estimated more than 6 million in 2002. This is expected to rise to 16 million in another 5 years. Pakistan is one of the 10 countries in the world with the highest prevalence of diabetes and has one of the fastest increase in the number of diabetics.

There are over 30 million people in the world who are obese (BMI > 30/kg/m²) and another 1 billion who are overweight (BMI 25-30 kg/m²). In Pakistan, where there is also a problem of under nutrition, in 1994 11.6 percent males and 18.93 percent females were obese or overweight (WHO global database on BMI).

Lack of adequate physical activity is directly responsible for 2 million deaths globally every year and is responsible for 3-4 percent of global disease burden. Physical inactivity contributes to 22 percent of IHD, 11 percent of ischemic strokes, 14 percent of type 2 diabetes, 10 percent of breast cancer and 16 percent of colon cancer. Physical inactivity also causes obesity, osteoporosis, falls, low back pain, depression and anxiety.

Seventy five percent of the CVD is attributable to high cholesterol, hypertension, low fruit and vegetable in diet, inactive life style and tobacco use. These risk factors also tend to cluster in individuals and the risk for CVD multiplies with addition of these risk factors. Even without taking medication, only by changing lifestyle, IHD can be reduced by 80 percent, Type 2 diabetes by 90 percent and cancer by 33 percent.

In Pakistan there is a lack of adequate data on the disease burden of cardiovascular disease as well as the risk factors involved. Many primary care physicians do not have current knowledge about the management of CVD. The public also is largely unaware about the prevention of CVD. There is no consensus amongst the specialists in the management of hypertension in Pakistan. NCDs and injuries are considered as one of the top ten causes of mortality and morbidity in Pakistan; estimates indicate that they account for approximately 25% of the total deaths within the country. NCDs contribute significantly to adult mortality and morbidity and impose a heavy economic burden on individuals, societies and health systems. In most cases, it is the economically productive workforce, which bears the brunt of these diseases. Existing population-based morbidity data on NCDs in Pakistan show that one in three adults over the age of 45 years suffers from high blood pressure.

Cardio-vascular diseases: Among non-communicable diseases, cardio-vascular diseases (CVD) are an important public health problem. Although no accurate data is yet available, the burden of CVDs is expected to be high in view of behavioral and lifestyle changes in Pakistan. Moreover, many primary care physicians and the majority of citizens do not possess adequate knowledge concerning the prevention and management of cardio-vascular diseases. There is also no clear consensus among the specialists with regard to the management of hypertension.

Cancer control: Cancer is also an important public health problem. The Ministry of Health has started cancer registration in pilot districts. According to the registry, the top 10 ranking cancers are as follows (n=1110): Breast (15%), Lung (8%), Leukemia (CLL) (8%), Stomach (7%), Esophagus (6%), Bronchus (5%), Leukemia-ALL (5%), Leukemia - AML (4%), Pancreas (4%), Rectum (4%). the age group of these cases in order of prevalence is age group 51-60 years (25%), followed by f 61-70 years (20%) and age group of (18%). The cancer registries

clearly indicate the social and economic burden of cancer in the country.

Preventable blindness: According to National survey of Blindness and Low Vision 2002-2004, the prevalence of blindness in Pakistan is 1% with 1.5 million people blind in the country. The Government of Pakistan launched National Plan for Prevention and Control of Blindness for the year 2005 to 2010 and has allocated PKR 2.74 billion for the Plan. There are three areas that the Ministry of Health has to work to reduce blindness burden from Pakistan:

- Infrastructure and Technology Development
- Human Resource Development: train PHC workers in PEC, Ophthalmic Technicians, Refractionists, Optometrists, Orthoptists, Ophthalmic Nursing,
- Disease Control (Trachoma, Childhood Blindness and Diabetes Related Blindness)

Objectives of the NCD programme

- 1) Prevention and control of important types of cancer.
- 2) To reduce mortality and morbidity due to CVDs.
- 3) To strengthen the tripartite partnership with a mandate to develop and implement a national plan of action for prevention and control of NCDs.
- 4) To reduce cataract backlog.
- 5) Reduce other causes of blindness.
- 6) To strengthen the infrastructures of eye care.

Activities and Outputs

During the biennium 2008-2009, WHO provided technical support to set the strategic direction for control of non-communicable diseases in the form of launching of **National Commission for NCD**. The NCD Commission of Pakistan would take up the task of developing strategy papers for the identified groups of Non-Communicable diseases in a Pakistan, where the Ministry of Health along with private partners will devise sustainable prevention strategies to address a number of NCDs and their common risk factors at the same time. Examples of effective interventions to reduce the overall prevalence of risk factors could include taxation on cigarettes and defining standards of cooking oils. Population based strategies such as screening and educational programs have been shown to impact on overall disease burden. Led by the Ministry of Health who would provide seed money and facilitate the secretariat, the Commission would be composed largely of representatives of relevant professional and civil society groups. The Commission would devise and direct preventive programs in the various categories of NCDs and raise funds to sustain its work.

The Ministry of Health would also furnish a legislative framework for creation of a statutory National Commission on Non-Communicable Diseases and convene a consultative meeting of stake holders. Amongst the latter would be representatives of the Association of Pakistan-descent Cardiologists of North America, Pakistan Society of Cardiologists, Pakistan Diabetic Association, Pakistan Society of Clinical Oncology, Nephrologists Society of Pakistan, Citizens against Smoking, Pakistan Chest Society, Pakistan Society of Psychiatry, Dieticians Society of Pakistan and Primary Trauma Care. Expert input in such a meeting on the most effective strategies for preventing NCD would be solicited from relevant experts of WHO and from India who are familiar with our social milieu along with academics from local universities and CDC (Atlanta).


Objectives of the NCD Commission:

1. To recognize the significance of NCD as a public health issue and bring together all the stakeholder to play their role
2. To address the burden of NCDs with public private partnership and volunteerism as its guiding principles
3. Furnish a legislative framework for creation of a statutory National Commission for Non-Communicable Diseases

Activities to combat Cardiovascular Diseases:

1. IHD Guidelines: Formulated a guideline on management of Ischemic Heart Disease (IHD) and hypertension.
2. Two one day Workshops and seminars conducted: Carried out public awareness public seminars on risk of CVDs.
3. Courses conducted for general physicians on management of cardiovascular diseases (CVDs).

Activities for Control & Prevention of NCDs:

1. **Launching of NCD Commission:** WHO provided technical & logistic support and supported number of consultations for the development of concepts papers for various components of NCD. These meetings were attended by representatives of the Association of Pakistan-descent Cardiologists of North America, Pakistan Society of Cardiologists, Pakistan Diabetic Association, Pakistan Society of Clinical Oncology, Nephrologists Society of Pakistan, Citizens against Smoking, Pakistan Chest Society, Pakistan Society of Psychiatry, Dieticians Society of Pakistan and Primary Trauma Care.
2. **National Strategy for NCD:** WHO provided technical support for the development of draft national strategy for control & prevention of NCD. In this context a national consultant was hired and consultative meetings were organized. The strategy is its final shape now and will be endorsed by MoH.

3. **Training of LHWs:** Tools of training printed & community intervention planned for the last quarter of 2007. Work has previously been undertaken to introduce NCD prevention into the work plan of LHWs in one district by training 700 LHWs and introducing cardiovascular disease prevention as part of their work-plan. Lessons learnt from this were instructive to develop the NCD tools of intervention.
4. The **Health Policy Forum** has been very active in lobbying for NCDs as is evident by the writings of the Forum accessible at <http://heartfile.org/viewpoint.htm> The health systems solutions that the Forum is advocating to catalyze change in the health sector through the Gateway Papers are envisaged to strengthen the health system & facilitate the inclusion of NCDs on the country's health agenda.

5. **Documents published:** following documents were developed and published:
- Gateway paper II & III developed and published
 - Advocacy tools for legislatures
 - Risk factors study

Activities to Combat Blindness:

1. **Support to Al-Shifa Eye Trust Hospital Rawalpindi:** Al-Shifa Eye Trust Hospital Rawalpindi is a center of excellence and the only hospital where a variety of public health programs are conducted. WHO provided technical to Al-Shifa Eye Trust Hospital Rawalpindi during the biennium.
2. **Training of District Ophthalmologist** on laser application (both YAG as well as Argon Laser/ Solid State photocoagulator)
3. **Signatory to Vision 2020.**

3.5 Maternal Neonatal Child Health including IMCI

Pakistan health and demographic indicators still continue to be poor, compared both to its neighbors in Asia and other EMRO countries. The maternal health sector continues to need major strengthening in Pakistan

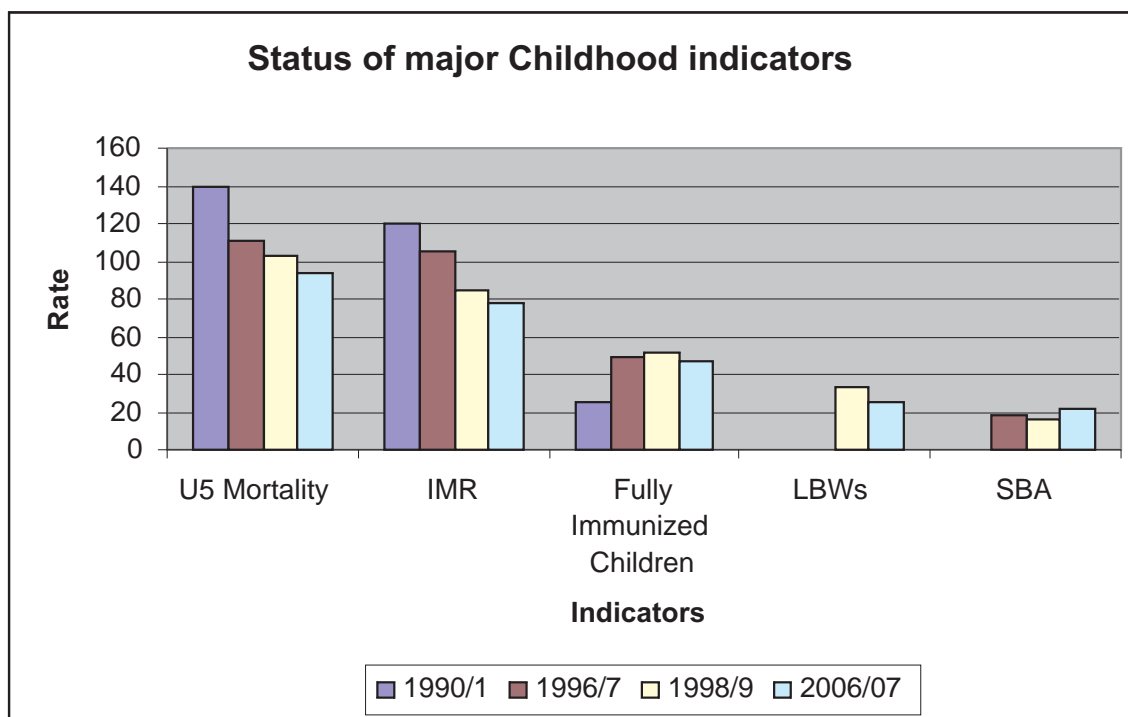
In recent years, some marginal gains have been achieved in Pakistan (PDHS 2007) i.e. (1) Antenatal care has risen from 41% in 2006 to 61 %; (2) Tetanus toxoid coverage is also about 60%, yet post natal care remains low at 22% and the presence of a skilled birth attendant at delivery is only 4 in 10 births. MMR is 276/100,000 live births. The leading causes of maternal mortality in Pakistan and responsible for two thirds of all maternal deaths in hospital and community settings, remains haemorrhage, puerperal sepsis, hypertensive disease of pregnancy and obstructed labour.

Pakistan's family planning and contraceptive picture remains mixed. CPR dropped to 30% in 2007 compared to 34% quoted for 2006 although knowledge about family planning remained high at 90%. The unmet need for family planning /contraception remained high at 43.3 %. The total fertility rate is 4.1.

Under-five mortality was reported to be 94/1,000. The Infant Mortality Rate (IMR) stands at 78/1000 live births (PDHS 2007) while the Neonatal Mortality Rate is 54/1000 LB, which is 69% and 57% of IMR and U5MR requiring more attention.

Maternal survival is closely linked to infant survival. In Pakistan, *about half of all infant deaths can be attributed to poor maternal health* and nutrition and it is estimated that 25% of babies born are of low birth weight. Leading causes of NMR remain birth asphyxia, serious infection, with high low birth weight being a predisposing factor.

As regards nutrition, the maternal nutritional status in Pakistan is poor. Under weight mothers (non-pregnant) are 12% and under weight mothers (lactating) are estimated at 13 %. More than ½ of world's malnourished children are found in just three countries i.e. Bangladesh, India and Pakistan.



Pakistan, to achieve the targets set for MDG 4 and 5 has endorsed a National Maternal Neonatal and Child Health (MNCH) Strategic and Policy Framework. Based on this, a National programme of MNCH (worth PKR 20 billion) was approved by the Government of Pakistan in March 2007. The Ministry of Health has appointed a National Programme Manager while the Provincial MNCH managers are already on board.

WHO was actively engaged in supporting the MoH and MoP in signing a memorandum of understanding (MoU) to ensure functional integration of RH/FP in December 2008. A taskforce of which WHO is a member was established to work out mechanisms and modalities to ensure that all Health outlets and Population family center will be providing a standardized FP package.

Activities and Outputs

During the biennium 2008-09, WHO provided technical support to MNCH programme and following were the key achievements:

1. Provincial and district Support to MNCH: WHO continues to provide its technical support through the National MNCH team consisting of one International MNCH MO, one National MPS and one National CAH officers. Realizing the importance of supporting the devolution process and Provinces and districts where actual implementation takes place WHO extended its technical support to the Provincial and District DOH for MNCH activities through the recruitment of 5 MNCH/CAH provincial officers in 2007. The National MNCH Programme has been launched in March 2007 but the pace of implementation is still unsatisfactory. To provide support to the implementation of the programme at the provincial and district level, it was considered necessary to recruit MNCH and CAH officers for the provinces. The main ToRs of these is to support the implementation of MNCH activities in the respective provinces and districts. They are assisting the Government to plan, implement, monitor and evaluate the

progress of activities through out the implementation process.

2. Adaptation of MPS/SPP Manuals: The primary function of the WHO remains technical support to the Govt. of Pakistan. In this regard, WHO, along with Ministry of Health (MOH) and Ministry of Population initiated the process of introducing international, evidencebased guidelines on Making Pregnancy Safer (MPS). WHO in consultation with the Government awarded an APW to two senior consultants of the Pakistan Institute of Medical Sciences (PIMS), Islamabad to; adapt the World Health Organization guidelines for maternal and newborn health given in the manual titled 'Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice' to suit Pakistan context. Four national and provincial consultative workshops were held for key stakeholders to introduce the PCPNC guide, orient on its purpose, contents, structure and presentation, get input/s, suggestions, and recommendations as changes for adaptation in the PCPNC guide. Adaptation points identified were shared with the Technical Units in EMRO and HQ, approved, incorporated in the Module and printed.

WHO HQ and WFH/EMRO conducted the first Regional course on Essential newborn Care in February 2008, where six international consultant were recruited to conduct the training for 22 master trainers (14 from Pakistan and 6 from Afghanistan). The trained facilitators then conducted the first National ENC course for 21 Senior Paediatricians, Obstetricians and SBAs. In December 2009 an other Master training course was conducted for 12 senior professionals from Sind and NPPI districts followed by training of 22 health care providers from Sindh and Federal level. The tri

3. Emergency Surgical Skills with focus on Maternal, Newborn & Child Health: It is documented that providing basic emergency surgical relief at first contact with a health facility/provider, will result in a positive outcome for the patient particularly a mother or/and a child. This programme aims to impart these basic skills to First Level Care Provider (FLCF) through a series and combinations of different training programmes. An APW for training on Essential Surgical Skills with Emphasis on Emergency Maternal and Child Health was given and Capacity Building and provision of life saving/ training equipments for the National as well as the district levels health facilities was done. Also Health workers were trained in Emergency Maternal and Child Health and 6 trainings in One-Day Emergency Basic Life Support Workshop of ESS-EMCH Programme were conducted at Rawalpindi, Attock, and Jhelum. About 144 people were trained.

4. Technical Support to GAVI HSS Proposal: WHO provided a strong technical support to the Ministry of Health in developing the proposal for GAVI HSS building on the same structure that had elaborated the MNCH framework. The GAVI HSS proposal is therefore conceived and prepared to seamlessly support and strengthen the district health system in a manner fully tailored to address the operational needs of the MNCH services in the country and capable of building an effective network of health system support inputs that would result in a sustained improvement in MDG 4 and 5 indicators. The GAVI Secretariat approved the proposal of USD 73 million for 5 years, of which the first tranche of USD 16 million was transferred to GoP. WHO assisted the MoH in providing technical support to implement GAVI-HSS. The MNCH part (IMNCI and EmOC) was successfully implemented (details below). In addition MoH

acknowledging the comparative advantage of WHO, transferred additional funds to WHO to conduct certain activities originally planned to be implemented by MoH. A full fledge Health System Strengthening and Policy Unit has been established and fully functional in the MoH.

5. Norway Pakistan Partnership Initiative (NPPI): To boost the global efforts to achieve the targets of the Millennium Development Goals 4 and 5, the Governments of Norway and Pakistan have agreed to engage in a joint partnership to reduce maternal, newborn and child mortality rates in Pakistan. This agreement is based on commitments made by the President of Pakistan and the Prime Minister of Norway, and between the two Prime Ministers to implement a country partnership Programme for Pakistan. The Norwegian government will provide a grant of Norwegian Kroner (NOK) 250 million for the least performing 10 districts in Sindh. This flexible funding will enable implementation and innovation using results-based disbursements. The Norwegian funds will complement and accelerate the government efforts in the successful implementation of the national MNCH Programme approved in March 2007 and will integrate with UN and the GAVI efforts to strengthen the Health System as planned through the recently accepted HSS proposal 2008-2010 and beyond. In April 2009, the Norwegian Government approved the Joint NPPI plan and released the first tranche of NOK 20 million to the 3 participating agencies. WHO share from it was NOK 6.4 (USD 754,275). Though there was a delay in fund transfer but WHO managed to efficiently utilize this funds on time and in line with the plan. The major achievements in this regard are the provision of technical support to 10 districts by recruiting 10 district MNCH officers, creating a pool of Provincial master trainers on IMNCI/EmOC/ENC and strengthening 6 teaching institutes through training of their faculty staff on the above mentioned interventions. The second tranche of NPPI has been released which amounts to USD 1.824. The 2010 plan costing NOK 16.5 millions was prepared.

6. Integrated Management of Childhood Illness: Expansion of the three components of IMCI strategy required lot of financial commitment as well as technical assistance both from the government as well as its development partners. This support did not come forth due to inadequate political commitment from the government and diminishing support from the development partners. During the subsequent reviews of the situation for the achievement of MDGs 4 and 5, it was realized that Pakistan was lagging behind its neighbors in achieving the set targets. There have been renewed efforts to scale up the evidence based intervention to achieve targets set for MDG 4.

7. IMCI in-service Trainings: IMCI implementing districts increased from 7 in 2005 to 42 in 2007. During 2008-2009, more than 76 districts were implementing IMNCI i.e IMNC coverage reached 56% district wise compared to 5% (2005) and 31% (2007). This increase was associated with increase in health facilities implementing IMCI in Pakistan. more than seven partners are now supporting IMNCI implementation. Through GAVI HSS support more than 360 health care providers were trained in 2009.

8. Inclusion of zinc in LHWS kit: Ministry of Health with support from WHO and other development partners has decided to include zinc as an essential medicine in the kit of LHWS. It was decided for the LHWS to dispense a full diarrhea pack consisting of 2 sachets of low osmolar ORS, a bottle of zinc suspension in bag written with health communication messages.

Moreover, the introduction of zinc in cases of diarrhea by LHWs will concomitantly be supported with an appropriate media communication campaign. The procurement of zinc for LHWs was supported by GAVI HSS. Refresher training on administration of low osmolar ORS and zinc was conducted for LHWs. LHW supervisors and Facility trainers of LHWs.

9. Inclusion of IMCI in Pre Service Curricula: In service trainings are cost intensive and require lot of planning and implementation modalities that limits the choice of training sites in terms of skills learning and practicing. Introducing IMCI in Pre Service curricula of both physicians at the undergraduate level and paramedical staff can make the capacity building part of the strategy more sustainable. A Pre Service working committee consisting of all the stakeholders including academia, professional associations, examination and registration boards of both medical and paramedical institutions public health professionals and programme managers, has been reconstituted and notified by the ministry of health. The first meeting of the committee is scheduled took place in January 2008, while the National Workshop for inclusion of IMCI in the pre-service curricula was conducted in May 2008, in coordination with Regional Advisor Child and Adolescent Health and Development EMRO. This was then followed by two Provincial Planning workshops in Punjab and Sindh (June and October respectively). Seven institutes have submitted their institutional plan and WHO supported them through training their faculty staff. The implementation will start in April 2010.

10. Second Adaptation of IMNCI:

As Pakistan version of IMNCI training materials were prepared in 2000, it was felt necessary to have a second round of adaptation based on new available evidence. An IMNCI adaptation committee was reconstituted and notified. The National adaptation workshop took place in February 2009. Suggested adaptations were discussed and consensus was developed. It was then followed by red-penciling and the first draft chart booklet is under printing.

