

SAFE WATER SUPPLY AND INFANT MORTALITY RATE

Rural areas of Pakistan are deprived of provision of safe and ample supply of drinking water, it is limited about 13.9 % and sanitation facilities to 9.79 %. The Government is making tremendous contribution like in budget of (1986-90) Rs. 11754501 for urban and Rs. 5710 million for rural areas.

Safe drinking water supply and sanitation is more important for vulnerable sections of society like children because their survival is linked with water born diseases. Over the globe the drinking water and sanitation is rapidly drawing the attention of International Agencies. Much has been incurred awareness and some of rural population like in Punjab has an access to safe water supplies. Human resources have to be created in terms of manpower, involvement of community workers, International Agencies like WHO for contribution.

Pakistan has got higher infant mortality, heavy toll by infectious diseases and death takes place. Thus children in Pakistan are a high risk group. Because for children the risk of dying is closely related with inadequate food, poverty and elementary unhygiene condition, unsafe water. Mortality rate 1 year age for children in Pakistan in 1985 was 115/1000 children while in Netherland 10/1000 and in other developed world, infant mortality is only 30/1000, Sri Lanka 48/1000 in Thailand, 51/1000 in the Philippines 59/1000, in Veitnam and Syria 50/1000, in China 77/1000, in Iraq and Tunisia 85/1000.

Infantile Diarrhorea takes major toll of life, accounts for almost 1/3rd of death in the country. Most of death are in weaning period after the age of 3 years (See Chart No. 1).

QUALITY OF LIFE INDICATIONS1985

Country	Per Capita Income (\$ per Annum)	Life Expectancy at Birth	Infant Mortality	Child Death Rate	Literacy % Rate
Pakistan	380	51	115	16	24
Sri Lanka	380	70	36	2	86
Thailand	800	64	33	3	86
China	210	69	34	1	69
India	270	56	89	11	36

Malaysia	2000	68	28	2	60
Philippines	580	63	448	4	83
Indonesia	530	55	96	12	62
Bangladesh	150	51	123	28	26
Bhutan	160	44	133	20	10

SOURCE: WOLD DEVELOPMENT REPORT, 1987

DEFINITION: The infant mortality rate is Nos. of the infants who die before reaching one year of age, per thousand live birth in a given year. The child death rate number of death of children aged 1-4/1000 children in the same age group in a year. Pakistan is facing this problem if safe water is supplied Infant Mortality Rate can be reduced and life expecting rate will be more as Chart No. 2.

INFANT MORTALITY RATE (IMR), SAFE WATER SUPPLY COVERAGE (SWS) & LIFE EXPECTANCY (LE) IN EMR

IMR Range	Member States	POP.1000	IMR 1000 LB	LE Years	SWS %	
50	1 Bahrain	430	21	71	100	
	2 Cyprus	684	11	76	100	
	3 Egypt	51900	45	61	95	
	4 Jordan	2990	35	69	97	
	5 Kuwait	1960	17	73	100	
	6 Lebanon	2762	40	67	100	
	7 Libya	4100	31	61	90	
	8 Oman	1330	45	58	58	
	9 Qatar	380	14	73	100	
	10 Syria	10969	49	65	80	
	11 Tunisia	7817	49	66	78	
	12 UAE	1453	13	69	100	
		Total/Ave's	86775	43	63	91
50-99	1 Iran	53450	51	67	75	
	2 Iraq	16659	52	66	90	
	3 Morocco	23870	74	62	45	
	4 Pakistan	105410	80	61	44	
	5 Saudi Arab	10452	69	66	93	
		Total /Ave's	209841	69	63	58
		1 Afghanistan	15510	182	41	20
	2 Djibouti	456	122	50	43	

	3 Somalia	6895	152	47	31
	4 Sudan	23128	108	50	35
	5 Yemen	12340	155	44	43
	Total/Ave's	58329	145	46	32
	Regional Total /Ave's	354945	75	60	62

SOURCE: EVAL2, WHO/EMRO, JUNE 1989

In Bahrain with safe water supply is 100% mortality rate is very less, whereas, Pakistan claims SWS to 44%, IMR 80/10000. Water is must for life. Human body contains nearly 70% water. It is also present in various plants from 50-80% water is not extensively need for human and animal consumption. In cooking, drinking, industries, irrigation, water stands essential. More than half of the earth is covered with water. Water is combination of minerals and salts is also very important for health

Water due to its solvent state occurs in nature in an impure state. Water in wells, rivers and seas contains dissolved chlorides, sulphate, carbonates, bicarbonates of sodium, calcium and magnesium. And these impurities need to be removed for washing purposes and drinking purpose extra care is needed, that drinking water should be free of bacteria and should contain certain inorganic salts. In certain areas of Pakistan water contain gold and silver. In some places it lacks iodine and fluorides, which cause goiter and dental caries.

“Water is in three states, Solid, or snow, liquid water vapours streams and clouds”.

“See Allah sends water through clouds on earth and makes rivers and sea”. 39:21

“God sends water through clouds and various types of fruits and hills contain many layers of inorganic salts and snow”.

Abundance of water or lack of water, has striking effect on health. During floods, life stands disappointed and in areas of Pakistan lack of water is a problem. The primary source of water is vapour, evaporated from sea forming clouds as Quran defines and this

water cycle changes the climate. The whole cycle and projects of water are well defined in Quran. The Holy Prophet Muhammad (PBUH) said “Water is a food”.