11. Partnerships for Expansion of IMCI: Ministry of Health with strong technical support from WHO, has developed partnerships with private sector, to expand IMCI in Pakistan. Save the Children UK, Save the Children US, Save the Children Japan and Primary health care Revitalization, Integration and Decentralization in Earthquake affected areas, Project (PRIDE, USAID Funded), PAIMAN (USAID funded project and Malteser International are the development partners who will also ensure the implementation of health system strengthening and community IMCI. This partnership was brokered by the strong technical support of WHO which continues to provide technical assistance for expansion that resulted in raising the coverage from 32% to 54% (76) of the districts implementing IMNCI activities.

3.6 Health of the Elderly

Due to the aging trends, the health of the elderly has emerged as an important health issue globally. These trends were already distinct in the developed countries, but in recent years it has also become a concern in the developing countries. In 1998 the elderly population (defined as 60 years or above) in Pakistan was 7.3 million (5.6 percent of the total population), which would increase to 26.84 million (11 percent of the total population) in 2025. The number of male members in the community is more as compared to females. In rural areas of

Pakistan, elderly population estimated as about 4.8 million, where they only have access to primary level health care facilities, whereas the private medical facilities are concentrated in urban areas. In 1994 and 1998, surveys conducted on ESCAP guidelines indicated that most of the elderly were living in extended families and more than half were suffering from various illnesses and were dependent on their families. The preliminary results of the year 2000 survey showed that primary needs of the elderly were shelter, clothing, and also some amount of cash for day to day living. At this point in time, priority should be given to strengthening of the existing national programme aiming at provision of health care for the elderly, appropriate training of the health care staff and creating mass awareness among the political leaders, NGOs, religious bodies and community leaders in the field of elderly health.

WHO's work in this area was to sensitize policy makers to the need for prioritizing strengthening the existing national health programs providing health care to the elderly and providing appropriate training of health personnel in the care of the elderly.

Objectives

- 1) To improve health and social status of the elderly.
- 2) To improve geriatric elderly care in the country.
- 3) To identify and solve common problems facing the elderly.

Activities and Outputs

The following were the major supported activities and achievements during the biennium 2008-09:

1. **National Strategy on Health of the Elderly:** A detailed situation analysis was conducted and a database was prepared, which helped to prepare a draft national strategic framework on health of elderly. This document will pave the way forward to prepare a unified national policy and plan of action for senior citizens of Pakistan. Consensus of relevant stakeholders has been obtained through series of workshops and strategy will be now shared with MoH for their agreement and implementation.
2. **Advocacy Activities Pursued:** Published health education material, developed a video film on the subject and engaged in advocacy through electronic media.
3. **Training Workshops for Health Personnel and Media Conducted:** Sensitized 175 health managers, nurses, NGOs, media, community members and other related personnel through conducting 6 training workshops.
4. **Establishment of the Health of Elderly Studies Center:** prepared the 4 years plan and networking among agencies, organizations and training of personnel. Provided logistical support for the establishment of these centers
5. **Collaboration with other sectors:**
 - HelpAge International
 - Merlin International
 - NIP (Quaid-e-Azam, University)
 - Islamabad Traffic Police
 - Ayub Medical College, Abbottabad
 - Institute of Public Health, Lahore
 - JPMC, Karachi
 - Lady Reading Hospital, Peshawar
 - Ambassador for Elderly

6. **Technical documents:**
7. Plan of Action for the Health of Elderly
8. Health Education for Health of the Elderly
9. **Website www.elderlyhealth.com.pk**

3.7 Environmental Health Policy

Lack of access to safe drinking water, inadequate sanitation facilities, improper solid waste management including healthcare waste are the major environmental health problems identified in Pakistan. The Government of Pakistan has launched the "Clean Drinking Water Program" (Ministry of Environment) for all, which includes provision of drinking water treatment plants at the tehsil level. The Pakistan Council for Research in Water Resources (PCRWR) has planned to build a network of drinking water testing laboratories in major cities of the country. The Ministry of Health has allocated resources in its Prevention and Control of Hepatitis Project for the up-gradation of NIH and provincial laboratories, model water filtration plants and emphasis on household water treatment methods. There is a need to guide the hospitals on making waste management plan for hospitals in light of approved hospital waste rules.

In some areas of the country, solid waste in Pakistan is thrown into open land-pits and water bodies, close to residential areas, resulting into serious human health consequences. There is inadequate promotion of appropriate solid waste management including hospital waste. There is a need to develop a plan of action based on community participation and appropriate collection and disposal facilities. In the broader context, an environmental health policy for Pakistan is a critical need that would lead to lay down national strategy and plan of action for major environmental health issues in Pakistan.

Objectives

- Strengthen the network among the Federal Environmental Health Units
- Support implementation of national healthcare waste management in selected healthcare facilities. Contribute to establishment of national policies and programmes that protect health from environmental risk factors; and
- Mobilize action by other sectors to ensure environmental risk factors are managed safely to protect health (e.g. safe drinking water supplies and sanitation are available to all population, and wastes are managed safely, and chemicals are managed safely, development policies and projects protect health)

Activities and Outputs

During biennium 2008-09, WHO provided support the establishment of separate environmental health unit at federal level NIH-MoH, where support is also provided in building the capacity for highlighting the environmental health issues and implementation of hospital waste management guidelines as pilot at Holy Family Hospital. The WHO technical support to develop guidelines on healthcare waste management was furthered during the biennium. The guidelines and protocols developed during the previous biennium were shared with all stake holders for their inputs and consensus building. The following were the major supported activities and achievements during the biennium 2008-09:

Establishment of Environmental Health Protection Unit (EHPU): in order to make the environmental health programme sustainable and more effective WHO provided technical support to establish environmental health unit at MoH-NIH Islamabad.

The urgent need to establish the EHPU: Up to 35 % of the burden of disease in Pakistan can be attributed to environmental risk factors. The most important of those are water supply and poor sanitation which account for more than 1.6 million DALYs due to diarrhea and 900,000 DALYs due to typhoid (Source: Pakistan Strategic Country Environmental Assessment , 2006). Other priority risk environmental factors that contribute to the burden of disease include indoor and outdoor air pollution, exposure to lead, chemicals and pesticides, and unsafe food.

EHPU initiated mapping critical Water Quality Parameters and designing mitigation approaches to protect health. EPHU is continuing collection, review and analyzes of available water quality data from various key stake holders for identification of critical water quality parameters affecting public health

In consultation with other stakeholders, EPHU is relevant and specific (e.g. Arsenic health risks) awareness raising messages, brochures, pamphlets, audio-visual materials, etc., about the health risks and hazards , and information on any relevant and practical mitigation measures that can be undertaken by the affected communities.

EPHU is reviewing national sanitation policy and any other relevant laws and regulations related to safe handling , management and disposal of hazardous health care waste ; and initiated the process of preparation, presentation (national and provincial workshops) and discussion of the draft of national policy and guidelines (national consultation meeting in Islamabad) for safe management of Sharp waste incl. immunization and vaccination wastes ;

Pilot project in Holy family: The unsafe disposal of health-care waste (for example, contaminated syringes and needles) poses public health risks. Contaminated needles and syringes represent a particular threat as the failure to dispose of them safely may lead to dangerous recycling and repackaging which lead to unsafe reuse. Contaminated injection equipment may be scavenged from waste areas and dumpsites and either be reused or sold to be used again. In order to implement various technical guidelines and standards on water quality and waste management prepared by WHO in collaboration with GoP; a HCWM pilot project was initiated in Holy family Hospital, with objective of expanding it with the support of the local governments in order to improve the healthcare facilities infection control mechanisms.

Reviewing current national / international health care waste management practices, approaches, processes and technologies, in-order to identify any feasible best practices that could be replicated/introduced to reduce health risks faced by health care staff and public from hazardous health care waste and so as to apply such best practices (after assessment of gaps and further strengthening needs) to the Holy Family Hospital for making it a better model for replication as well as identifying additional hospitals in other provinces for replicating Holy Family Hospital experience.

The WHO technical support to develop guidelines on healthcare waste management was

furthered during the biennium. The guidelines and protocols developed during the previous biennium were shared with all stake holders for their inputs and consensus building.

Health Awareness Campaign: WHO provided technical support to develop a comprehensive proposal for environmental health awareness raising program at various levels, including details of the media, school, and community aspects of the programme, staff requirement and training needs. Similarly training of health staff and community awareness-building regarding safe drinking water and sanitation was conducted through four different workshops.

Priority Environmental Health Issues to be addressed by EHPU:

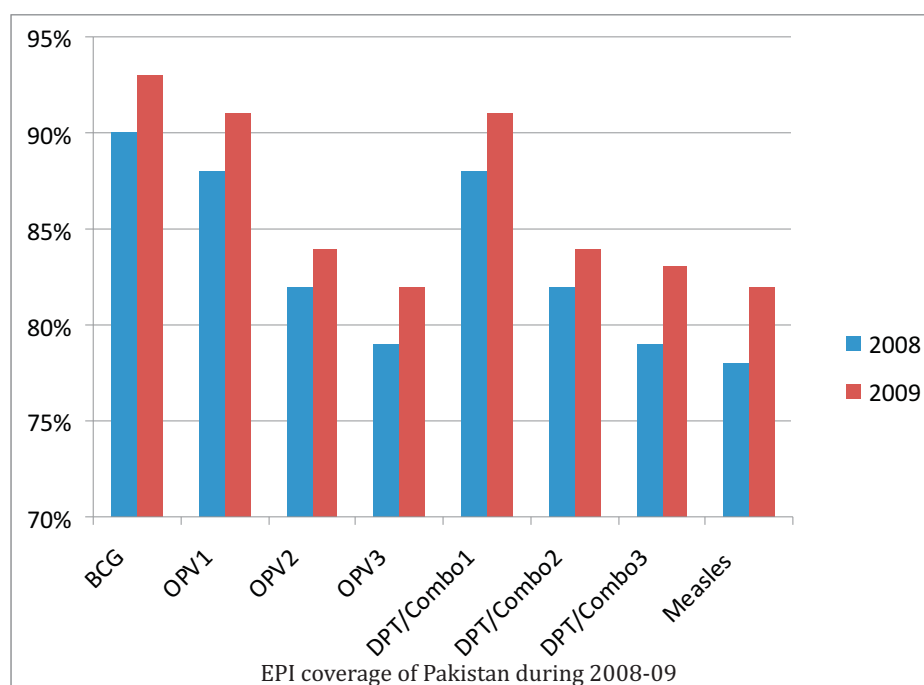
Through consultation with leaders from various agencies, six environmental health risk factors and priorities were identified as priority for action by the EHPU: a) drinking water quality and quantity and sanitation (including solid waste, and hygiene); b) Air pollution (indoor and urban); c) Healthcare waste; d) Chemical and pesticides; e) Food safety; health impact assessment.

The EHPU operations will require close collaboration and networking with a multitude of agencies that have a regulatory mandate and those that have service delivery mandate. Additionally the EHPU will also draw on the existing capacities of the research, teaching, and other agencies. Caution must be taken to ensure complimentary action and avoid duplication of efforts.

D. Prevention and control of communicable diseases

4.1 Expanded Program on Immunization (EPI)

Reported routine immunization coverage has increased in 2008 in the country as compared to 2005 which is DPT3 83%, Hep B3 83% and Measles 82%, with variations among districts: which shows marked improvement in the last 2 years. EPI Pakistan has also adopted RED approach and has prioritized 40 districts in all the provinces. All of these selected districts have developed operational micro-plans to improve access to routine immunization services; but implementation of district and UC micro-plans are not properly managed by the district teams. In this situation around 7% coverage improvement has been observed. Overall work is required on microplanning and supervision and monitoring in all districts of the country with the close collaboration of EPI, WHO and UNICEF.



Measles is still highly endemic in Pakistan with thousands of cases reported every year. However, Government of Pakistan with assistance of development partners (WHO & UNICEF) has taken elaborative initiative to reach the measles elimination goal by 2010. As a part of this initiative, MOH is conducting a nationwide measles catch-up campaign targeting about 65 million children aged 9 months to less than 13 years with an aim to give all of them one dose of measles vaccine. This dose will provide a second opportunity to those who failed to develop immunity on receiving first dose or never received the vaccine at all. Till date, approximately 30 million children have been vaccinated in 98 districts through 4 phases of the campaign. The rest of the country will be covered by one more phase to be completed by March 2008. Through routine EPI surveillance system, 1972 suspected measles cases have been reported from Jan June 2007 as compared to 6507 cases in the same period of 2006. Though post-campaign case

Schedule of Pakistan Measles Catch-up Campaign

Phase Province / Area	Number of district	Schedule	# of target children	# of children vaccinated	Coverage
Phase 1	4 districts	01 to 18 March 2007	2,571,536 (9 months to less than 15 yrs)	2,511,837	98%
Phase 2	6 districts	02 to 18 July 2007	1,219,364 (9 months to less than 13 yrs age)	1,282,232	105%
Phase 3	40 districts	20 August to 05 September 2007	6,890,603 (9 months to less than 13 yrs age)	6,906,376	100%
Phase 4	48 districts	12 to 28 November 2007	21,262,960 (9 months to less than 13 yrs age)	20,566,497	100%
Phase 5	34 districts + Islamabad	17 March – 02 April 2008	34,123,305 (9 months to less than 13 yrs age)		

based measles surveillance system is in the process of introduction, still because of weak surveillance system, the number of cases is estimated to be much higher and outbreaks are still inadequately detected, investigated and responded to. Maternal and neonatal tetanus is still a serious health problem in Pakistan. WHO estimates the annual number of MNT cases in Pakistan to around 30,000. National EPI has plan to conduct 2 rounds of MNT campaign in 2008 and one round in 2009 in selected high-risk districts.

GAVI PHASE-1: The support under window-I (2002-2008) was initially for Hepatitis B vaccine along with corresponding numbers of auto-disable syringes and safety boxes but later on it was switched over from mono to Combo (DPT-HepB) vaccine. These commodities are being provided by GAVI through UNICEF. As per agreed criteria, Hep-B vaccine or Combo vaccine is administered to all children under one year of age with the schedule of DPT i.e. 6th, 10th and 14th week of infant's age. This support has been approved for five years at the cost of US\$ 60 million.

The support approved under window-II (2003-2008) in the shape of financial assistance worth approximately US\$ 35.6 million is meant for Immunization Services Strengthening. Based on this financial support, provinces have prepared their PC-1 having which also include provincial government shares. The provincial government shares range from 8%-47%. However the overall support under window II is linked with meeting the coverage targets. Till date, US\$15.57 million has been disbursed and the remaining balance is US\$ 20.03 million. Three channels have been proposed so far for utilization of the balance amount as said,

1. PSDP
2. UNICEF for procurement of hardware
3. WHO for technical assistance

GAVI PHASE-2: Pentavalent (DPT+HepB+Hib) vaccine will be introduced with NVS support from GAVI. The total cost for the vaccine including injection equipments for the period of 2008 2010 is estimated at US\$ 159.266 million. For the period of 2008 and 2009 GAVI will provide US\$ 105.073 million as a grant and Government of Pakistan will co-finance worth of US\$ 9.197 million for the same period. Besides this GAVI will also provide US\$ 1.811 lumpsum for the introduction of Pentavalent vaccine during 2008. The Ministry of Health has secured US\$ 23 million for two years period (2008 2009) under Health System Strengthening Support. The aim of this support is to ultimately improve the immunization services in the country as well.

Immunization Services Strengthening Support (ISS) under Phase-2 is in the shape of grant assistance worth US \$ 10 million for a period of 3 years (2007-2010). The overall support under this window is linked with achievements of laid down immunization (DPT3) coverage targets. Along with the remaining balance (US\$ 20.03 million) from ISS support of Phase 1, total fund expected to be available US\$ 30 million. As per proposal, there will be one central level PC-1 with separate chapters for provinces and areas. All provinces would be involved in the development process.

CSOs: New GAVI funding is also available to strengthen the involvement of civil society organizations (CSOs) in immunization, maternal and child health and related health services. The aim is to encourage cooperation between the public sector and civil society to help in building sustainability in the planning and delivery of these services which will enable the achievement of the MDGs

AEFI Surveillance: The EPI-Pakistan has introduced the Adverse Events Following Immunization (AEFI) surveillance system in the country. National AEFI guidelines in English and Urdu has been developed and distributed. Training has been completed in 49 districts so far.

Main Achievements during 2008 - 09:

1. Penta3 reported coverage is 87% at national level and 56% districts reported more than or equal to 80% coverage
2. Measles 2nd dose had been added in the childhood routine immunization schedule during the 2nd year of life
3. However, MNT surveillance has been incorporated in integrated VPD surveillance system

4. Routine measles 2nd dose included and National Measles Catch-up Campaign completed successfully
5. Guideline, forms and other tools are developed and distributed to all health facilities in the country. All service providers were trained in whole country except one province (Balochistan). The system has started working
6. 100% immunization injections are done using AD syringe and safety box. However final disposal of sharp wastes are mostly done through 'burn and burry' method.
7. MNT Risk analysis of all districts done and districts are categorized accordingly identifying specific intervention. 3.5 million CBA women have been vaccinated through three rounds of campaign in 6 high-risk districts of Punjab. Intervention in the remaining districts couldn't be completed due to unavailability of resources
8. Integrated VPD surveillance system has been introduced in all provinces except one. Material development and training also complete in these provinces. However, the system has not started fully working yet
9. Six sentinel sites are now fully functioning for Bacterial meningitis and Rotavirus diarrhea surveillance. These sites were equipped and trained with WHO assistance and now providing monthly data on their surveillance activity
10. Hib vaccine has been introduced countrywide with GAVI NVS support as a combination Pentavalent vaccine in 2009.
11. Country has also submitted its application to GAVI for introduction of Pneumococcal vaccine (PCV10) from 2011 and expressed interest to introduce Rotavirus vaccine from 2013
12. In 2009, EPI conducted a study on Barriers on Immunization. The result of this study is yet to publish officially. EPI is currently in the process of revising the National Immunization Policy and operational guideline on the basis of recent findings and issues.

4.2 Polio Eradication Initiative in Pakistan

Overview: Pakistan is one of the four remaining polio-endemic countries in the world and as such is a priority country for the Global Polio Eradication Initiative. The country faced a set back to the progress in 2008 and 2009 having 117 and 86 polio cases respectively, compared to 40 cases in 2007. This is mainly attributed to the insecurity in northern part of the country mainly in the tribal areas (and bordering areas of Afghanistan especially southern region) and consequent large scale population movement to secure areas bringing sudden and significant change in the epidemiological set-up. Location of more than half cases (53%) in 2009 in insecure areas of NWFP and FATA and its spread to other areas reinforces role of insecurity and population movement having led to more dynamic situation for transmission in insecure areas. However, gaps in performance due to unresolved management issues are behind the continuation of polio virus circulation in areas with out significant security problems, Karachi and Killa Abdullah in particular.

An independent evaluation of Major Barriers to Interrupting Poliovirus Transmission in Pakistan was carried out in August 2009. The evaluation team identified insecurity; weak routine immunization program due to inadequate expenditure on the primary health care system resulting in weak health service; inadequate political commitment at district and sub-district level; competing public health

priorities; extensive population movements; and lack of focus in communication strategies on creating public demand as the main challenges faced by the program in Pakistan. The recent Advisory Committee on Polio Eradication (ACPE) meeting in November 2010 concluded that if these barriers are overcome polio eradication can be achieved.

Intensified activities have been implemented in 2008 and 2009; five National Immunization Days (NIDs) and 6 Sub-National Immunization Days (SNIDs) in addition to 7 cases responses were carried out in 2008 and 6 NIDs, 4 SNIDs and 18 case responses were carried out in 2009. The indigenous wild polio virus circulation is contained in few well defined and restricted transmission zones due to these activities and some positive epidemiological features discussed below.

Current Epidemiological Situation: In 2008, 117 cases of wild poliovirus were reported (80 cases P1 and 37 cases P3). To date in 2009 (as of January 11), 87 cases have been reported (59 P1 and 27 P3 and one mixture of both serotypes). Forty six percent of the cases are from one district and two agencies, affected by active conflict (Swat 20, Bajour 15 and Mohmand 4).

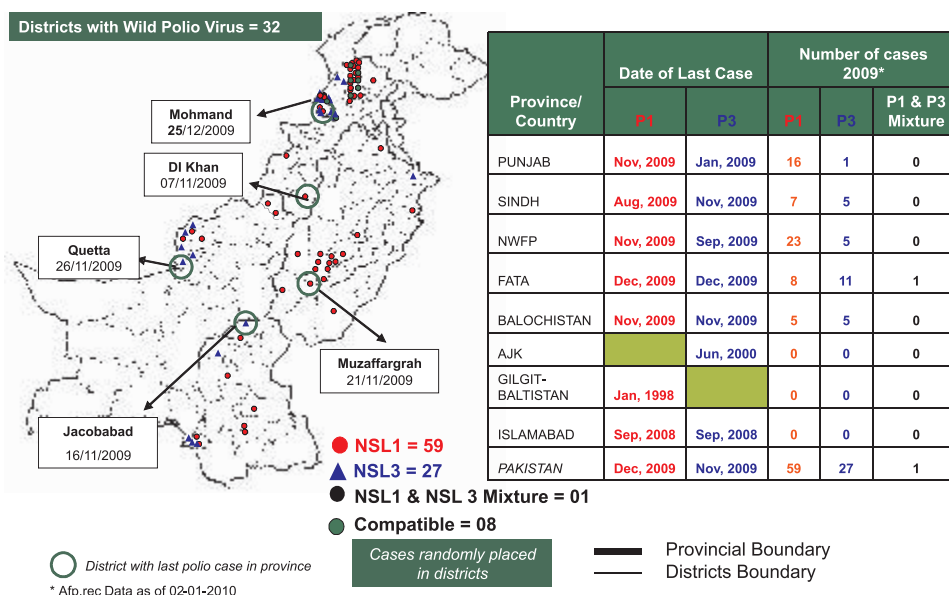
There are 4 distinct epidemiological zones in Pakistan:

Central NWFP/FATA with ongoing circulation of both serotypes (P1 & P3). The main reason for the ongoing circulation is the inaccessibility due to prevailing security situation.

Quetta block (Quetta, Pishin and Killa Abdullah): The circulation in this zone continued due to weak management, operational issues in addition to cultural barriers and refusal to vaccination especially in Pishin and Killa Abdullah. The extensive population movement with active zone of polio virus circulation in southern Afghanistan is putting this zone under continuous risk.

Karachi: Polio virus circulation continued in Karachi during the last four years due to weak accountability at town level. The highest risk group in Karachi is the Pashto speaking community. The health infrastructure, especially primary health care system could not cope with rapid urbanization in Karachi. Massive population movement from conflict affected areas in the Tribal region of Pakistan and southern Afghanistan is a major risk factor for the multiple reintroductions in Karachi;

Map1: Distribution of Wild Polio Virus cases Pakistan 2009*



Central Pakistan (South Punjab, North Sindh and North eastern Balochistan): It is the largest zone. This zone, considered an endemic zone, can better be described as an importation zone for the last 2 years. The accessibility and quality of the supplemental immunization activities is better in this zone compared to the three others.

Remaining parts of Pakistan, other than the 4 zones described above, are polio free for significant period of time although under constant threat of reintroduction from the transmission zones.

Encouraging epidemiological features;

1. Sustained achievement in AJK and Gilgit-Baltistan no polio case for 9 and 11 years, respectively
2. No polio case from the accessible, most densely populated districts of the central NWFP in 2009.
3. On restoration of access to entire Swat district in September 2009, 5 vaccination campaigns in Swat conducted in 14-week period no polio case in the past 10 weeks
4. No secondary WPV3 cases in Punjab following an introduction in January 2009.
5. No WPV1 from large population, Lahore, since mid-August (AFP as well as sewage water sampling)
6. Localization of the importation associated outbreak of WPV1 in southern Punjab
7. No WPV1 in Sindh since mid-August (AFP as well as sewage water sampling)
8. All WPV1 in Sindh linked with new introduction except Sanghar case which is linked with circulation in neighboring Balochistan
9. Reduction in number of infected districts from 7 in 2008 to 4 in 2009 in Balochistan province
10. More than 2/3rd of the cases (83%) are from well identified transmission zones.

Major challenges in accessing children:

The programme faced many challenges in 2008 & 2009; deteriorating security situation especially in Swat district of NWFP and the tribal areas as well as parts of Balochistan; cultural barriers like Hujra and Utaq systems, which have dual effect in reaching the very young infant and recruiting female volunteers; extensive cross border movements with Afghanistan; refusals in a few key districts; lack of accountability at district and sub-district level; and administrative/management issues in some areas.

Steps taken to address the challenges:

Appropriate steps are being taken to address these challenges to ensure that every child is reached during SIAs. The major interventions taken in 2008-2009 to improve the quality of performance through a focus on improvement in the government ownership are: launching the Prime Minister's action plan for polio eradication aiming at strengthening inter-sectoral collaboration (The impact of this initiative was evidenced by stronger partnership with media, education and other sectors); establishing Inter-provincial Polio Eradication Committee (IPCP) under the chairmanship of the Federal Health Minister and membership of the provincial health ministers. The aim of this committee is to sensitize the provincial health leadership about the urgency of polio eradication and strengthen inter-provincial coordination; strengthening coordination with Afghanistan ; mobilizing resources of WHO and other partner agencies to the highest risk areas; revising the training modules and methodologies to improve vaccination teams capacity and hence service delivery; implementing program activities in security compromised areas by recruiting local human resources and adopting opportunistic immunization outside the planned rounds and short interval additional doses (SIADS) especially in Bajour agency and district Swat ; developing province and district specific plans with main emphasis on vaccinating commuter children and marginalized communities and those who are living in high risk areas or belong to high risk population; adopting local approaches for local problems and recruiting local vaccinators to overcome cultural barriers; developing a proactive, data driven communication plan to avert the consequences of misconception about the safety of oral polio vaccine and generate public demand for vaccination. Locally appropriate communications activities were also

developed to overcome the relevant challenges involving local leaders; and utilizing every opportunity to “add on” OPV to activities (i.e.: adding OPV to measles campaign).

AFP Surveillance System:

A well functioning and sensitive AFP surveillance system was maintained in Pakistan during 2008-2009 at national, provincial and district levels, as was confirmed by international reviews.. As outlined in Table 1 (below) Pakistan has continued to meet the international targets and standards in the period of reporting, that is, minimum non polio AFP rate of 2 per 100,000 children aged below 15 years and at least 80% AFP cases have adequate specimens. All AFP cases have clinical examination and epidemiological investigation by qualified medical officers and all specimens collected are tested for poliovirus in the WHO accredited national laboratories, which is also WHO Regional Reference Laboratory.

Table (1) Non-polio AFP rate, stool adequacy and confirmed polio cases in 2008 & 2009

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Table (1) Non-polio AFP rate, stool adequacy and confirmed polio cases in 2008 & 2009

Year	No. of AFP cases reported	Non-polio AFP rate	AFP cases with adequate specimens (%)	Confirmed cases
2008	5344	6.5	92%	117
2009	4903	5.8	91%	87

Supplementary Immunization Activities:

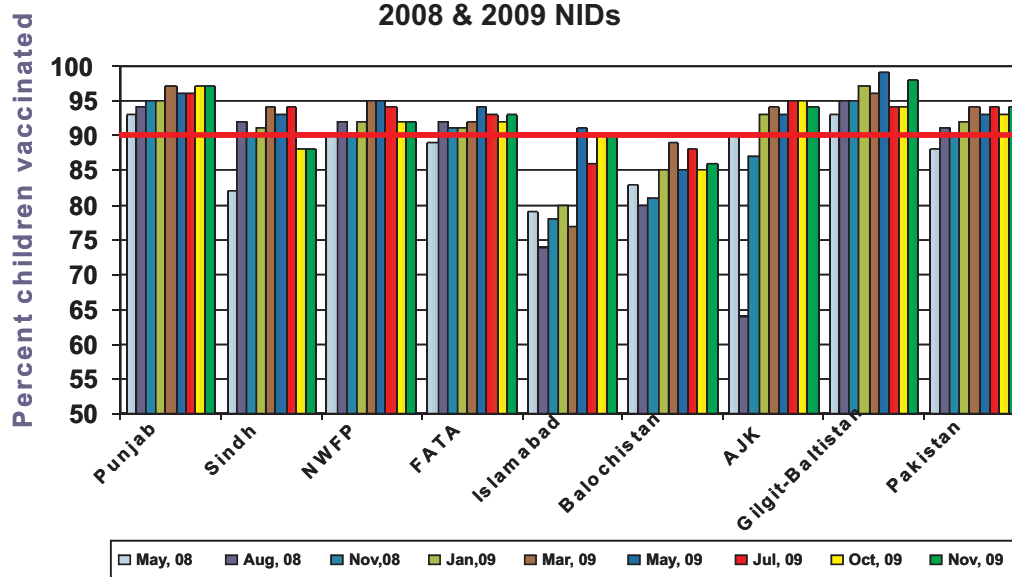
Overall, five NIDs (National Immunization days), 6 SNIDs (Sub-National Immunization days), 5 case responses & two mop-up campaigns were conducted during 2008. In 2009, 6 NIDs, 4 SNIDs and 18 case responses were carried out. In every NIDs almost 33 million and in each SNIDs around 20 million children under five years of age were targeted. The selection of districts in each SNIDs was based on existing poliovirus epidemiology and risk analysis done by using campaign, routine EPI and surveillance data.

Efforts were intensified in all the polio SIAs to improve the campaign quality, supervision & monitoring and to strengthen routine immunization.

Following the decision of the National Steering Committee for EPI that finger/nail marking will be the valid proof of vaccination status of the target children, the data collection is based on proof of finger marking. The TAG recommendations to redo all areas having less than 90% target children vaccinated verified by finger/nail marking were endorsed by the NSC for EPI for implementation in 2009.

In the polio SIAs conducted during 2008 & 2009, the overall percent of children vaccinated was satisfactory with majority of the provinces showing coverage of 90% or more verified through finger/nail marking except Balochistan. However, inconsistency at the district and sub-district level is the main concern. Independent post campaign monitoring was started in March NIDs, 2009 and was conducted after every polio SIAs in the later half of 2009.

Trends for percent children below 5 years vaccinated by finger marking - 2008 & 2009 NIDs



Short Interval Additional Dose (SIADs): The PEI programme in Pakistan is continuously developing new initiatives and interventions to overcome the challenges by making use of windows of opportunities to vaccinate children in security compromised areas. The Short Interval Additional Dose strategy was implemented in Bajour Agency on 8-10 July 2008; Monovalent type 3 vaccine (mOPV3) was administered for the second time after one week period from 1st -3rd July SNID. Similarly SIAD was conducted using mOPV1 in district Swat in October 2009 as soon as accessibility was restored after a period of almost one year. A short interval additional dose activity was also conducted district DI Khan & its adjoining areas in December 2009.

The case response activities & large scale mop-ups were also carried out during this period following the confirmation of new cases in newly infected districts, using type specific monovalent oral polio vaccine (mOPV) in line with the global outbreak response guidelines. The case responses were mostly conducted within two weeks of laboratory confirmation.

Case Response details 2008-2009					
Disctirct	EPID	DONSET	Date of lab confirmation	Date of case response	Children vaccinated
Year 2008					
Mardan Response 1	NW/40/07/089	21-Dec	3-Jan	07-09 Jan	444,406
Mardan Response 2				22-24 Jan	343,269
Mardan Response 3				12-14 Feb	2,413,458
Shikarpur	SD/52/08/007	25-Feb	18-Mar	24-26 Mar	1,046,788
Nowshera	NW/32/08/025	27-Apr	17-May	22-24 May	2,286,017
Kohat	NW/50/08/011	19-May	31-May	19-21 Jun	1,394,118
Batagram	NW/11/08/012	1-Sep	17-Sep	24-26 Sep	725,453
Peshawar	NW/30/08/169	19-Nov	2-Dec	17-19 Dec	1,616,771
Year 2009					
Sialkot	PB/25/09/001	11-Jan	22-Jan	09-11 Feb	2,852,847
Charsadda	NW/31/09/002	11-Jan	29-Jan	09-11 Feb	1,845,078
	NW/31/09/005	19-Jan	3-Feb		

Karachi-Gaddap	SD/63/09/003	27-Jan	14-Feb	23-25 Feb	2,138,613
TT Singh	PB/52/09/006	30-Jan	14-Feb	23-25 Feb	868,538
Kambar	SD/55/09/009	9-Apr	28-Apr	04-06 May	1,801,190
Multan	PB/61/09/037	21-Apr	7-May	13-15 May	190,404
Lahore	PB/31/09/064	23-Jul	4-Aug	10-12 Aug	1,459,286
Sherani	BN/26/09/002	4-Jul	18-Jul	17-19 Aug	15,712
Sanghar	SD/32/09/034	20-Jul	10-Aug	17-19 Aug	321,859
N.Feroze	SD/45/09/024	28-Jul	7-Aug	17-19 Aug	258,651
Sherani	BN/26/09/002	4-Jul	18-Jul	07-09 Sep	15,521
Lahore	PB/31/09/064	23-Jul	4-Aug	07-09 Sep	1,454,428
Killa Abdullah	BN/14/09/010	13-Aug	27-Aug	07-09 Sep	136,367
Bajour	NW/33/09/041	3-Aug	22-Aug	07-09 Sep	730,822
Swat	NW/24/09/021	4-Aug	24-Aug	07-09 Sep	510,078
Tando Allahyar	SD/27/09/022	14-Aug	27-Aug	07-09 Sep	3,511,266
North Waziristan	NW/64/09/015	23-Aug	4-Sep	10-12 Sep	798,881

The case response activities & large scale mop-ups were also carried out during this period following the confirmation of new cases in newly infected districts, using type specific monovalent oral polio vaccine (mOPV) in line with the global outbreak response guidelines. The case responses were mostly conducted within two weeks of laboratory confirmation.

4.3 Stop Tuberculosis

Pakistan ranks 8th among the countries with the highest tuberculosis (TB) burden in the world. An estimated number of 48,000 people died of TB in 2007 (29 per 100,000 populations). The estimated incidence in 2008 of all types of TB was 181 per 100,000 population or 297,000 cases, while that of new sputum smear positive cases was 81 per 100,000 population or 133,000 cases.

Pakistan started piloting the WHO Directly Observed Treatment Strategy (DOTS) in 1995. But case detection remained low until 2001 when the Government of Pakistan declared Tuberculosis a public health emergency (“Islamabad Declaration”). Thereafter, DOTS was expanded rapidly and reached 100% population coverage in 2005. In 2008 the program has reached a 70% Case Detection Rate (CDR) for new sputum smear positive cases and 85% Treatment Success based on the previous WHO estimates of TB incidence. A prevalence survey is planned with technical support of WHO and other partners for 2010/11. The progress until today was made possible through increased Government commitment with sustained financial support, coordination of national and international donors and technical agencies for increased funding and continuous technical assistance and gradual adoption of all elements of the New WHO Stop TB Strategy.



NTP has launched a National Stop TB Partnership in August 2008 and is in continuous exchange with a number of national non governmental organizations (NGO). Under the UN Reform agenda in Pakistan, WHO, World Food Program (WFP), United Nations High

Commission for Refugees (UNHCR), and International Organization for Migration (IOM) are supporting the NTP through their Joint Program Planning Cycle (JPC2) for communicable disease control.

100% DOTS coverage (“DOTS-All-Over”) was achieved in the public sector in 2005. The estimated TB incidence in Pakistan of 181 per 100,000 population or 286,000 new cases per year (WHO Report 2008) has been revised in 2009 based on the onion model and is more likely an underestimate of the true burden of disease. Based on the previous estimates the case detection rate for all types of TB increased from 19% in 2002 to 91% in 2008 and for new sputum positive cases from 13% to 81%. In 2008, 248,115 all forms of TB, including 99,670 new SS+ cases, were notified. The treatment success rate of SS+ cases registered in 2007 and notified to the NTP exceeds 90%. Pakistan is en route towards global targets.

Figure 1: Trends of DOTS expansion, Pakistan, 2001-2008

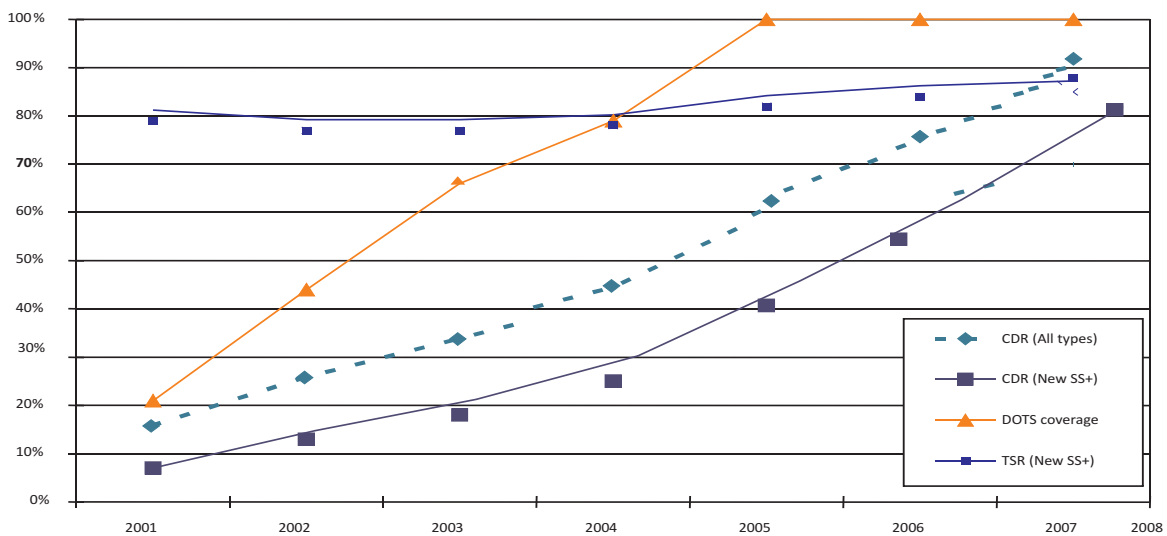
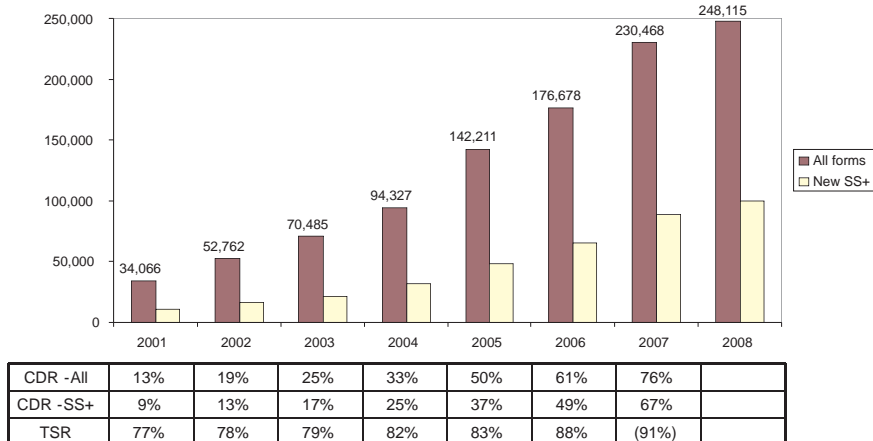


Figure 2: Number of notified TB cases, CDR & TSR in Pakistan (2001-2008)



CDR -All	13%	19%	25%	33%	50%	61%	76%	
CDR -SS+	9%	13%	17%	25%	37%	49%	67%	
TSR	77%	78%	79%	82%	83%	88%	(91%)	

Table 1: Number of notified smear positive cases by province, 2004-2008

PROVINCE	2004	2005	2006	2007	2008
AJK	1353	1221	1086	1297	1271
Balochistan	1859	2720	3343	3660	3558
FATA	918	1033	971	1043	1215
NA's	121	124	139	180	145
NWFP	5887	8554	10063	11874	12342
Punjab	7527	17010	30172	47926	57992
Sindh	12078	16055	18799	21591	22038
Pakistan	31557	48220	65711	88747	99670

Activities and Outputs

The following were the major supported activities and achievements during the biennium 2008 09:

1. *Adaptation of national strategy for TB control 2010-2015 to Stop TB Strategy (draft)*
2. *Revision of NTP guideline for the management of TB in line with New Stop TB Strategy*
3. *Development of drug management guideline and training in drug management*
4. *Strengthened surveillance system through development of new recording & reporting forms*
5. *Strengthened surveillance system through monitoring of National Program Officers (NPO) at provincial and district level; support to management capacity at district level; capacity building at central level*
6. *Impact measurement: prevalence survey protocol developed*
7. *Organisation of annual Joint Partner Reviews 2008 and 2009*
8. *Support to the development of the laboratory network for SSM, Culture & DST*
9. *Identification of a potential supra national reference laboratory (SNRL) in Karachi*
10. *Preparation for countrywide drug resistance survey in 2010*
11. *Support to upscale of Private Public Mix (PPM) through technical assistance*
12. *Development of PPM guidelines*
13. *Technical assistance provided for integration of tertiary hospitals; 29 tertiary hospitals report since 2009 to NTP*
14. *Support for participating in international conferences on PPM*
15. *Support to GF R6 with technical assistance and procurement: development of DR guidelines, successful application to Green Light Committee, training on DR guidelines conducted, procurement of vehicles and laboratory equipment*
16. *Support to GF R8 and R9 proposal (both approved) for improvement in drug management, scale up of Private Public Mix (PPM) with general practitioners and tertiary hospitals for DOTS and DOTS Plus and management of drug resistant Tuberculosis (DR-TB)*
17. *Support to Operational Research (OR) activities*
18. *Participation of program staff in international conferences, training and workshops*
19. **Partnership building:** An Interagency Coordinating Committee (ICC) is coordinating donor support and technical assistance of multiple technical partners since 2003. Each year the NTP and Provincial TB Programs organize in cooperation with WHO a Joined Partner Review on TB care in Pakistan. Recommendations of these reviews are taken into consideration for program decisions. Increase in notifications has slowed down after 2007. Only Punjab Province reported an increase in case notifications and the majority of

districts showed either stagnant or declining case notifications.