PURE WATER AND DISPOSAL OF EXRETA

Pure water and arrangements for disposal of human excreta and other excreta of industry is very important for health. According to report of Public Health Eng. Deptt. Central Lab. Research, made a survey of 9 districts of 114 villages and submitted a report (1991) to WHO that 99% of hand pumps of these villages and wells are not free of bacteria but are fit chemically because 30 villages of Gujranwala with water sample of 150, all were found with bacteria. Twenty two villages of Sialkot with 110 samples of water, six village of Rawalpindi with 30 samples, Six village of Attock with 29 samples of water, nine villages of Gujrat with 45 samples of water, 5 villages of Chakwal with 23 samples of water, nine villages of Sahiwal with 45 samples of water, nine villages of Okara, 45 samples of water out of 561 samples, 5 samples of Gujrat and one sample of Sahiwal are free of germs.

In 1987, it was estimated that 26.8% population is receiving sage or tape water and this is only limit to 61%, urban population and excreta disposal and sanitation in rural areas is 9.7% only. Government kept budget of Rs.117540 (1986, 90) for health and its upliftment. Rs. 5701 million were kept for rural population. Government does not possess higher resources, through unlimited number of BHU & RHU are opened.

FINANCIAL ALLOCATIONS FOR 1986-87 BY SOCIO-ECONOMIC SECTORS (RS.BILLION)

1	Rural education	5.54
2	Rural Health	1.41
3	Rural Roads	1.98
4	Rural water supply & sanitation	1.25
5	Katchi abadis & rural housing	0.73

6	Rural electrification	5.27
7	Anti Waterlogging & Salinity programme	2.52
8	Adult literacy	0.80
9	Multi purpose rural development schemes	0.27
10	7 Marla scheme	0.50
11	MNA's/Senators programme	1.62
12	Special employment programme	1.30
Total:		23.19

There was no plan for health during 1947-55 in Pakistan. The Ist 5 years plan was 1955 to 1960. In this plan priority was given for prevention so that preventive measures are cheaper, promotive and easier and healthy atmosphere can prevail. Tuberculosis, Malaria Eradication, MCH, certain institute of Hygiene and Preventive measures was established. 2nd Plan was in 1960-65. Under this again about 90 rural health centres were created and infectious diseases hospital was made.

3RD PLAN WAS 1965-70
IODINE DEFICIENCY IN WATER AND DISORDERS

Iodine deficiency disorders are very common in hilly areas of NWFP, Northern areas of Azad Kashmir. About six million population of hilly areas facing serious risks of disease like GOITER, MENTAL DISABILITY, DEAFNESS, PRE MATURE BIRTHS, MISCARIAGE, among expecting mother and higher infant mortality.

Since iodine is deficient in drinking water, therefore, to supplement iodines in food, iodine salt and elder people are supplied with capsule and supply infection ahs started in case of Chitral, Gilgit, Sakardu, Chillas, Dimir, Nowshera, Battagram, Kohistan, Muzaffarabad, Kotli, Bagh, Poonch. The project is sponsored by 22 million dollars.

There are certain areas like in Baluchistan, Mianwali, Mardan in NWFP, Lahore (Baghwanpura), Kasur and Jehlum but possess nose fluorides salt in drinking water. The health of this population is mottled enamel, and some places in the world has got skeletal flourois so far safe water fluoride salt should not be more that 1:1 M. Part of water. In case of deficiency dental cases can occur more.

FLOODS

Flood play havoc with human lives. Human life associated with lives stock, agriculture and in addition 10 multifarious economics loss it creates health hazards. Water spoils all sanitation no hopes of safe water. Due to lack of education population has the tap water which is or 30F and is contaminated infection in children and adults is common.

Children in developing countries may experience as many as ten episodes of acute diarrhoea per year. The vast majority of these episodes can be successfully treated with oral rehydration therapy and continued feeding. Antibiotics should be used only for dysentery or suspected cholera, what is less certain is what to be done, if the diarrhoea does not stop, if diarhoea lasts for more than two weeks the effect upon nutritional status may be especially serious, and the chances of death increase as 20 times. Studies from various developing countries have shown that between 3 and 20 per cent of episodes of acute diarrhoea become persistent, and upto one half of all diarrhoea associated deaths occur during episodes of persistent diarrhoea.

SUGGESTIONS

There is need to assist rural water programmes and environmental sanitation. This assistance should began on a small scale with a few pilot or demonstration projects, to be started. There is a vital link between adequate water supplies for drinking and household use and sanitation, on the one hand, the health and welfare of infants and children will be increasingly clear and healthier. This will reduce levels of infection, lessen the drudgery of mothers, improve the local quality of life and encourage self help community efforts. This will lead to major improvements in children's life. At present water level of hand pump at rural area is 26F to 30F. 2nd depth is 110F which is costly for common man, he cannot afford to have 3rd depth layer is further costly. Hand water pump is at 26F, which is common but that is source of infection and responsible for water born diseases. In recent years, so providing and helping safe water supply systems for rural communities it will help country. Safer water is essential to the health and nutrition of children and for cleanliness in the home. Let us work for it. We should also create awareness

in urban and get the water tested from laboratory of this college whereas the water, which we drink is free of bacteria and fit. Let the Engineer play their role for supply of safe water.