20. Operational research expanded to address TB control challenges

- A study supported for 2007 and finalized during 2008 on the extent of under-reporting of TB cases by the private GPs was analyzed in an inter-country workshop on January 2009. The results guided the revisiting of the TB incidence for Pakistan in 2008.
- Estimation of the TB burden in Pakistan through strengthening vital registration.
- Barriers to promote high-quality DOTS at district health system in Punjab Pakistan
- Characterization of drug resistant mutations in XDR strains prevalent in Pakistan development of rapid assays for screening MTB isolates
- To evaluate and address primary default in pulmonary tuberculosis (smear positive) in patients presenting to Chest Clinics of Ojha Institute of Chest Diseases, Karachi
The preparations for the disease prevalence survey supported by TBCAP have taken place such as protocol development and procurement. The main impediment to initiating the survey early 2010 is the current security situation. Several discussions took place to evaluate the situation and revise plans.
- NTP has submitted abstracts that were accepted in the Union conferences as posters or oral presentations.

4.4 Roll Back Malaria

Malaria still remains a major threat to the health of millions in Pakistan particularly in district and agencies with poor socioeconomic status and lacking functional health system for the delivery of quality assured curative and preventive services. Majority of these districts and agencies are located along international borders with Iran and Afghanistan.

History of malaria control in Pakistan dates back to the early sixties, when it started as the malaria eradication programme. After the resurgence of the disease during the early seventies, the programme strategy switched from “Eradication” to “Control”. At the same time it was decided to integrate the programme into Primary Health Care in 1975. This strategic policy shift was in line with the WHO's call for “Health for All”. At present Pakistan is the member of WHO Global Roll Back Malaria (RBM) Initiative, with a commitment to intensify its efforts for effective control of malaria in the country. Since the inception of Roll Back Malaria Programme in Pakistan in 2001, WHO has been the major technical partner of Directorate of Malaria Control in the Ministry of Health providing technical support to the RBM Programme for policy designing, strategic planning, partnership building for resource mobilization and technical inputs for strengthening early diagnosis, prompt/effective treatment, epidemic control and operational research.

The reported Annual Parasite Incidence (API) in 2008 was highest in FATA (4.65/1000 population), followed by Balochistan (API 4.56/1000). The highest number (2249) of falciparum cases were reported from district Zhob of Balochistan in 2008. The percentage of falciparum in all positive cases during 2008 was 24% in the country, highest in Sindh (32.0%) followed by Punjab (29.00%) and Balochistan (15%). Punjab remained the least endemic with focal outbreaks in districts bordering with Sindh, Balochistan and NWFP. The situation analysis done by the WHO STC and the WHO NPO along with the provincial team revealed that the strategy of malaria control in Punjab should be changed from control to pre-elimination to avoid resurgence of malaria and prevent focal outbreaks.

Districts /agencies sharing the major burden of disease cases in 2008

Number of cases	Name of districts
> 5000 <10,000	Khyber Agency in FATA and district Zhob in Balochistan
>3000<5000	Jaffarabad and Killasaifullah in Balochistan, North Waziristan in FATA, Khairpur and Umrekot in Sindh and Buner in NWFP
>1000<3000	Badin, N.Shah, N.Feroze, Mirpur Khas, Mithi, Sanghar, Shikarpur, Larkana, Dadu and Thatta in Sindh, Bajor, Kurram, Mohmand, S. Waziristan in FATA, Mardan in NWFP, Pishin, Bolan, Jhalmagsi, Bella, Kharan, Panjgur, Kech, Gawadar and Noshki in Balochistan
>100<1000	Remaining districts fall in this category

Objective of the WHO biennial support for the year 2008-09 was to Strengthen the capacity of the national malaria programme for the development of effective partnerships and resource mobilization

Activities and outputs during 2008-09

Major outputs by the Programme through WHO biennial support during biennium 2008-09, were the services of WHO Technical Officer Roll Back Malaria, updating the national guidelines and training manuals for the treatment of malaria, fellowships in regional training courses, support to Health Services Academy for the conduction of Post Graduate Diploma Course in Medical Entomology and Vector Control, situation analysis in the Province of Punjab and support for the development of Global Fund R-9 proposal for Malaria Free Punjab. Details of the major activities carried out during 2008-09 are as follows.



1. Services of the WHO Technical Officer Roll Back Malaria for strategic guidance and policy designing for 2 years.
2. National Symposium of Vector Control experts to develop the curriculum of PGDME&VC and to develop the faculty to conduct the course at HAS Islamabad.
3. Financial sponsorship for the conduction of the above mentioned course
4. Training of Global Fund R-7 Project Management M&E Manager in the use of RDTs in Yemen.
5. Fellowships (12) for field entomologists from national and provincial programmes in Field Entomology and vector control in Bandar Abbas Iran
6. Fellowships (6) for the International Diploma Course in Bandar Abbas Iran in 2009.
7. Training of provincial and national data operators and epidemiologists in "WHO Global

Data Base” for malaria reporting held in Lahore. The training was facilitated by the Regional Office in the EMR.

8. Provision of WHO STC services for situation analysis, needs assessment, strategic planning and gap analysis for the Province of Punjab in 2008.
9. Technical and financial sponsorship of Global Fund R-9 proposal development focused on malaria free Punjab. WHO also supported the participation of country team in training workshop for the development of R-9 proposal held in Cairo in 2009.
10. Celebration of World Malaria Day on 25th April 2008 and 2009 at National and Provincial level through sole support of WHO.
11. Facilitation and support in operational research as the monitoring of drug efficacy survey 2008-09, molecular epidemiology of vivax malaria in Iran, Afghanistan and Pakistan
12. Support for cross border coordination development amongst Iran, Afghanistan and Pakistan for joint collaboration to effectively control malaria in bordering districts of the 3 countries through the establishment of PIAM Net (Pakistan-Iran-Afghanistan Malaria Network) and hosting the 3rd and 4th Cross Border Meetings in Shiraz-Iran and Islamabad Pakistan
13. Provision of antimalarial drug Primaquine for the radical treatment of vivax malaria
14. Catalytic role to develop partnership with international development partners, donor agencies and the UN specialized agencies.
15. Technical support also provided in designing of various technical documents, as Case Management Protocol, Training Manuals both for microscopists and care providers developed through the financial support of Global Fund R-7 for training in target districts
16. Contribution in the implementation of Global Fund R-7 activities in target districts. The WHO has been the major contributor in the implementation of R-7 planned outputs and to ensure the quality of delivered outputs.

4.5 HIV/AIDS and STDs

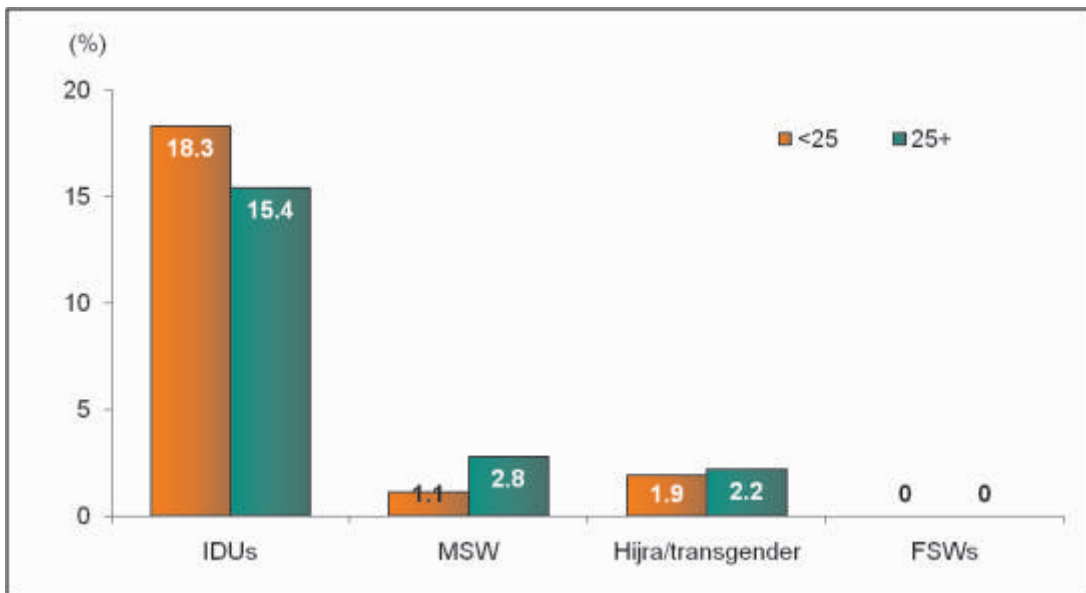
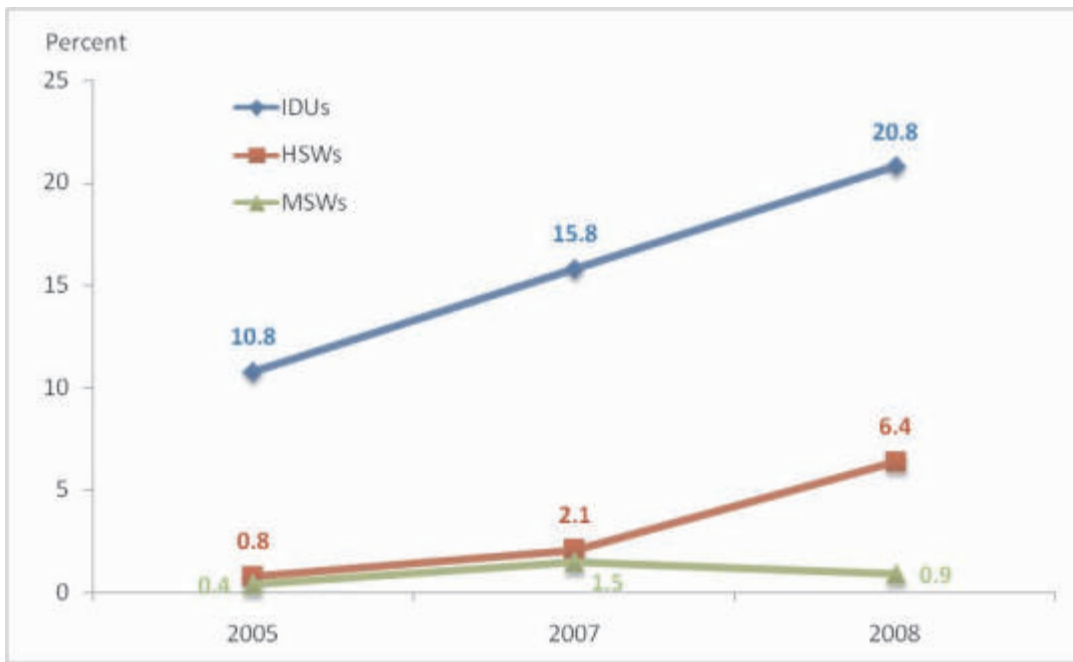
Globally, the HIV/AIDS pandemic continues to sweep across continents: the number of estimated adult HIV infections has increased dramatically to over 33.4 million (31.1 million-35.8 million) in 2009. It has killed more than 25 million people since it was first recognized in 1981. The HIV pandemic is disproportionately affecting the developing world, while infections are decreasing in some populations, 95% of these are in low-and-middle income countries, particularly in sub-Saharan Africa, and in South and Southeast Asia. The annual death toll due to the disease exceeds 2 million, including over 0.2 million children.

We are now seeing changing trends of the disease where the epidemic appears to have stabilized in most regions, although prevalence continues to increase in Eastern Europe and Central Asia and in other parts of Asia. Sub-Saharan Africa remains the most heavily affected region, accounting for 71% of all new HIV infections in 2008.

Asia's epidemic has long been concentrated in specific populations namely IDUs, sex workers and their clients and men who have sex with men. Infection in most of the countries are following the Asian Epidemic model of Tim Brown. Injecting Drug Use remains a major driver of epidemic in Asia. Region's comparatively heavy burden is due to the presence of long standing trafficking routes for illicit opium. Similarly HIV prevalence in this population is highest among all high risk populations.

The first case of AIDS in Pakistan was reported in 1987 in Lahore. During the late 80s and 90s it became evident that an increasing number of Pakistanis, mostly men, were becoming infected with HIV while living or traveling abroad. Pakistan is currently facing a concentrated epidemic amongst injecting drug users (IDUs) with a national HIV prevalence at 20.8%. Trailing behind are Male Sex Workers in whom prevalence is rising alarmingly in certain cities.

Data indicates that most infections occur among people between the ages of 20-44 with men outnumbering women by a ration of 7:1. Sexual transmission via both heterosexual and homosexual routes accounted for the majority of reported HIV cases in Pakistan (37%). Meanwhile transmission via drug injection accounted for 21% of infections. HIV infection through contaminated blood and blood products accounted for 7% of total reported HIV cases and infection through vertical transmission from mother-to-child was attributed to 1.3% of cases as shown in figures below:



Since the detection of first case of HIV in Pakistan in 1986 more and more cases are registered with the National programme and till end of 2009, 5000 cases of HIV have been reported by the National AIDS Control Programme. The actual number is believed to be much higher 97,400 (WHO/UNAIDS, est.), owing to the stigma attached to the disease leading to under-reporting. Of the reported cases with known transmission routes, the most predominant was injecting drug use (nearly 74%), followed by heterosexual relations, men who have sex with men and mother-to-child transmission. With yearly Surveillance rounds it is found that HIV epidemic is fully established in IDUs of whom 20% are infected with HIV. Nascent epidemics are seen in some cities among MSM, and HSWs. In Karachi, the HIV infection rate has recently increased from 4% to 7.53% among MSM and from 1.6% to 3.04% among HSWs. Round 2 IBBS results also revealed an emerging epidemic among HSWs and MSMs in some other cities i.e. Larkana and Bannu. Biological data on FSWs has not yet revealed any significant increase in the prevalence of HIV among this crucial group. On the other hand nearly all registered patients in HIV clinics are expatriate migrant workers, their spouses or children who picked infection while working outside the country.



Pakistan has been regularly conducting Integrated Biological and Behavioral Surveys (IBBS) since 2005. An increasing trends of HIV prevalence is observed in IDUs and MSWs. On the other hand encouraging results were shown in the second surveillance round on knowledge and attitudes and practices of High Risk Groups. However the overall HIV knowledge levels are low since 70% of most-at-risk populations have yet to acquire comprehensive knowledge about HIV and its transmission modes.

Currently the number of drug users in Pakistan is estimated to be about 500,000, of whom an estimated 100,000 inject drugs. Recent biological and behavioural data on HIV clearly indicates a widespread concentrated epidemic among IDUs with highly prevalent risk behaviors such as use of non-sterile injecting equipment, sexual contacts with other high-risk groups like FSWs, MSMs and HSWs, and low condom use.

The second most important high risk group in Pakistan is MSM (Men who have Sex with Men) estimated to be 19,320 in twelve major cities. Similarly throughout the country there is a significant

number (estimated 14,725 in twelve major cities) of highly mobile population of transvestites, transsexuals and eunuchs known as Hijras, who commonly indulge in unsafe sexual practices. The data from last two rounds of IBBS and various other studies also indicate an emerging HIV epidemic among MSMs and HSWs in at least two major cities with highly prevalent risky behaviors such as low condom use and sexual networks with IDUs and FSWs.

Pakistan's Federal Ministry of Health established National AIDS Control Programme (NACP) in 1987. The development of NSF-one in 2001 provided strategic vision to the national response and government of Pakistan with support from World Bank launched an enhanced response in the form of Enhanced HIV and AIDS Control Programme (EHACP). This had a focus on High Risk Groups with established of HIV treatment centers all over the country. Presently 13 such centers are functioning all over the country with a funding support from GFATM Round 2.

Second National Strategic Framework (2008-2012) with core strategies of building up the right capacity, and scaling up of program delivery has been developed and costed. Similarly national HIV and AIDS policy and legislative framework is also in place.

Achievements of National Programme

- Development of second National Strategic Framework (2008-2012);
- Media campaign to raise awareness among general adult population about the methods of HIV transmission and its prevention at the time of World AIDS Day;
- Promoting active involvement of other ministries and departments like Ministry of Education, Ministry of Narcotics, Ministry of Religious Affairs and others.
- Development and implementation of protocols and operational guidelines in a number of areas like PPTCT and Pediatric AIDS guidelines, guidelines for laboratory diagnosis of HIV and AIDS, HIV and TB collaborative activities.
- Initiation of a new blood safety programme in the country in collaboration with GTZ and WHO;
- Establishment of 13 Antiretroviral (ARV) treatment centers all over the country to provide treatment to AIDS patients;
- Development of National Monitoring and Evaluation (M&E) Framework to feed into policy and programme planning;
- Establishment of National Network of PLHIV;

WHO support

World Health Organization continued its support to the national and provincial AIDS Control Programmes. During the last biennium WHO worked in all areas that have been assigned to it under UN division of labor. *Thus some of the achievements during biennium 2006-2007 are as follows:*

1. Free and quality assured testing for HIV for patients from NWFP, AJK and Islamabad in Pakistan Institute of Medical Sciences (PIMS). All HIV positives presenting in this center of excellence undergo free baseline tests and CD4 and viral load testing free of cost but quality assured. This is a crucial support to these poor patients since they are unable to bear the cost of these expensive but crucial testing.

2. Training on National STI guidelines. WHO developed a national guidelines for syndromic management of STIs in the last biennium. The guidelines consisted of flow charts, training modules for the trainers and posters to be used by health care providers. In this biennium we trained master trainers in all the provinces in collaboration with UNFPA. These trainers would now impart training of other health care providers in their own respective provinces.

3. Development of National PPTCT guidelines and guidelines for Pediatric AIDS. WHO hired a

national consultant for development of national guidelines for Pediatric AIDS based on Baylor Institute training module. In collaboration with UNICEF the final guidelines for prepared and printed. Later trainings were imparted to health professionals from all provinces on the developed guidelines.

8. Technical assistance for the development of GFATM proposals. WHO was totally involved in the development of HIV and AIDS component of GFATM proposals for the 8th and 9th rounds of GFATM.. Both the times WHO conducted a regional level training workshops for development of GFATM proposal where officials from NACP participated. Through pooling of resources national and international consultants were hired that ultimately developed the proposals.

9. Training of health care providers on Parent to Child Transmission of HIV. WHO in collaboration with UNICEF organized six day training for doctors, paramedics, psychologists and NGOs on interventions that is needed to prevent transmission of HIV from mother to child. Nearly 40 participants, actually working in PPTCT sites, from all over the country, were trained.

10. Capacity building of staff from National and Provincial AIDS control Programme by training them in WHO collaborated excellence centers in the World. Several staff from the Programmes were sent to these training centers. The areas in which these trainings were held are: HIV and AIDS Surveillance, Voluntary Counseling and Testing strategies, Harm reduction interventions, Management of STIs, ART therapy monitoring and ART resistance monitoring.

11. Technical assistance to the Programme. Full time dedicated staff is placed in all Provincial Programmes and at national level to support the Programme. Moreover staff was also provided to run the ART center in PIMS.

4.6 Vaccine and Sera Production

The National Institute of Health (NIH) is the sole producer of vaccine and sera in the public sector. Measles vaccine and Tetanus Toxoid are manufactured for the use of EPI while other products such as anti-snake venom, anti-rabies serum, rabies vaccine, typhoid vaccine and allergy vaccines are used by public sector hospitals and dispensaries, armed forces and a very small portion by the private sector. Technical and financial supports of WHO through JPRM has helped NIH in the training of manpower, quality improvement and in upgrading of vaccines and anti sera production facilities. New master formulae and standard operating procedures developed and documented according to the current GMP and GLP. National Control Authority & National Control Laboratories for Biologicals of Government of Pakistan closely monitor the activities through regular inspections, along with guidance and trainings of the production, quality assurance and quality control staff in the efforts of achieving objectives of provision of safe and good quality vaccines by NIH to the people of Pakistan.

Objectives

1. To achieve WHO qualification, quality assurance and control of vaccines/antisera
2. Acceptance of products of NIH by UN agencies for use within and outside the country

Activities and Outputs

During the biennium 2008-09, WHO provided technical support to the National Institute of Health for achieving the WHO pre-qualification for vaccine and sera production through foreign consultants and training abroad, capacity building, research. Development of

guidelines to achieve WHO pre-qualification for production of vaccines and sera was also carried out. The following were the major supported activities and achievements during the biennium:

1. Technical support for a Plan of Action: Technical support in the form of hiring of short term consultants was provided to prepare a plan of action to raise the level of quality control standards for production of EPI vaccine like Measles vaccine and Tetanus toxoid. Different vaccine units were improved and upgraded according to the minimum current GMP.

2. Fellowships programmes: Fellowship training for scientists to establish cell bank at NIH for production cell lines, bacteria viruses and toxins and senior level scientists in Quality Assurance and documentation in cCMP at WHO, GTN, and one fellowship for environment monitoring and air balancing HVAC system were arranged.

3. Logistic support: in order to enhance the capabilities of different manufacturing units of vaccine development department of NIH logistic support in the form of equipment, spare parts, reference standard, antisera was provided. The expansion of stables has been completed which will lead to the enhancement of anti snake venom serum and other life saving anti sera.

4.7 Prevention of Rabies

Rabies is an invariably fatal but eminently preventable acute viral disease of CNS caused by a virus belonging to rhaboviridae family. This disease is considered as a re-emerging zoonotic disease throughout the world. Infection occurs through inoculation of the virus present in the saliva of infected animals. It causes approximately 50000-60000 deaths per annum globally, 99 percent of which are of canine origin and the main vector in most cases is dog. Rabies satisfy all the WHO criteria for diseases that are a priority for control and unlike many other emerging zoonosis safe and effective animal and humans vaccines are available for its prevention and control but despite this, rabies remains a neglected disease that is poorly controlled most of the developing world i.e. Asia, Africa where much humans deaths occur due to rabies.

Pakistan like other Asian countries i.e. India, Nepal, Bhutan and Bangladesh, where no province/district can be declared as a rabies free area. The most vulnerable population are those living in the remote/isolated rural areas of the country, and as such are exposed to stray dog, cat and other domestic and wild animals. Children age 5 and above and young adults males are mostly exposed to this disease due to their outdoor activities. The surveillance and monitoring system is not very effective and animal bite data available at HMIS captures only 22 percent of the total data and it gathers information from public sector facilities only. The number of reported cases with HMIS during 1994-1997 were 102, 346, 1998-2000, 174, 631, 2001, 70, 744, 2002, 65, 370, 2003, 79, 589 and in 2004 till Jan 498 cases respectively.

The data on rabies is a tip of iceberg in the country because of not existing of surveillance system in the country only few centers have reported rabies cases such as Anti Rabies Centre; Lahore reported 12, 18 and 6 rabies cases in 2003, 2004 and 2005 respectively. Referral Rabies Centre at NIH has only available data of 32 rabies cases during 2000 to July 2007.

Since 2005 India has abandoned using SBV (Sheep brain vaccine) and Switched over to TCV (Tissue

Culture Vaccine) and several multinational companies have started producing and supplying TCV at nominal rates to the Government of India and same policies should be implemented in Pakistan so that people can get quality and cost effective treatment against this dreadful disease.

There is no legislation for pet and stray dog elimination and disposal is practiced on limited scale. Killing is done by gun shoot method and strychnine poison. So far no proper measures have been taken for the dog population control and garbage dump removal from the cities to cut down the sources of food supply for the community/stray dogs.

Only Veterinary Research Institute, Lahore is doing DFA test on killed animal brain tissue. Post exposure treatment blood test for neutralizing antibodies is done at NIH, AFIP and Aga Khan Hospital, Karachi using Eliza method. Treatment with SBV is still in practice, however tissue culture vaccine and human immunoglobulin is also freely available in the market. Enhancement of general public awareness for seeking timely treatment can prevent this fatal disease.

Objectives

1. To prevent mortality and morbidity due to Zoonotic diseases.
2. To create awareness among general public to seek proper treatment for animal bite cases

Activities and Outputs

During the biennium 2008 - 09, WHO provided technical and logistical support for data collection of both animal bite and rabies cases was done in order to develop a national strategic plan and capacity building of health professionals from the selected health facilities in case management and reporting of rabies and dog bite cases. The following were the major supported activities and achievements during this period:

1) Programme Implementation Support:

- Strengthening of National Referral Center for Rabies Control at NIH.
- Supported technical advisory committees and the implementation of a national plan for the management of rabies.
- Organized a meeting in Islamabad with provincial coordinators of Technical Assistance Committee to identify provincial resource centers.
- Prepared a management protocol for rabies control in local languages.

2) Training Courses for Health Care Workers:

- Organized four mass media awareness workshops to create awareness of rabies amongst the general public.
- Conducted six refresher courses for facility-level workers to update their knowledge and skills on the management of rabies.

3) Production of Health Education and Advocacy Materials:

- Published 12000 posters on the treatment guidelines.
- Printed 6,000 booklets regarding health awareness on rabies in Urdu.

4.8 Disease Surveillance and control

Every year several outbreaks of communicable diseases occur in various parts of Pakistan, which result in heavy economic burden on families and local health facilities, some of which are waterborne gastroenteritis/ diarrheal diseases, typhoid, hepatitis A& E, while others are either vector or airborne or droplet such as viral Hemorrhagic fever, measles, meningitis etc. Most of these diseases are preventable if measures are adopted to detect them at the earliest stages by taking timely preventive and control measures. Dengue previously unknown, appeared in Pakistan and has infected people in

different districts of the country, as investigated jointly by the NIH and WHO. There were major outbreaks in Karachi and Lahore in 2008. The dengue fever has led the health authorities to revise the strategy of Malaria Control Program to include prevention and control of dengue fever in its folds.

At the same time, diseases like CCHF, measles, meningitis, hepatitis, Leishmaniasis, typhoid and diphtheria, are sporadically occurring as a regular feature and posing as public health threats in many parts of the country. Over the years, there has been an overwhelming increase in acute watery diarrhea outbreaks reported from all over the country attributed to the supply of contaminated water.

Recently the appearances of Influenza like illnesses have overwhelmed the existing health infrastructure. There were numerous outbreaks of Avian Influenza in the country with only one human case in 2007 and 2008 till the appearance of much expected novel Pandemic virus that is now a great threat for the public health system in the country. The challenges are both in proper screening/detection of cases and a prompt diagnosis by the public health laboratory. The Influenza A H1N1 has posed a serious challenge of training of health care providers in the proper case management and infection control. From June 2009 onwards there have been more than 100 confirmed cases of Influenza A H1N1 in different cities of Pakistan (as of January 09 2010).

Outbreaks of communicable diseases render populations vulnerable to increased morbidity and mortality. Effective control depends upon improved and early detection, outbreak verification and effective response along with timely warning through notification of such diseases.

The Ministry of Health along with WHO as its partner takes the opportunity to commend the efforts being made in identifying and pursuing a sound policy for health development through control of communicable diseases and focuses on critical public health interventions, lowering the burden of disease and identifying the health needs generated by emergencies along with capacity building are the main areas in its program under Communicable Disease Surveillance and Response (CSR).

Objective

The goal of this communicable disease surveillance and control system is the early detection of epidemic-prone diseases and offering a rapid response with appropriate disease control measures in order to reduce morbidity and mortality in the affected population. The following are the objectives of the program:

- To reduce morbidity and mortality in the community and improve the health of the common man by limiting the spread of epidemic causing diseases
 - To improve the capacity of the health manpower in detecting epidemics by integration of DEWS into the district health system and to apply DEWS methodology as part of an integrated surveillance of communicable diseases nationwide
 - To improve epidemic investigation, recommended clinical case management skills and response capacity of health care providers for outbreaks of communicable diseases, like Pandemic Influenza A, H1N1, Gastroenteritis, Avian Influenza, , Dengue Fever, Malaria, Meningitis, Measles, Pertussis, Diphtheria, Hepatitis and Viral Hemorrhagic Fever (VHF).
 - To monitor disease trends with a view to understand the dynamics associated with the occurrence of communicable disease outbreaks across Pakistan.
 - To predict the upcoming communicable disease outbreak threats and issue advanced alerts to the relevant stakeholders so as to ensure preparedness.
 - Coordinate with international agencies for prevention and control of communicable diseases.

Achievements

The WHO is collaborating with the NIH in its task to investigate epidemics and other communicable diseases and also with other concerned health departments at Federal and provincial level. This collaboration has the following methodology and standardized techniques for the prevention of epidemic causing diseases prevalent in the country:

- Surveillance and Response through Disease Early Warning System
- Strong Laboratory support for the lab based surveillance
- Forecasting through Seasonal Awareness & Alert Letter

During the biennium technical support was provided to the epidemic investigation cell of the National Institute of Health (NIH) in the investigation and control of epidemics such as diarrheal diseases, CCHF, Dengue Fever, Avian Influenza and Influenza A H1N and in training of public health care providers.

In 2008-2009; 281 outbreaks alerts and rumors were investigated/ responded to by the EIC at the national level. The hub of disease prevention and control activities is the Epidemic Investigation Cell (EIC). Since its inception in 1998, the EIC has developed a system of immediate outbreak investigation and response. Three provincial EICs are also functioning at Sindh, NWFP and Punjab.

Following are the details of outputs where WHO has been providing its technical and logistic support through DEWS during the biennium 2008-09:

1) Seasonal Awareness and Alert Letter (SAAL)

The communicable diseases have a relationship with the seasons and weather conditions. For the purpose of pre-epidemic preparedness, an on going activity **the SAAL** is published and circulated widely thrice in a year, as the seasons change in Pakistan i.e. winter, Spring-Summer and Summer-Autumn issues. The 'Medium And High Alerts' are based on the statistical analysis of the epidemiological trends of the diseases in Pakistan to prepare the health authorities and professionals at all levels about the epidemic prone diseases in the upcoming season(s).

2) Case Definitions for communicable diseases

- The Case Definitions have been updated and printed and dispatched to the district authorities as readily available recommended guidelines for training and quick response.
- Specially developed National Guidelines were circulated in case of emergence of new epidemics, which appeared on a national/ district level like Dengue Fever or had threatened to affect as a global/regional pandemic /epidemic (e.g., Avian Influenza and Swine Flu A/H1N1).
- DEWS introduction (a leaflet) brochure developed as a brief about introduction of DEWS and its functioning.

3) Routine Tools of Disease Early Warning System (DEWS)

Printing of the reporting forms (line List) were developed according to the nature of an epidemic and dispatched to the concerned province/district and/or hospitals to obtain the daily feedback through line-listing.

4) Capacity building

Regular training workshops for capacity building of health professionals have been conducted as an ongoing activity under WHO-MoH Program on DEWS. Workshops have been held in Lahore, Islamabad, Peshawar, Quetta, Hyderabad and Muzaffarabad. More than 500 health workers have been trained during the 2008-09 through different workshops and meetings.

5) National Task Force

The WHO provides technical support for the National Task Force that has been constituted by the Ministry of Health, Government of Pakistan for surveillance and control of communicable diseases in

the country. The workshop was held twice during the biennium. The members of the force reviewed the situation arising in the country from emerging and re-emerging diseases to develop a key strategy for enhancing the emergency preparedness capacity and put up a timely response.

6) Laboratory Supplies

It has been a regular feature to provide lab supplies and reagents to the NIH from the WHO assistance funds, which is a strong component in the field of epidemic detection, prompt diagnosis and response to avert/ limit or contain the spread of disease.

7) Field visits

The WHO national surveillance officer was sent to different districts in case of Dengue fever, Avian Influenza, CCHF and Gastroenteritis out breaks to assess the situation, investigate, bring samples to NIH, analyse data and put up response to the communicable diseases and also to train the local manpower in epidemic response and DEWS methodology. The national surveillance officer continues to provide technical support to the NIH to maintain proper functioning of DEWS components including data collection, analysis, reporting, Alert/outbreak investigation and response.

III. The Unity of Health and Development

1 UN Reform in Pakistan

To assist the Government of Pakistan in meeting the global targets of the Millennium Development Goals, the various components of the United Nations system has to coordinate its efforts at the country level. The United Nations Development Assistance Framework (UNDAF) is a collective response to national challenges identified in the Common Country Assessment (CCA) focused on social, political and economic development.

Pakistan is one of eight UN Member States selected in 2007 to pilot the UN reform along with Albania, Cape-Verde, Mozambique, Tanzania, Mozambique, Vietnam, and Uruguay. Since the creation of the UN, the international community has, over the years, increased the number of UN agencies and mandates in response to emerging global challenges. Furthermore, despite globally recognized successes and achievements, over time this has resulted in somewhat fragmented and multifaceted programs and projects at the country level. Currently, 18 UN agencies are functional in Pakistan, working in a range of development, emergency and environmental areas. Thus, the rich diversity, know-how and experience accumulated over 60 years need to be better channeled and maximized for the ultimate benefit of the people of Pakistan. The report of the UN Secretary General's highlevel panel on System-wide Coherence 'Delivering As One' responds to this concern and advocates for deep reform of the United Nations System. The 'Paris Declaration on Aid Effectiveness' endorsed by the international community called on partners, donors, UN and Governments to eliminate unnecessary competition, duplication and overlap of agendas. This makes it imperative for the UN to work as 'Delivering as One', around clearly articulated national goals. This is more likely to result in better and more efficient delivery of social services, and better coordination for a more focused and effective UN system to help achieve the Millennium Development Goals by 2015.

The High Level Panel co-chaired by Pakistan's Prime Minister approved the UN reform framework that provides the highest level endorsement for formulation of the One Program. In late 2006, the Government requested its continuing collaboration with UN in the country to be on the basis of the "delivering as one" principles espoused in the report of the High Level Panel. Consequently, the UN Reform in Pakistan was formally launched by the Prime Minister on March 1, 2007.

Based on the Common Country Assessment, and covering the period 2004-2008, Pakistan's earlier UN Development Assistance Framework (UNDAF) was agreed and signed by the Government of Pakistan in late 2003. In 2007, as an integral part of piloting UN Reform in Pakistan, it was decided to: (a) extend the UNDAF by two years to the end of 2010, facilitating the alignment with the National Medium Term Development Framework; and (b) to review it towards better focus and response to the rapidly evolving development needs of the country.

Responding to the principles embedded in the extended UNDAF and to the Government's new priorities, the UN Country Team works closely with their federal and provincial partners, the civil society organizations, private sector, academia and donors to develop the One Program in Pakistan that rests on five thematic pillars. Individual agency country program action plans were reviewed, development situation analyzed through inclusive multi stakeholder reviews, SWOTs carried out, lessons learnt logged, national development results achieved through

2007 examined and strategic reprioritization by UN agencies resulted in development of the one program focused and directing the UNDAF for the extended period 2009-10.

In the new aid environment, the UN has structured its collective contribution around those comparative advantages for which the organization is recognized. Drawing from the findings and recommendations of the detailed situational analysis for the joint program development, the UN has aligned its support to national priorities, focused on the organizations comparative advantage with respect to other actors, provided support to unmet needs and built on past lessons and ongoing efforts.

“Delivering as One” is the central pillar for piloting UN reform in Pakistan through maximizing its normative and analytical expertise, its operational and coordination capabilities and its advocacy role in a coherent, effective and efficient manner. The UN entities will come together as One Leader, One Program, One Office and One Budget, with the One Program being the central pillar of the Reform. The other three “Ones” will support the formulation and implementation of the One Program.

The One Program will rest on the global standards established at the various platforms of the UN and to which Pakistan has acceded especially, the broad coverage provided under the Universal Declaration of Human Rights and the Millennium Declaration. Making the best use of the UN's mandate, neutral political position and convening power, One Program will deliver **advocacy** messages during its implementation. The rights-based approaches to development programming will facilitate the One Program to reach out to those areas and groups who do not readily benefit fully from growth as well as support Government's strengthening of democratic structures and systems of good governance.

The more cohesive One Program and the UN Country Team will be a more effective participant in **policy research and policy discussions** and a more powerful advocate of UN policies and values. Increased consistency and coherence of policy advocacy will enable the UN to speak with one voice and to create space for individual agencies to take a more proactive approach to agency-specific policy areas.

In the formulation of the One Program, the UN Country Team ensured the inclusion of a number of key lessons which had emerged from earlier UN efforts. These will also be major drivers for the implementation of the One Program:

- 1. Success with capacity building and technical assistance depends upon as much on the quality of the relationship and the process by which it happens as on the quality of inputs themselves.** The participating UN Agencies at all times and at all levels will focus on building strong and mutually-respectful partnerships.
- 2. Duplication is to be avoided and quality of activities enhanced by improving coordination** between implementing partners and other stakeholders through effective partnerships among Government, participating UN organizations, donor community, civil society organizations and the private sector.
- 3. UN assistance will be used to strengthen national capacities in formulation and implementation of nationally-owned reform policies, programs and projects**

funded by Government and others, particularly in those areas where participating UN agencies have demonstrated a comparative advantage. In particular, attention needs to be paid to strengthen policy oversight in planning, budgeting, monitoring and coordination as well as gender mainstreaming of policy tools.

4. ***Stronger strategic focus on governance reform, coupled with a shift towards policy advice*** will enhance the sustainability and impact of UN assistance. Support to good governance measures at all three tiers (Federal, Provincial and District levels) will be important. Further extension and deepening of economic reform requires continued progress in political, administrative and legal reforms. Greater public participation, increasing respect for the rule of law and enhanced accountability and transparency are needed to protect citizens, in particular those who are most vulnerable.
5. ***Strengthen access to and improve the quality of social and protection services*** to bridge the sizeable gaps in the provision of health and nutrition, education, water and sanitation, community development and the growing disparities between the rich and the poor, men and women as well as boys and girls.
6. ***Harmonization of resource mobilization around the One Program will promote coherence of national, UN and donor efforts.*** Limited funds should be deployed catalytically and supplemented with other resources mobilized for Joint Programs with pass-through arrangements to promote harmonization among development partners.

Opportunities and Challenges: The UN Reform thus afforded Pakistan, a unique opportunity to work better together to 'Deliver as One': with one UN Country Team, under the leadership of the UN Resident Coordinator, one harmonized, integrated and focused UN Programme covering the most pressing developmental issues facing Pakistan in health, education, poverty, HIV/AIDS and disaster management; full ownership and participation by the Government of Pakistan and its citizens; and one single management and administrative system, to reduce transaction costs, maximize agencies' and donors' inputs. The UN agencies in Pakistan are thus determined to transform themselves into a better system, with a stronger unity of purpose, coherence and efficiency.

Political Commitment: On 1 March 2007, the then Prime Minister launched the "One UN" initiative in Pakistan in the presence of the Minister of State for Economic Affairs Division, the UN Assistant Secretary-General and Regional Director for Asia-Pacific, and the UN Resident Coordinator. Subsequently, a high-level committee comprising of Government officials, donors, UN agencies and civil society representatives was constituted to steer the reform exercise set up. A roadmap was then developed for periodical updates on UN reform progress in Pakistan, which is regarded as the future of all UN activity globally.

Joint Programs

As a result of the refocusing and revision processes, outcomes of the UNDAF have been streamlined and reduced from 48 to 16. Initial results to be delivered in the piloting timeframe during the period 2008-2010 will be primarily achieved through the implementation of the priority Joint Programs in the five focus areas:

1. Agriculture, Rural Development and Poverty Reduction
2. Health & Population,
3. Education,
4. Environment,
5. Disaster Risk Management

The four cross-cutting themes of human rights, gender equality, civil society engagement and refugees are an essential part of the One Program. The Government and the UN Country Team are committed to addressing those issues in a holistic and integrated manner, ensuring that they are treated harmoniously within the Joint Programs.

Joint Program components - Health and Population

The health system in Pakistan is currently going through reforms at the federal, provincial and district levels particularly, to improve the access by the poor to health services. For reforms to be successful, it is essential that these are based on clear evidence, are aligned to an overall vision for health development, and make a difference to the health of the population that is in greatest need of essential health services. The health profile of Pakistan is characterized by a high population growth rate, high infant and child mortality rates, high maternal mortality ratios, and a high burden of communicable diseases. High fertility rate and low CPR are also of concern for a country of limited resources and already with a large population. Communicable diseases account for around half of deaths in Pakistan. It is extremely important for the UN to address this very important area by concentrating on hepatitis, TB, malaria, diarrheal diseases, respiratory diseases and vaccine-preventable diseases and HIV/AIDS.

JP Component 1: MNCH and FP/RH in the context of PHC

- JP Outcome 1.1:** Public and not for profit services and strategies for integrated Maternal Neonatal and Child Health (MNCH) and Family Planning/ Reproductive Health (FP/RH) services are consistently implemented.
- JP Outcome 1.2:** Community demand and participation and inter-sectoral linkages for MNCH & FP/RH services are improved
- JP Outcome 1.3:** Nutrition status especially of infants, young children and child-bearing women is improved

JP Component 2: Communicable Disease Control

- JP Outcome 2.1:** Morbidity and Mortality due to vaccine preventable diseases reduced; Expanded Program on Immunization, Polio Eradication and Measles elimination programs have achieved their targets
- JP Outcome 2.2:** TB & other priority endemic disease controlled
- JP Outcome 2.3:** Malaria Incidence Reduced and an integrated National Program for zoonotic and vector-borne diseases are operational at national, provincial and district level
- JP Outcome 2.4:** An integrated communicable disease surveillance and outbreak response system is operational at federal, provincial and district level

JP Component 3: Nutrition, Health Promotion

JP Outcome 3.1: Knowledge and practices for health promotion (attitudes, behavior/lifestyle) avoidance of health risks and disease prevention are improved (Nutrition related)

JP Outcome 3.2: Nutritional status of the population is improved

JP Component 4: Health Systems Development

JP Outcome 4.1: An effective system of Human resources development for Health and Population is adopted

JP Outcome 4.2: An equitable, effective health and population financing system is in place

JP Outcome 4.3: Policy and management decisions by Federal, Provincial and District government on health and population issues are evidence based using research and improved information system

JP Outcome 4.4: Effective systems for management of medical technologies are used

JP Outcome 4.5: Quality assurance and regulation systems in public and private services delivery are used

JP Outcome 4.6: Governance in health and population systems is significantly improved

JP Outcome 4.7: Capacity of Health and Population sectors for Gender mainstreaming in programs is improved

JP Component 5: HIV and AIDS

JP Outcome 5.1: HIV Transmission is contained in the vulnerable groups by contributing 10% towards National Strategic Targets

JP Outcome 5.2: Multi-sectoral opinion leaders take up and integrate HIV & AIDS issues in their program portfolios and policies (Govt., religious leaders, media, parliamentarians, employer & workers reps, educators, agriculture extension workers)

JP Outcome 5.3: Accessibility & utilization of quality treatment by all People Living with HIV (PLHIV) is improved (focus women & children)

JP Outcome 5.4: Support for all persons infected & affected by HIV is increased through strengthening CSOs working with PLHIV (focus on women & children) (support: social, spiritual, economic, etc)

WHO and the UN Reform Process: The UN Reform process in Pakistan, has placed the World Health Organization country office in a highly advantageous position from several perspectives, and served to considerably enhance its technical leadership and advisory role. WHO co-chairs the Health and Population TWG along with UNICEF and is represented on all the four remaining TWGs, including those on environment, education, disaster risk management, and agriculture, rural development and poverty. This position is highly

conducive to better alignment and harmonization of inputs of all health related UN agencies with governmental priorities, promotion of WHO's normative standards and guidelines, and strengthening linkages with all partners creating a unique opportunity for improved efficiency and better outcomes. The process has also led to the recognition of the true health priorities and its centrality to overall socio-economic development, paving the ground for greater resource mobilization and allocations for the health sector. The UN Reform process also exerts greater influence over other health development partners and agencies working in other sectors to address the social determinants of health, such as poverty, education, provision of safe water and better sanitation and emergency preparedness. Furthermore, the sharper focus placed on health policy and health system issues, has secured wider recognition for the role of WHO. In addition linkages with other TWGs have led to better emphasis on collaborative programs such as those for school health, community organization, gender mainstreaming, nutrition, safe water, sanitation and emergency preparedness in association with those sectors. The process, however, poses a challenge to WHO and underlines the need for strengthening the country office in order to enhance its convening, advisory and advocacy capacity, and enabling it to shoulder a shared responsibility in implementation, supervision, evaluation, and capacity building of all health programs. The 'One UN' initiative has also drawn significant attention to the comparative advantages of WHO in policy/guidelines development, strengthening the health system, setting standards and tools, conducting health research, coordination, information system, and evaluation of the health system and its various programs.

The UN reform process is thus regarded by WHO as an opportunity to bring all the agencies engaged in Health under one coherent vision aimed at converging efforts and optimally utilizing their comparative advantages. During her visit to Pakistan in May 2007, Dr Margaret Chan the WHO Director General reaffirmed that WHO was a strong and practical partner in the UN Reform process in Pakistan, which is expected to increase the visibility and effectiveness of the UN system. Among the many partners working in the health sector, WHO is the lead agency and has the unique responsibility of setting and propagating the international normative guidelines and standards for public health. It also has a capacity building role of assisting Pakistan in adapting global public health aspirations into achievable developmental targets. These technical areas range from strategic policies and programmatic interventions to the application of good practices in maternal, neonatal and child health, in controlling communicable diseases, adapting a healthy life style and mobilizing the necessary humanitarian health action during mass disasters. The reform process will enable WHO and the other health focusing UN agencies to implement their assistance through joint programs that can generate greater outcome despite our modest resource contribution. The main objective of this reform is not only to 'Deliver as One' but also to 'Deliver Better' as collective partner of the national health development process. Through this initiative, the government will have an effective one UN partner on the other hand the development partners will be confident about their resources being managed more effectively and efficiently. Further progress on this significant initiative was achieved during 2008 and substantial headway towards the fulfillment of mutually shared goals of the Government and the UN System in Pakistan.

Annual Workplans:

In order to move forward and closer to implementation, annual work plans of joint

programmes (JPs) have been developed which ensure the operationalization of the results frameworks incorporated in the respective Joint Programme Documents (JPDs). The consistency of outcome and output statements across the strategic and operational level documents is pertinent. The Results and Resources Matrix of One Programme Document (OPD) was also developed through extensive consultations with Government of Pakistan (GoP), Civil Society Organizations (CSOs), Donors and other development partners. The Annual Work Plan (AWP), which elaborates the outputs of the Results Matrix, is developed through a planning exercise preceded by annual reviews of JPs. The work planning exercise is conducted in the last quarter of every calendar year.

Purpose of Joint Annual Work Plan:

Identify what results the Joint Programme aims to achieve in the coming 12 months to:

- Contribute to One Programme/UNDAF targets/goals
- Contribute to gender equality and women empowerment, human rights, refugees and civil society participation goals;
- Contribute to implementation a human rights based approach to development in projects/programmes
- Ensure involvement of all stakeholders in the development of Joint Annual Work Plan.
- Ensure meaningful participation of stakeholders from all areas where UN activities will be implemented.
- Highlight the linkages/logical flow between the UNDAF outcomes and JP Outcomes.
- Indicate that how these UNDAF outcomes will be achieved through the JPC outcomes, outputs and activities.
- Provide a clear demarcation of roles and responsibilities of UN agencies, and Implementing partner agencies (CSOs, Govt. and other partners).
- Indicate JP outcomes and outputs for year 2010 with quarterly milestones.
- Indicate geographic focus for each activity
- Provide an indicative budget for each activity with sources of funds (core, non-core, one fund, expanded window etc.)

One UN Funding Window

US \$ 3 millions became available through one UN window for Health & Population Joint programmes which has been distributed among different JPCs of H & P joint programme based on needs & priority and capacity of the JPC.

OTHER PARTNERSHIPS IN HEALTH

A. Memoranda of Understanding:

Agreement with USAID (October 3, 2008)

The United States Agency for International Development (USAID) and WHO signed an agreement on October 3, 2008 for US\$ 290,000, for the humanitarian response for flood affected displaced population, targeting the caseload of 823,000 into account (of which 100,000 were in camps), and aiming at reducing avoidable mortality and morbidity among IDPs, returnees from affected populations and host communities. The assistance was

augmented by additional US\$ 600,000 on March 11, 2009.

Support from DFID (October 15, 2008)

The Department For International Development (DFID), United Kingdom supported WHO with US\$ 287,739 on October 15, 2009 against Pakistan Humanitarian Response Plan (PHRP) 2008 for the IDP crisis in NWFP.

Swedish support for IDP and flood crises (October 16, 2008)

Swedish International Development Agency (SIDA) provided US\$ SEK 2,000,000 to WHO on October 16, 2009 against Pakistan Humanitarian Response Plan (PHRP) 2008, for provision of health services to IDPs, returnees from Bajaur Agency and flood affected people of NWFP and Punjab.

Agreement with the USAID (June 10, 2009)

The United States Agency for International Development (USAID) signed an agreement with WHO on June 10, 2009 for provision of US\$ 1 million for disease and nutritional surveillance, early warning system and outbreak response to the IDP crisis in NWFP. This assistance was amplified by additional US\$ 1 million on July 7, 2009.

Support from the Government of Italy (July 2009)

The Government of Italy afforded financial support of EUR 1 million in July 2009 to prevent excess mortality and morbidity associated with acute watery diarrhoea (AWD) among the IDP population living in the hosting districts of NWFP (Peshawar, Charsadda, Mardan, Nowshera, Lower Dir and Swabi). The objectives were:

- To enhance the service delivery of a standardized package of primary health care service through implementing partners in IDP camps and in host communities
- To ensure uninterrupted provision of essential medicines and medical supplies to support service delivery at different levels of health facilities
- To improve health services by training health care providers working with health cluster partners and the Department of Health in IDP-hosting districts
- To strengthen IDP referral services i.e. ambulance transportation and support to referral hospital for provision of specialized care

Support from the Government of Norway (July 2009)

The Government of Norway provided NOK 26 million (US\$ 4.04 million) in July 2009 to support the Health Cluster for IDP crisis in NWFP. The main objective was to provide primary health care services to the vulnerable population in the conflict affected districts mainly Swat and Buner.

Agreement with ECHO (August 31, 2009)

ECHO and WHO penned an accord for financial assistance of EUR 2 million on August 31, 2009 by ECHO for strengthening of the referral services (provision of ambulance services) from camp to the secondary/tertiary care hospitals (especially pregnant ladies) and support to the secondary and tertiary care health facilities to cater the specialized health care needs of conflict affected populations.

B. Partnership and Linkages With NGOs

WHO has developed linkages and built partnerships with a number of national and international development and relief agencies, like: Kashmir International Relief Fund (KIRF), Lajnat al Dawaa al Islamiah (LDI), UNDP, Islamic Relief, UNFPA (United Nations Family Planning Association), WFP, National Education Foundation (NEF) and World Wide Fund for preservation of nature (WWF) in the area of Basic Development needs in Azad Jammu and Kashmir (AJK). This resulted in the establishment of Women's Vocational Training Centers (WVTCs), the construction of schools and provision of safe drinking water to the rural population living in the project area.

WHO has also established a collaboration with ENI-Lasmo for a BDN project in Dadu, Sindh. Lasmo is engaged in oil exploration in the Sehwan area and is also involved in social uplift activities through the BDN programme which has established health centers and education institutions. They provide Primary Health Care Services in 168 villages and hold six camps every month. A computer Training Centre in Jhangara and three Vocational Training Centers in TRK, Chinni and Kai have been established.

RESOURCE MOBILIZATION TO ENHANCE INVESTMENT IN HEALTH

It is the WHO strategy to mobilize funds from all potential donors. Below are a few of the additional sources of funds that have been added to the normal JPRM funds for 2008-09:

1) Global Alliance for Vaccines and Immunization Health System development (GAVI - HSS)

Pakistan qualified for the GAVS HSS funding worth 57 million US\$, for a period of 5 years from 2008-2012. The HSS proposal was divided into two parts, with the first phase covering a period of two years, 2008-2010. The three objectives were; improve national maternal health care and EPI coverage to 70%, enhance the capacity of district health system, and improve the involvement of communities and CSO.

The proposal also provided for institutional strengthening through Technical Assistance of one International and five National Program Officers. The newly established Health System Strengthening & Policy Unit (HSS&PU) is envisioned to provide technical and health policy guidance to the Ministry through data and information analysis, interpretation of programmatic achievements and bottlenecks, and develop mechanisms for enhancing the supervisory and monitoring role of the Ministry of Health. In addition, the HSS&PU will be coordinating and monitoring the implementation and progress of GAVI HSS supported activities. To show long term commitment and sustainability to this initiative the Ministry is supporting the HSSPU in developing a PC 1 for the second phase of GAVI HSS Project.

The first tranche of US\$ 16,898,500 was disbursed by GAVI in August 2008. However, actual implementation of activities commenced from October 2008. The first year designated activities will be completed by December 2009, wherein a significant proportion of the proposal targets will be achieved despite the initial starting delays. The 2nd tranche of US\$

6,626,000 was approved in principle by the GAVI Secretariat in September 2008; and will assist in completion of a number of key activities. A new proposal will be introduced for a next phase from 2010-2012, based on the achievements and experiences of the first phase.

The GAVI HSS activities are geared towards supporting maternal and child health services at the district and community levels, through imparting trainings to relevant health care providers (on IMNCI, EmONC, EPI, Zn Sulphate) along with requisite equipment support (Salter baby weighing scales, IMNCI equipment, essential neonatal care unit). Integration of services has been fostered through collaboration of vertical programs at the top, district and community levels (LHWs and EPI programs in Routine EPI training of LHWs). Likewise, procurement of IMNCI medicines through the LHWs Program will be made available to the Rural Health Centres (RHCs) through the MNCH program. Similarly establishment of Neonatal Units at the District Health.

The GAVI HSS project focuses sharply on increasing the routine EPI coverage by training the nearly 100,000 strong cadre of Lady Health Workers on immunization, with a view to achieve at least more than 70% immunization coverage for children under two years of age. This activity alone has the potential to address the stagnant and poor child health indicators, with particular reference to the low national Routine EPI coverage in Pakistan (47 %, PDHS, 2007). In this context, a total of Rs. 129 million had been allocated in the first phase of GAVI HSS Project to train 18,122 LHWs in Routine EPI in 38 districts across Pakistan. The first batch of 1955 LHWs in three districts of Punjab has been fully trained and able to vaccinate children as of December 2009, while all the remaining batches will be trained during the first half of 2010 and all will be operational by Oct 2010. All the facility level trainings (LHWs) in all the districts are expected to conclude by October 2010. This important training activity has fostered an integrated planning and co ordination exercise amongst the three stakeholders, namely LHWs Program, EPI Program and WHO

2) Global Drug Facility (GDF)

This is a mechanism to expand access to and availability of high-quality TB drugs to facilitate DOTS expansion. Despite there having been a cure for half a century, TB still kills almost 2 million people globally a year. Although there have been some successes in the battle against this disease, the rise of HIV and multi-drug resistant (MDR) TB have slowed the fight in recent years. The treatment of TB in the form of DOTS is wholly dependent on the adequate and timely supply of quality drugs to those who need them. Some of the current problems are insufficient financing, shortages of the drugs, limited capacity of countries to procure, store and distribute drugs, weak health infrastructure and poor quality drugs. The targets are to detect over 70% of cases and cure 85% of these by 2005. If the situation of drugs supply does not improve, these targets will not be reached until 2012.

The Global Drug Facility (GDF) has already provided the National TB Control Program with complete treatment courses for 320,000 TB patients for the years 2008-2009. Furthermore, NTP can apply for a second term in order to prolong GDF support beyond 2009.

3) Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM)

The Global Fund was created to finance a dramatic turnaround in the fight against AIDS, tuberculosis and malaria. It is estimated that these 3 diseases kill more than 6 million people

each year, and the numbers are growing. This massive scaling-up of resources will support aggressive interventions against all the three diseases. With this funding of the new and existing programs, millions of lives will be saved and the spread of the diseases could be stopped that will cease the devastation to families, communities and economies around the world. As a partnership between governments, civil society, the private sector and affected communities, the Global Fund represents an innovative approach to international health financing.

The successful application of Pakistan to the Global Fund to Fight HIV/AIDS, TB and Malaria (GFATM) in the last rounds for Roll Back malaria & Stop TB is the result of the close partnership of WHO and GoP, where the WHO had been actively involved in proposal preparation. WHO is a member of the Country Coordinating Mechanism (CCM) chaired by the Federal Secretary for Health. Other members include representatives from the Ministry of Planning, Education, related UN Agencies, Department for International Development, UK (DFID) and local NGOs.

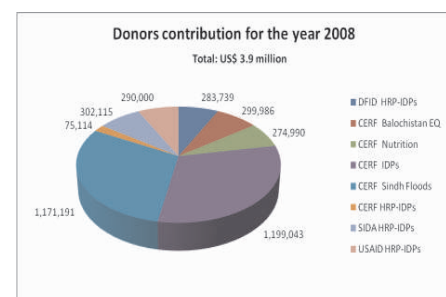
4) Global Alliance for Vaccines and Immunization (GAVI)

The Ministry of Health is committed to improve the routine immunization coverage in the country. An amount of Rs 11.484 billion has been committed under Federal EPI PC1 for year 2004-5 to 2008-9 for this purpose. In addition to the GOP and EPI partners contribution the support received from Global Alliance on Vaccine and Immunization (GAVI) through which approximately US\$ 32.5 million for strengthening immunization services has been awarded for meeting the priority needs of the programme for the period 2003-4 to 2007-8. Pakistan has successfully introduced Hepatitis B vaccine in the immunization programme since 2002 with the assistance of GAVI. To further improve the quality of the programme from mid 2006 EPI Pakistan will introduce DPT-Hep B (Tetravalent vaccine). The cost of the vaccine will be jointly funded by GAVI and GOP under GAVI Bridge Financing. Year 2005 was the last of the three years GAVI support of injection safety. The overall support under this head was US\$ 9.510 million. From 2006 onwards GOP will procure the required number of AD syringes and safety boxes from its own resources. Within Pakistan, the staff of the GAVI unit at NIH is funded by WHO EMRO and the WHO Country Office provides management and administrative support.

5) Resource Mobilization for EHA in Pakistan:

To handle the grave humanitarian crisis associated with the IDPs, various organizations initiated their humanitarian initiatives/operation mainly encompassing shelter, food and health. Notwithstanding various support programs, the magnitude of health interventions necessitated increased resource mobilization to cater for the needs of the most vulnerable in the targeted areas.

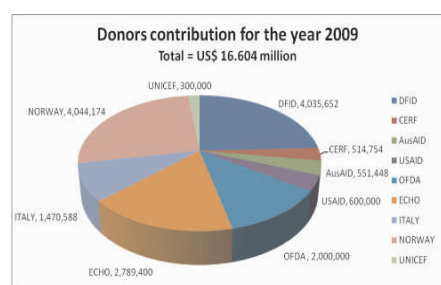
The first Pakistan Humanitarian Response Plan (PHRP) was launched in September 2008, having 7 partners, 10 projects amounting to USD 9.26 million. The PHRP was first revised in February 2009, with 9 partners and 13 projects requesting for USD 15.9 million. In March 2009, based on the PHRP, a prioritization statement was developed in which health sector requested for an immediate funding of



USD 2.47 million.

The current revised PHRP was launched in May 2009 with 22 partners having 28 projects requesting for over USD 42 million. As of December 31, 2009, the Health Cluster received 20,380,286 (48%) of the total funds (Source: OCHA-FTS).

Interaction with development partners was maintained through several meetings, briefings, and constant information-sharing. Subsequently, information regarding utilization of funds was also shared with the donors keeping in view the larger picture of the overall resources required. The donor relations were also carried out through OCHA.



In order to determine the funding for various health needs, the Health Cluster partners were constantly kept on board, and their proposals were communicated to the donors. This effective communication resulted in timely release of funds. The subsequent disbursement of funds to various partners was executed through a judicious evaluation procedure, keeping in view their capacity, past experience, work force especially female healthcare providers, financial standing,

operational infrastructure, reporting history and various other similar aspects. During the execution phase, the funds utilization was continuously monitored on the basis of established criteria.

During 2008-09 emergency humanitarian interventions were supported by DFID, CERF, AusAID, SIDA, USAID, UNICEF, OFDA, ECHO, governments of Italy and Norway.

Donors	2008		2009		Total US\$
	Projects	Amount US\$	Projects	Amount US\$	
DFID	HRP-IDPs	283,739	HRP-IDPs	4,035,652	4,319,391
CERF	Balochistan EQ	299,986		-	299,986
CERF	Nutrition	274,990		-	274,990
CERF	IDPs	1,199,043	HRP-IDPs	460,398	1,659,441
CERF	Sindh Floods	1,171,191		-	1,171,191
CERF	HRP-IDPs	75,114	HRP-IDPs WASH	54,356	129,470
AusAID		-	HRP-IDPs	551,448	551,448
SIDA	HRP-IDPs	302,115		-	302,115
USAID	HRP-IDPs	290,000	HRP-IDPs	600,000	890,000
OFDA		-	HRP-IDPs	2,000,000	2,000,000
ECHO		-	HRP-IDPs	2,789,400	2,789,400
Italy		-	HRP-IDPs	1,470,588	1,470,588
Norway		-	HRP-IDPs	4,342,017	4,342,017
UNICEF		-	HRP-IDPs	300,000	300,000
Sub-total		3,896,178		16,603,859	-
Grand Total					20,500,037

The Health Cluster Concept Paper was developed by WHO during May 2009 soon after the launch of Pakistan Humanitarian Response Plan (PHRP). The Concept Paper focused on the ground realities in the affected districts, emerging health needs, gaps and urgent financial assistance required for relief

and early recovery interventions. The paper was used as an advocacy tool for resource mobilization and was also made available on WHO website.

A range of information materials was developed to apprise the donor community on the ongoing health interventions by the Cluster partners. Weekly health cluster bulletins and morbidity & mortality reports are disseminated amongst all concerned regularly. The donor community is updated on a regular basis concerning the progress of ongoing projects and future assessments.

By all standards, resource mobilization activities of WHO Pakistan were a huge success during 2008-09, leading to successful implementation of the health component of the relief operation. This was duly acknowledged and appreciated by various national authorities and also at several international forums. This function requires utmost urgency, enthusiasm and transparency in order to convince all stakeholders about the genuine requirement for resources and subsequently their timely and judicious utilization.

IV Media as a Vital Strategy for Promoting Health



Media and WHO

Dissemination of accurate information through media facilitates in bringing in an effective behavioral change in a society on health issues. WHO enjoys close liaison with the National media (Print & electronic) for the timely and effective coverage of health issues in the media.

Communications tool

WHO Website an effective communication tool of informing public on health issues. The WHO website www.who.int is updated on regular intervals and provides up-to-date information on WHO, its role, objective and health areas it works in to its millions of users. WHO is synonymous for accurate and factual information provider to information seekers.

Monthly WHO Newsletters WHO Country office publishes monthly newsletters/bulletins that are disseminated to all the stakeholders and concerned health departments and line ministries to keep them informed on the WHO's health interventions planned and introduced and on all the latest developments taking place in the area of health in Pakistan.

Scope of media in Pakistan

There are around 2000 national and regional independent newspapers listed in the Government of Pakistan's Central Media List which are published in English, Urdu and regional languages. In addition to that, there are 500 registered national and international news agencies in Pakistan with 4 leading national news agencies namely Associated Press of Pakistan (official news agency), Pakistan Press International, NNI and Online.

Moreover, there are 103 registered national and international tv channels in the country with Pakistan Television Network (PTV) being the state run network.

Furthermore, all leading international media networks and agencies such as BBC, CNN, Al-Jazeera TV, APTN, Fox, Reuters, Voice of America, Eastern Television Network (ETN) and Voice of Germany are also in present.

Regional Director meets with Prime Minister of Pakistan



Dr. Hussein A. Gezairy, WHO-EMRO Regional Director visited Pakistan (8-11 January 2009) and held talks with Prime Minister of Pakistan,

The Regional Director paid a courtesy call on the Prime Minister of Pakistan Syed Yousaf Raza Gilani on the 9th of January 2009. The meeting was also attended by the Minister of Health, Ms Shahnaz Wazir Ali, Special Assistant to the PM on the Social Sectors, the Parliamentary Secretary of Health, Federal Secretary Health, Director General Health, Dr M. H. Wahdan, Special Advisor to RD for PEI and the WR Pakistan.

The PM welcomed the RD and expressed his support and alignment of his government to the social sectors, and stressed that health and education will not be affected by the budgetary cuts that will need to be effected on other development sectors of the government, in view of the global economic crunch. He acknowledged WHO's role in public health and commended the Regional Director's experience first as Minister of Health in the brotherly Kingdom of Saudi Arabia and subsequently on his long tenure as the RD denoting the confidence which the Member States attribute to his leadership.

The RD thanked the PM for paying special attention to health issues and to the Polio Eradication Initiative in particular by launching mass campaigns in the recent past. The RD briefed the Prime Minister about the global support that Pakistan receives in this field and the high investment that the WHO contributes every year in PEI implementation (US \$ 25 million per year). The RD raised the issues with the PM of consolidation of national commitment to PEI and routine EPI acceleration as a commitment to the MDGs (RD briefed the PM about the new strategy through which WHO is supporting the government to train initially 20,000 LHWS on vaccination skills to join the EPI drive targeting and reaching a coverage rate of 90% and above through action and demand creation), controlling of the growing epidemic of Hepatitis viral infections B & C in the country by promoting universal child vaccination against hepatitis B and injection safety strategies in the country and ensuring the timely purchase of polio vaccines and use of UNICEF as a procurement channel as this will ensure the quality, cost-effectiveness and prompt dispatch and distribution of these vaccines and prevent delays that

hamper attaining program goals, ensuring universal access to essential services in the framework of comprehensive and integrated primary health care. In this context, the RD outlined the need for social protection where measures for health insurance are to be designed for implementation.

In his response, the PM fully supported the Regional Director's public health focused priority interventions and indicated that the three programs i.e. PEI, PHC and Hepatitis Control will be regarded as “the Prime Minister Program” and accordingly will receive his highest priority and support. The PM indicated the need of his country to achieve the goal of polio eradication at the earliest possible opportunity, and desired to launch the “Prime Minister's Action Plan for Polio Eradication” which will include key national and provincial operational steps to be pursued to achieve the goal of eradication.

Prime Minister Syed Yousaf Raza Gilani appreciated WHO's role in Polio eradication

Launching the three-day National Immunization Days in the Prime Minister House on 24 November, 2008, the Prime Minister Syed Yousaf Raza Gilani said the government is fully determined and dedicated to achieve the target of a polio-free Pakistan. The Prime Minister urged the Ministry of Health that no eligible child be missed.

PM Gilani commended the services of WHO, UNICEF and Rotary International for their support in achieving the targets. Referring to Prime Minister's Healthcare Initiative he stated that the Program aims at improving the quality of healthcare units and providing better facilities of healthcare to the people. The Prime Minister said the government a new health policy is in the offing. He said a number of health initiatives are showing satisfying results. These included polio eradication initiative, hepatitis control, MNCH and Lady Health Workers (LHWs) Program. He said the LHWs' project is a landmark initiative conceived by his leader Mohtarma Benazir Bhutto who always worked for the uplift of womenfolk. Prime Minister Gilani inaugurated the polio eradication campaign by administering the polio vaccine drops to the children under five years of age.

Regional Director Meeting with Minister of Health

The Regional Director also had a meeting with H.E. the Minister of Health Mir Aijaz Hussain Jakhrani, H. E. the Secretary of Health Mr Suleman Ghani, and the Director General Health Prof Rashid Jooma on 9th January 2009 to interact on priority technical collaborative issues prior to the meeting of Inter Provincial Committee on Polio (IPCP). The range of issues on which a joint consensus for action and prospective development was reached includes acceleration of PEI and EPI, building on the significant progress made over the years and addressing the major programmatic challenges to be extensively discussed in the IPCP, promoting primary health care and health policy development where the MoH and WHO agreed to enhance the health policy development process with active participation from WHO. The policy will incorporate the sharp government focus on the universal primary health care implementation also taking into account the recent integrated primary health care reform initiative being carried out in the Punjab. In this context, the design of health services package for each level of care to be universally implemented in the entire country was promulgated as a key national strategy for achieving 'Health for All' and MDGs in the national context, control of Hepatitis B and C viral infections, the UN



'Delivering as One' was also discussed in which key public health components such as Health Systems, MNCH, Nutrition and Health Promotion, Communicable Diseases Control including HIV/AIDS Control are addressed. A National Health Research Strategy (NHRS) will also be developed to identify priority research areas such as institutional research capacity and inter-sectoral aspects of health research. WHO is poised to provide the necessary technical support for the development of this strategy. The RD also emphasized on the government focus to raise the National Regulatory Authority to an internationally acceptable operational level by a greater investment and management design. RD also highlighted the WHO assistance towards National Medicines Regulatory Authority. The Regional Director discussed Direct Financial Cooperation with the MoH where WHO funds allocated for capacity building and training can only be transferred to the programs through a national account administered by MoH. The RD also outlined that this will prevent the direct transfer of funds to the program managers (not an auditable process) to a MoH account that can be audited and managed by the government. The MoH assured the Regional Director to take immediate steps to resolve the matter. The meeting concluded after arriving at a mutually shared vision and complete consensus on all the above issues and the Minister for Health commended the WHO technical collaborative role in Pakistan.

The Regional Director attends meeting of Inter-Provincial Committee on Polio, Islamabad

Regional Director of WHO Dr Hussein A. Gezairy attended the National Inter-Provincial Committee on Polio (IPCP) on 9th January 2009 at the Ministry of Health in Islamabad, chaired by the Federal Minister of Health. The meeting brought together senior representatives from the four provincial health departments and AJK, FATA and FANA. The Federal Secretary Health, DG Health, representatives from UNICEF, WHO and Rotary International attended the meeting. Presentations by the National EPI

Manager and provincial managers were made indicating the PEI and routine EPI implementation, the successes attained, challenges faced and the proposed interventions envisaged to interrupt the wild poliovirus transmission in the country. The RD, in his remarks, outlined the long and challenging journey made by Pakistan in PEI and the successful milestones achieved during the recent years. The RD indicated that Pakistan is close to achieving the goal of polio eradication provided the outstanding operational challenges are effectively addressed, particularly those related with campaign quality and universal access and coverage. It was recommended that the PEI / EPI



management at the provincial and district level will be improved by consolidating the oversight support role of the provincial steering committees chaired by the Chief Secretaries, the Health Departments' Steering Committees chaired by the Ministers for Health and the District Task Forces chaired by the DCOs ensuring full ownership, accountability and effective management of program operations from its planning, surveillance, campaign implementation and its overall management, ensure the universality of vaccination coverage in every district and eliminate the transient gaps that exist between different districts, tehsils and union councils aiming at achieving over 95% coverage rate during each campaign.

WHO collaborated “Inter Country Essential Newborn Care Course for Training of Trainers” held

Inter country Essential Newborn Care Course for training master trainers was held at MCH training Centre, PIMS, Islamabad from 2nd to 6th of February 2009 with support from WHO HQ Geneva. The

training was arranged by National MNCH Program in collaboration with WHO Pakistan. Eighteen participants, six from Afghanistan and twelve from all over Pakistan, were trained as Master Trainers by Prof. Ghazala Mahmood Course Director, Prof. Mahmood Jamal, National Facilitator, Dr Saverin Von Xylander wpro, Dr Tekendra Karki from Nepal, Dr Anoma Jayathilaka from WHO Sri Lanka and Sandra Lang from UK.

The WHO Essential Newborn Care Course Training Manual based on Pregnancy, Childbirth, Postpartum and Neonatal Care (PCPNC) was used during this training. The Course was inaugurated by Executive Director Pakistan Institute of Medical sciences (PIMS), Islamabad. The course very interactive and participants took keen interest in the process. The class room sessions, clinical practice, videos and role plays went very well. The closing ceremony was attended by Executive Director, PIMS and WR Pakistan. The participants were divided in groups of 6 and were trained as three independent trainings in three different rooms. The Obstetric Department of Pakistan Institute of Medical Sciences, which is having a good load of work including more than 30 deliveries per day was used as Clinical Practice area.



Donation of US\$3 million worth of medicines for Influenza (A) by WHO

WHO donated more than US \$3 million worth of medicines for influenza A (H1N1) to the Ministry of Health on June 15. This initiative was part of the millions of adult courses of Oselatmivir (Tamiflu) the WHO has distributed to countries requiring assistance to protect its people against the new disease.

WHO Representative Dr. Khalif Bile formally handed over 200,024 adult doses of Oselatmivir to Minister of Health Mr. Mir Aijaz Hussain Jhakrani at a brief ceremony held at the WHO Office. The Minister expressed hope that the arrival of the anti-viral medicine will boost the confidence of health workers to strengthen surveillance and ensure appropriate and equitable response activities in the eventuality of an outbreak of the disease in Pakistan.



The National Tuberculosis Control Program (NTB) developed a TB Brand planned to release the video of TB Song

In order to create uniformity in TB communications and services throughout the country and to minimize duplication and a clutter of TB messages, the NTP developed a TB brand which will be used for branding of both public and private sector TB establishments. Titled 'Together,' and complimented by the tagline 'Life Wins', the brand seeks to promote public-private partnership in the realm of TB control. The eight petals in the flower signify the 8-month DOTS treatment



process. The color transitions from grey to green reflect the recovery process and represent 'hope'. Moreover, a video of TB song titled (Translation: Let us Visualize; Together, Let us Pledge) was launched on World TB Day 2009, highlighting the importance of DOTS, the WHO-recommended treatment strategy for TB and informing the public about the availability of free medicines and the fact that TB is curable.

WHO assisted the National Health Management Information Unit of the Ministry of Health in developing a National Integrated Report 2008

The WHO-assisted report is based on the analysis of multiple health-related data sources such as the National HMIS hubs at the district level and monthly reports of the Lady Health Workers (LHWs) Management Information System (MIS).

Unique in nature, as the report offers a comparison of facility-based National HMIS and community based LHWs data. It also provides significant data on causes of deaths and human resource in the domain of health. The report carries vital information on major health and demographic indicators including disease patterns, preventive services and the status of physical resources in 116 districts of Pakistan. Information on critical mortality and morbidity indicators, derived from other sources has also been incorporated into the report.



The report has been compiled from the 300,000 facility-based monthly records generated by more than 10,000 health facilities. Community information regarding family planning, maternal and child health, immunization and treatment of minor ailments has been collected with the help of the over 90,000 LHWs deployed across the country. The data covers the period between 2005-08.

Celebrating World No Tobacco Day 2009

The World Health organization in collaboration with Ministry of Health celebrated World No Tobacco Day by organizing a seminar on May 31. On this day, the government of Pakistan added a golden chapter in the history of its tobacco control efforts by announcing immediate rollback of the Statutory Regulatory Order (SRO) on Designated Smoking Areas; making the printing of pictorial health warnings on cigarette packs and outers mandatory from January 1, 2010; prohibiting tobacco



companies from offering free giveaways, cash rebates or discounts as a marketing incentive; and making Pakistan Railways smoke-free from July 1, 2009. Mr. Mir Aijaz Jakhri, Minister of Health, made these announcements at the seminar. He also announced that heavy penalties would be awarded to tobacco companies that offer marketing incentives to promote sales. He informed that Pakistan International Airlines and Pakistan Railways will become smoke-free.

Speaking on the occasion, the acting WHO Representative Dr. Ahmed Shadoul read out the message of the Regional Director EMRO Dr. Hussein A Gezairy. The RD, in his message, warned the governments that the tobacco industry will not stop its attempts to manipulate the regulations (for application of pictorial health warnings) for its own benefit, and that they should, therefore, anticipate its steps and

act accordingly. The DG Implementation of the Framework Convention on Tobacco Control (FCTC) also recommended simplification of procedures governing award of penalties for violation of the anti-smoking ordinance, and the formulation of a multi-stakeholder response to the tobacco epidemic.

Advocacy Seminar and poster competition

The National Alliance for Tobacco Control, in collaboration with WHO and Aga Khan University Hospital organized an advocacy seminar and poster competition in Karachi on May 29 to garner support for the inclusion of pictorial health warnings on cigarette packs and outers, and advocate for withdrawal of the Statutory Regulatory Order (SRO) on designated smoking areas.



Tobacco-free trains initiative launched



The tobacco-free trains initiative has been launched by the Tobacco Control Cell, MOH, in collaboration with WHO and the Ministry of Railways on 29 May 2009. In this respect as part of ongoing World No Tobacco Day activities, a formal ceremony was organized at the Rawalpindi Railway Station. Divisional Superintendent Jalaluddin Khan was the chief guest on the occasion, and other participants included Railway staff and representative from Railway police.

While appreciating the efforts of Ministry of Health, Divisional Superintendent (DS) Railways declared all of the 104 stations that fall under his jurisdiction as tobacco-free. He said the Ordinance will be implemented in letter and spirit and no one would be allowed to smoke inside the trains. Stern action will be taken against the violators. He further announced that internal orders to this effect have been already issued.

WHO donates equipment, vehicles for flood-affected areas

Keeping in view the monsoon contingency planning for 2008, WHO donated DEWS related equipment, medicines and supplies to provincial health departments and districts health authorities of the 12 flood affected districts of Sindh and Balochistan. In this respect handing-over taking over ceremonies were organized in Karachi and Quetta on 28th and 29th May, 2008 respectively.

The donation consisted of 14 (4x4) vehicles (3 for Sindh and 11 for Balochistan), medicines, supplies and office equipment (laptops, computers, printers, scanners, fax machines, UPS etc.).

WHO has also built over 8 pre-engineered insulated and air conditioned warehouses in DHQ Hospitals of eight flood affected districts of Balochistan which include district Bolan, Chagai, Jhal Magsi, Kech, Kharan, Khuzdar, Lasbella and Washuk. The donation is funded by AusAid, CIDA, DFID and UN Central Emergency Response Fund (CERF).

Meanwhile, Chief Minister Balochistan Nawab Mohammad Aslam Khan Raisani was the chief guest at the ceremony held in CM house Quetta on 29th May. Provincial Minister for Health Ainullah Shams, MPA from Jhal Magsi Ms. Shama Parveen Magsi, Minister for Water and Sanitation Mir Habibur Rehman,, Minister for Livestock Mir Qamber Gichki, Minister for Fisheries Mir Hamal Qalmati, Minister for PDMA Babu Abdur Rahim Mangal and WHO Representative Dr. Khalif Bile Mohamud.



Dr. Bile in his remarks lauded the health sector, which he said comes into action, in a disastrous situation, before every one else and leaves the ground at the end. Highlighting the importance of DEWS he said it enables the authorities make forecast about an impending outbreak and take timely action to prevent outbreaks.

4th Cross-border Malaria Coordination meeting held in Islamabad

Experts strongly recommend universal access to diagnosis, treatment and preventive service for populations living along border areas of Pakistan, Iran and Afghanistan. Malaria control experts strongly recommended to provide universal access to diagnosis, treatment and preventive service to the marginalized populations living on the border areas of Pakistan, Iran and Afghanistan with strong political commitment and strengthened coordination among the three countries.



This recommendation came loud and clear at the conclusion of a three-day 4th Cross border Malaria Coordination meeting held in Islamabad during 29 September to 1st of October. The meeting was attended by the delegates from Iran, Afghanistan and Pakistan. Federal Minister for Health Mir Aijaz Hussain Jkhrani chaired the opening session. Deputy Minister for health Dr. Imami Razavi headed the seven member Iranian delegation. WHO Representative Dr. Khalif Bile Mohamud and the representatives of the development partners including USAID were also present on the occasion.

Launching of National Health Guidelines: Training workshop that was held to train the Health Care Providers as Master Trainers in Epidemiology, surveillance and clinical management of Influenza A (H1N1) cases

“Frequent hand washing and observing coughing etiquettes is the key to prevent catching Influenza A (H1N1),” this was informed by the resource persons of the training workshop that was held to train the Health Care Providers as Master Trainers in Epidemiology, surveillance and clinical management of Influenza A (H1N1) cases. 'National guidelines of Influenza A/H1N1 Pandemic for Health Care Providers,' jointly developed by MoH, WHO and NIH, were also launched on the occasion. This training workshop was jointly organized by the Ministry of Health and World Health Organization on December 23, 2009 at National Institute of Health, Islamabad. The workshop was part of the series of the

workshops being organized by MoH and WHO for training the health care providers as master trainers and further impart training to the to the health staff in their respective areas.

These guidelines will help the health workers to establish protocols in every district the recommended clinical management of suspected cases, assist hospital staff in infection control, guide on how to use, removal and disposal of Personal Protective Equipment (PPE) safely and to train the rapid health response team in collecting samples from the suspected patients and to store and safely transport them to the national lab. This technical document has been shared with the director general health for its further dissemination in their respective areas.



The meeting was also attended by the doctors of leading hospitals of the twin cities and various districts who also shared the status of preparedness and response in their respective hospitals. It was shared that the majority of hospitals lacked the basis facilities for keeping and treating the H1N1 affected patients. Also these hospitals did not have isolated areas for housing these patients. The participants urged the concerned authorities to look into the matter and provide and facilitate the hospitals for having proper arrangement for treating H1N1 patients.

Second meeting of Non-Communicable Diseases at WHO



The Second meeting of the experts on the control of Non-Communicable Diseases (NCDs) was held here in Islamabad on November 24. The first meeting which aimed at developing the Commission on NCDs was held in May this year. The meeting was jointly organized by the Ministry of Health and World Health Organization (WHO).

The purpose of the meeting was to review the international and national experiences with various NCD models, integration of strategies for development of a National Strategy and recommendations for implementation of strategies at the three tiers of health care i.e., primary, secondary and tertiary level of health care facilities. The overarching objective of the meeting was to brainstorm on various measures to furnish a legislative framework for creation of a statutory National Commission for Non-Communicable Diseases.

Section – V: Annexes

Annex I: Financial Allocation and Implementation Status Biennium 2008-09

PAKISTAN			
Country Summary 2008/2009	Totals	Programmes	WR Office
No. of Workplans	45	44	1
Total Planned RB	5,111,000	4,379,000	732,000
Total Planned OS	99,304,730	98,924,048	380,682
Total Working Budget RB	5,291,215	4,559,215	732,000
Total Working Budget OS	94,769,254	94,114,572	654,682
Balance RB	29	-482,150	482,179
Balance OS	7,815,699	8,160,731	-345,032
Implementation Rate RB	100.0 %	110.6 %	34.1 %
Implementation Rate OS	91.8 %	91.3 %	152.7 %
No. of Staff	304		
No. of Procurements	5		
No. of Fellowships	21		
No. of Pending Requests in RO	123		

Annex II: List of WHO Strategic Objectives

Strategic Objectives	Title
1	To reduce the health, social and economic burden of communicable diseases
2	To combat HIV/AIDS, tuberculosis and malaria
3	To prevent and reduce disease, disability and premature death from chronic noncommunicable conditions, mental disorders, violence and injuries
4	To reduce morbidity and mortality and improve health during key stages of life, including pregnancy, childbirth, the neonatal period, childhood and adolescence, and improve sexual and reproductive health and promote active and healthy ageing for all individuals
5	To reduce the health consequences of emergencies, disasters, crises and conflicts, and minimize their social and economic impact
6	To promote health and development, and prevent or reduce risk factors for health conditions associated with use of tobacco, alcohol, drugs and other psychoactive substances, unhealthy diets, physical inactivity and unsafe sex
7	To address the underlying social and economic determinants of health through policies and programmes that enhance health equity and integrate pro-poor, gender-responsive, and human rights-based approaches
8	To promote a healthier environment, intensify primary prevention and influence public policies in all sectors so as to address the root causes of environmental threats to health
9	To improve nutrition, food safety and food security, throughout the life-course, and in support of public health and sustainable development
10	To improve health services through better governance, financing, staffing and management informed by reliable and accessible evidence and research
11	To ensure improved access, quality and use of medical products and technologies
12	To provide leadership, strengthen governance and foster partnership and collaboration with countries, the United Nations system and other stakeholders in order to fulfill the mandate of WHO in advancing the global health agenda as set out in the Eleventh General Programme of Work
13	To develop and sustain WHO as a flexible, learning organization, enabling it to carry out its mandate more efficiently and effectively.

Annex III: Agreements for Performance of Work (APW)

An APW is a contractual agreement between WHO and a contractor to perform work with specified outputs and is time bound. The APW mechanism serves several important purposes namely the building of national capacity of the public and private health sectors and produces a verifiable output aimed at augmenting the outcome of an ongoing program. A total of 133 APWs were issued during the 2008 – 09 biennium as summarized by the programme area in the following table:

S NO	Name of the Programme	2008-09
1	Essential Medicines and National Pharmaceutical Policy (Including Vaccine Quality)	2
2	Integrated Primary Health care	3
3	Mental Health	1
4	Sustainable Development Approaches (Basic Development Needs) and Women in Health Development	4
5	Emergency Preparedness & response	62
6	Blood Safety	1
7	Child, adolescent health & Development	1
8	Reproductive Health, Making Pregnancy Safer, Family Planning	3
9	Expanded Programme Immunization	6
10	Public Health Laboratory Support	1
11	Polio	27
12	STOP/TB	1
13	HIV, AIDS, STDs	6
14	Human Resource Development (HSA, COME and CPSP)	1
15	Nursing and Paramedical Resources	4
16	Health Research	1
17	Health Promotion including TFI, School Health and Oral Health	2
18	Food Safety	1
19	Environmental Health including Health Care Waste Management, Water Supply & Sanitation and Chemical Safety	1
20	Health of Elderly	2
21	Non-Communicable Diseases (Cardiovascular, Heartfile, Blindness, Cancer Control, CBR & RTA component)	3
	Total for the biennium	133

Annex IV Confirmed polio cases by month and by year (2000 – 2009*)

Month/Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January	10	9	4	6	4	4	0	5	2	7
February	7	3	4	7	3	0	2	1	1	2
March	1	4	4	7	4	2	0	1	0	0
April	11	4	9	14	1	1	1	0	6	6
May	13	3	3	7	4	3	5	2	5	4
June	22	4	6	7	3	2	4	2	3	3
July	16	7	2	8	4	3	4	0	18	14
August	23	18	11	11	10	2	3	2	18	19
September	27	24	20	14	2	3	6	4	30	11
October	30	20	14	7	8	2	8	1	21	12
November	24	16	7	10	2	3	6	6	7	7
December	15	7	6	5	8	3	1	8	6	4
Total	199	119	90	103	53	28	40	32	117	89

*Data as of 23rd January 2010

Annex V: Complete List of Millennium Development Goals

Goals and targets (from the Millennium Declaration)	Indicators for monitoring progress
Goal 1: Eradicate extreme poverty and hunger	
Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than less than one dollar a day	1a. Proportion of population below \$1 (PPP) per day ^d
	1b. Poverty headcount ratio (% of population below the national poverty line)
	2. Poverty gap ratio [incidence x depth of poverty]
Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	3. Share of poorest quintile in national consumption
	4. Prevalence of underweight children under-five years of age
	5. Proportion of population below minimum level of dietary energy consumption
Goal 2: Achieve universal primary education	
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	6. Net enrolment ratio in primary education
	7a. Proportion of pupils starting grade 1 who reach grade 5
	7b. Primary completion rate
	8. Literacy rate of 15–24 year-olds
Goal 3: Promote gender equality and empower women	
Target 4: Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015	9. Ratios of girls to boys in primary, secondary and tertiary education
	10. Ratio of literate women to men 15–24 years old
	11. Share of women in wage employment in the non-agricultural sector
	12. Proportion of seats held by women in national parliament
Goal 4: Reduce child mortality	
Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	13. Under-five mortality rate
	14. Infant mortality rate
	15. Proportion of 1 year-old children immunized against measles
Goal 5: Improve maternal health	
Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	16. Maternal mortality ratio
	17. Proportion of births attended by skilled health personnel
Goal 6: Combat HIV/AIDS, malaria and other diseases	
Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	18. HIV prevalence among 15–24 year old pregnant women
	19. Condom use rate of the contraceptive prevalence rate ^e
	19a. Condom use at last high-risk sex
	19b. Percentage of population aged 15-24 with comprehensive correct knowledge of HIV/AIDS ^f
	19c. Contraceptive prevalence rate
	20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14
Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	21. Prevalence and death rates associated with malaria
	22. Proportion of population in malaria risk areas using effective malaria prevention and treatment measures ^g
	23. Prevalence and death rates associated with tuberculosis
	24. Proportion of tuberculosis cases detected and cured under directly observed treatment short course (DOTS)

^d For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

^e Amongst contraceptive methods, only condoms are effective in preventing HIV transmission. The contraceptive prevalence rate is also useful in tracking progress in other health, gender and poverty goals. Because the condom use rate is only measured amongst women in union, it is supplemented by an indicator on condom use in high-risk situations (indicator 19a) and an indicator on HIV/AIDS knowledge (indicator 19b).

^f This indicator is defined as the percentage of population aged 15-24 who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission, and who know that a healthy-looking person can transmit HIV. However, since there are currently not a sufficient number of surveys to be able to calculate the indicator as defined above, UNICEF, in collaboration with UNAIDS and WHO, produced two proxy indicators that represent two components of the actual indicator. They are the following: a) Percentage of women and men 15-24 who know that a person can protect herself from HIV infection by "consistent use of condom". b) Percentage of women and men 15-24 who know a healthy-looking person can transmit HIV. Data for this year's report are only available on women.

^g Prevention to be measured by the percentage of children under 5 sleeping under insecticide-treated bed nets; treatment to be measured by percentage of children under 5 who are appropriately treated

Develop a global partnership for development

Goal 7: Ensure environmental sustainability

Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Target 11 By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

Target 12: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system

Includes a commitment to good governance, development, and poverty reduction – both nationally and internationally

Target 13: Address the special needs of the least developed countries

Includes: tariff and quota free access for least developed countries' exports; enhanced programme of debt relief for HIPC and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction

Target 14: Address the special needs of landlocked countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)

Target 15: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term

25. Proportion of land area covered by forest
26. Ratio of area protected to maintain biological diversity to surface area
27. Energy use (kg oil equivalent) per \$1 GDP (PPP)
28. Carbon dioxide emissions (per capita) and consumption of ozone-depleting CFCs (ODP tons)
29. Proportion of population using solid fuels

30. Proportion of population with sustainable access to an improved water source, urban and rural
31. Proportion of urban and rural population with access to improved sanitation
32. Proportion of households with access to secure tenure

Some of the indicators listed below are monitored separately for the least developed countries (LDCs), Africa, landlocked countries and small island developing States.

Official development assistance

33. Net ODA, total and to LDCs, as percentage of OECD/DAC donors' gross national income

34. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic

social services (basic education, primary health care, nutrition, safe water and sanitation)

35. Proportion of bilateral ODA of OECD/DAC donors that is untied

36. ODA received in landlocked countries as proportion of their GNIs

37. ODA received in small island developing States as proportion of their GNIs

Market access

38. Proportion of total developed country imports (by value and excluding arms) from

developing countries and LDCs, admitted free of duties

39. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries

40. Agricultural support estimate for OECD countries as percentage of their GDP

41. Proportion of ODA provided to help build trade capacity

Debt sustainability

42. Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)

43. Debt relief committed under HIPC initiative, US\$

44. Debt service as a percentage of exports of goods and services

Annex VI: List of MoUs between WHO and Partners signed by WHO Pakistan

Str. #	Year	MoU Title	Signatories	Signed on	Nature of Support	Amount	Duration	Status	WRO Focal Person
1.	2008	Emergency health and nutrition interventions in most food insecure districts in Pakistan	WHO and CERF	02-09-2008	Emergency health and nutrition interventions	USD 274,990		Completed	Chief of Operations (EHA)
2.	2008	Emergency health interventions for IDPs from Bajaur and flood affected populations in NWFP	WHO and CERF	11-09-2008	Emergency health interventions	USD 1,199,043		Completed	Chief of Operations (EHA)
3.	2008	Emergency health interventions and outbreak response and control in flood affected areas	WHO and CERF	03-04-2008	Emergency health interventions	USD 1,171,191		Completed	Chief of Operations (EHA)
4.	2008	Emergency health interventions for earthquake affected districts of Balochistan	WHO and CERF	14-11-2008	Emergency health interventions	USD 299,986		Completed	Chief of Operations (EHA)
5.	2008	WASH interventions for internally displaced and flood affected populations in the NWFP and Federally Administered Tribal Area (FATA) of Pakistan	WHO and CERF	05-09-2008	WASH	USD 75,114		Completed	Chief of Operations (EHA)
6.	2008	Swedish support to Pakistan Humanitarian Response Plan 2008 (health services to IDPs, returnees from Bajaur Agency and flood affected people of NWFP and Punjab)	WHO and Swedish	16-10-2008	Provide health services	SEK 2,000,000	01-09-2008 to 28-02-2009	Completed	Chief of Operations (EHA)
7.	2008	Humanitarian Response Plan in Pakistan 2008	WHO and USAID	03-10-2008 11-03-2008	PHRP	USD 290,000 USD 600,000 USD 890,000	03-10-2008 to 31-12-2009	Completed	Chief of Operations (EHA)

Sr. #	Year	MoU Title	Signatories	Signed on	Nature of Support	Amount	Duration	Status	WRO Focal Person
1.	2008	PHRP	WHO and DFID	15-10-2008	PHRP	USD 283,739		Completed	Chief of Operations (EHA)
2.	2009	PHRP	WHO and AusAID	20-01-2009	PHRP	USD 551,148		Completed	Chief of Operations (EHA)
3.	2009	PHRP	WHO and DFID	20-01-2009	PHRP	USD 69,263		Completed	Chief of Operations (EHA)
4.	2009	Emergency health interventions for IDPs in NWFP	WHO and CERF	30-04-2009	Emergency health interventions	USD 460,399		Completed	Chief of Operations (EHA)
5.	2009	WASH interventions for internally displaced populations in the NWFP and FATA as set out in the Humanitarian Response Plan Prioritization Statement	WHO and CERF	30-04-2009	WASH	USD 54,356		Completed	Chief of Operations (EHA)
6.	2009	PHRP	WHO and DFID	20-01-2009	Balochistan earthquake	USD 69,263		Completed	Chief of Operations (EHA)
7.	2009	PHRP	WHO and DFID	17-04-2009	PHRP	USD 736,190		Completed	Chief of Operations (EHA)
8.	2009	Emergency Health Response for the conflict affected populations in the NWFP of Pakistan	WHO and ECHO	31-08-2009	Emergency	EUR 2,000,000		Completed	Chief of Operations (EHA)
9.	2009	Humanitarian support to IDPs by provision of WASH at Healthcare facilities and water quality surveillance in NWFP	WHO and UNICEF	27-07-2009	WASH	USD 300,000	27-07-2009 to 31-12-2009	Completed	Chief of Operations (EHA)
10.	2009	Health response to the internally displaced persons (IDPs) crisis in the NWFP Pakistan	WHO and Italy		Emergency	EUR 1,000,000	12months	Completed	Chief of Operations (EHA)

Sr. #	Year	MoU Title	Signatories	Signed on	Nature of Support	Amount	Duration	Status	WRO Focal Person
1.	2009	Disease and nutritional surveillance, early warning system and outbreak response	WHO and OFDA	10-06-2009 07-07-2009	Disease and nutritional surveillance	USD 2,000,000	10-06-2009 to 31-01-2010	Ongoing	Chief of Operations (EHA)
2.	2009	Norwegian support to health cluster for IDPs	WHO and Norway	24-11-2009	IDPs	USD 4,044,174 (including PSC 264,572)	17-07-2009 to 17-07-2010	Ongoing	Chief of Operations (EHA)
3.	2009	Support to humanitarian water, sanitation and hygiene (WASH) response in IDP camps/host communities and conflict affected areas in NWFP through enhancing water quality surveillance & treatment and hygiene promotion	WHO and UNICEF	26-01-2010	WASH	USD 400,000	01-02-2010 to 30-09-2010	Ongoing	Chief of Operations (EHA)

Annex VII: WHO Collaborating Centers in Pakistan

City	Name of Center	Address of Institution with Name of Director	Date Designated
Rawalpindi	The prevention of Blindness	Lt. Gen. Jahan Dad Khan, President WHO Collaborating Centre for Prevention of Blindness Al-Shifa Trust Eye Hospital Jhelum Road, Rawalpindi	1993
Rawalpindi	Prevention & control of NCD	Armed Forces Institutes of Cardiology, Mall Road, Rawalpindi Cantt	2007

Karachi	Treatment, Education and Research in Diabetes and Diabetic Pregnancies	Dr. A. Samad Shera, Head WHO Collaborating Centre for Diabetes Research, Education, and Primary Health Care Diabetic Association of Pakistan, -E/3, Nazimabad Karachi- 74600	2000
Islamabad	Research and training in viral diagnostics	Dr Birjees Mazhar Kazi, ED NIH WHO Collaborating Centre for Research and Training in Viral Diagnostics, National Institute of Health Ministry of Health, Islamabad	1982
Rawalpindi	Mental Health Research and training	Prof. Fareed Minhas, Director WHO Collaborating Centre for Mental Health Research & Training Department of Psychological Medicine Institute of Psychiatry, Rawalpindi Medical College Rawalpindi General Hospital, Rawalpindi	1987
Karachi	Cardiovascular Diseases	Professor Azhar Masood A. Faruqi, Executive Director WHO Collaborating Centre for Cardiovascular Diseases National Institute of Cardiovascular Diseases Rafiqi (H.J.) Shaheed Road Karachi - 75510	1988
Lahore	Environmental health Engineering	Prof. Javed A. Aziz, Director WHO Collaborating Centre for Environmental Health Engineering Institute of Public Health Engineering & Research (IPHER) University of Engineering & Technology, Lahore - 54890	1997
Karachi	Pesticide analysis	Dr M. Iqbal Choudhary, Director (Acting) WHO Collaborating Centre for Pesticide Analysis Hussein Ebrahim Jamal (HEJ) Research Institute of Chemistry, University of	1988
Karachi	Research in Human Reproduction	Dr Badruddin Abbasi, Director WHO Collaborating Centre for Fertility Care St. 13 & 14, Block 1, Scheme 5 Kerkashan-Clifton, Karachi	1976
Karachi	Educational Development of Health Personnel	Professor Zafar Ullah Chahdhy, President CPSP, WHO Collaborating Centre for Research and Training in Educational Development of Health Personnel College of Physicians & Surgeons, 7th Central Street Defence Housing Authority Karachi – 75500	1996

Annex VIII: Conferences and Fellowships

International Conferences Attended by Health Professionals from Pakistan during 2008 – 2009

S.No.	Subject Areas	Meetings and Conferences (No. of Participants from Pakistan)	Fellowships (No. of Participants from Pakistan)
Health Policy & Strategic Planning			
1	Health system development	23	1
2	Emergency Preparedness	13	2
3	Health personnel training & COME		
4	National HMIS		
	Sub-total	36	3
Health System & Community Development			
5	Integrated PHC	11	
6	Sustainable development Approaches (BDN)		
7	National Drug Policy	9	3
8	Traditional Medicine		
9	Health Laboratory support	11	
	Sub-total	31	3
Health Promotion & Protection			
10	Promotion of Healthy Lifestyles/Tobacco control	29	1
11	Mental Health including substance Abuse	5	
12	Nutrition and Food Safety	3	
13	Non-Communicable Diseases	4	
14	CAH (IMCJ), Control of Diarrhea & ARI	14	
15	Environmental Health Policy	3	
16	Chemical Safety	1	
	Sub-total	59	1
Prevention & Control of Communicable Diseases			
17	EPI	29	2
18	Stop Tuberculosis	16	
19	Roll Back Malaria	9	8
20	AIDS/STD's & Blood Safety	12	
21	Disease Surveillance & Control Program	8	
22	Vaccine Development	6	6
	Sub-total	80	16
	Total	206	23

Annex IX: Vital Social Indicators of Pakistan

Indicator	Year	Value	Reference
I- Demographic Indicators:			
Mid-year population estimate ('000)	2008	160.9 m	ESP
Population growth rate	2007-08	1.8	ESP
Total fertility rate	2005-06	3.8	FBS
Crude birth rate	2005-06	26.1	FBS
Crude death rate	2005-06	7.1	FBS
II- Socio-economic Indicators:			
Adult literacy rate (percent): Both sexes	2006-07	52	PSLM
Males	2006-07	65	PSLM
Females	2006-07	38	PSLM
Per capita GNI (US\$)	2006	770	ESP
Population 15 years and over who are regular smokers: Both sexes	2007	16	WHO
Males	2007	33	WHO
Females	2007	4.7 7	WHO
III- Human and Material Resource Indicators:			
Rate per 10 ,000 population of Physicians	2008	0.8	PMDC
Dentists	2008-09	1.0	ESP
Pharmacists	1996	3.40	WHO
Nurses & Midwives	2008 -09	6.0	ESP
Hospital beds	2008 -09	6.0	ESP
PHC units and centers	2008 -09	0.7	ESP
National health expenditure as percent of GNP	2006	3.5	ESP
MoH expenditure as percent of GNP	2006	0.7	ESP
IV - PHC Coverage (percent):			
Population with sustainable access to improved water sources.	2007 -08	65	ESP
Population with adequate excreta disposal facilities	2004	54	WHO

Population with local health care (= LHW coverage)	2006	80	WHO
Women attended by trained personnel during pregnancy	2007	27	WHO
Deliveries attended by trained personnel	2007	39	PDHS
Women of childbearing age using family planning	2007	24,8	WHO
Infants fully immunized against: Tuberculosis (BCG)	2007	80.3	WHO
Polio (OPV3)	2008	76	EPI
DPT + Hepatitis	2008	76	EPI
Measles	2008	78	WHO
Hepatitis (HBV3)	2007	57.3	WHO
Pregnant women immunized with TT2	2005-06	53	PDHS
V- Health Status Indicators:			
Newborns with birth weight 2500g or more (percent)	2005	81	WHO
Children with acceptable weight for age (percent)	2006	76	WHO
Infant mortality rate (per 1000 live births)	2007	78	PDHS
Maternal mortality rate (per 100,000 live births)	2008	320	PC
Life expectancy at birth (years): Both sexes	2005-06	65	ESP
Male	2005-06	64	ESP
Female	2005-06	66	ESP
Number of reported new cases of Polio	2008	117	WHO
Malaria	2008	12,826	DOMC
Total Tuberculosis Cases detected	2008	248,115	NTP Pak
New Pulmonary TB smear +ve CDR	2008	74%	NTP Pak
Measles	2008	1,115	EPI
Prevalence of Leprosy	2008	to be added	WHO

Annex X: Registered Medical and Paramedical Personnel

Total number of doctors / dental surgeons (GP's with basic degree only) registered up to 31st December, 2009

Province	Male	Female	Total	Male	Female	Total	Male	Female	Total
Punjab/Federal Area	26124	19662	45786	1740	1901	3641	511	54	565
Sindh	27276	22365	49641	1280	2053	2053	284	22	306
N.W.F.P.	8763	3904	12667	775	648	1423	52	2	54
Balochistan	2149	1298	3447	147	90	237	44	11	55
A.J.K.	1290	744	2034	127	85	212	3	1	4
Foreign Nationals	2237	687	2924	293	96	389	98	8	106
Total	67839	48660	116499	4362	4873	9235	992	98	1090

Annex XI: Total number of doctors/dental surgeons registered up to 31st December, 2009 as specialists

Province	Male	Female	Total	Male	Female	Total
Punjab/Federal Area	9024	2652	11676	196	64	260
Sindh	5014	1862	6876	131	45	176
N.W.F.P.	2482	542	3024	85	14	99
Balochistan	680	142	822	24	1	25
A.J.K.	390	86	476	18	2	20
Foreign Nationals	66	14	80	3	0	3
Total	17656	5298	22924	457	126	583

Source: P akistan Medical & Dental Council .

Annex XII: Useful Websites

1. <http://www.geocities.com/saphf/index.htm>
2. Pakistan Medical Association <http://www.pma.org.pk/>
3. Pakistan Health Ministry <http://www.pakistan.gov.pk/health-ministry/index.jsp>
4. College of Physicians and Surgeons, Pakistan <http://www.cpsp.edu.pk/>
5. Pakistan Medical Research Council <http://www.pmrc.org.pk/>
6. Pakistan Medical and Dental Association <http://www.pmdc.org.pk/>
7. Government of Pakistan Health Division <http://www.pakistan.gov.pk/health-division/index.jsp>
8. Institute of Public Health <http://www.brain.net.pk/~iphpk/>
9. Aga Khan Health Services <http://www.akdn.org/agency/akhs.html>
10. Pakistan Development Gateway <http://www.pdg.org.pk/director.htm>
11. Asian Development Bank <http://www.adb.org/Pakistan/default.asp>

Nongovernmental Organizations and Not for Profit Ventures

1. SACHET <http://sachet.org.pk/home/>
2. Heartfile <http://www.heartfile.org/>
3. Pakistan Public Health Foundation <http://www.pphf.org/>
4. Primary Care Pakistan <http://www.primarycarepk.org/>
5. The Network for Consumer Protection <http://www.thenetwork.org.pk/>
6. Association of Pakistani Physicians of North America <http://www.appna.org/>

World Health Organization

1. Main site <http://www.who.int>
2. Framework Convention on Tobacco Control http://www.who.int/tobacco/fctc/signing_ceremony/countrylist/en/
3. Macroeconomics and Health <http://www.who.int/macrohealth/en/>
4. Roll Back Malaria http://rbm.who.int/cgi-bin/rbm/dhome_rbm.jsp?ts=3251957014&service=rbm&com=gen&lang=en
5. WHO Statistical System <http://www3.who.int/whosis/menu.cfm>
6. WHO EMRO website <http://www.emro.who.int/index.asp>

Other useful sites:

1. United Nations in Pakistan <http://www.un.org.pk/>
2. Centers for Disease Control <http://www.cdc.gov>
3. World Bank www.worldbank.org
4. Medline (Pub Med, National Library of Medicine) <http://www.ncbi.nlm.nih.gov/pubmed/>
5. Popline <http://db.ihuccp.org/popinform/basic.html>
6. WHO Country Office <http://www.whopak.org/}}>

