PAST, PRESENT & FUTURE OF COMMUNITY MEDICINE

All that is valuable in human society depends upon the opportunity for development accorded to the individual.

Albert Einstein:

The great words of a genius holds much of grounded even today when we ponder over the rapid strides of our branch community medicine.

It has always been pointed out since antiquity that hygiene had been an important component of the disease causation. Whether it was Sushruta "Sushruta - Samhita" which inherently emphasizes upon ancient surgical procedures but also throws light upon the importance of hygiene in disease causation. Hygiene has also been stressed upon in ancient India and is mentioned in the laws of Manu which were a code of personal hygiene. The archaeological excavations done at Harappa & Mohenjo-daro of the Indus valley era depicts the advanced sense and practices adopted by them in the field of sanitation.

Ayurveda system also throws light upon it through its Tridosha theory of disease wherein the three doshas are vata (wind) pitta (gall) and kapha (mucus). It associates the causation of the disease to the disturbance in equilibrium between the three humors. A similar Greek theory associates the disease with "the theory of four humors". Also in Greek Medicine, there is mention of a Greek leader Aesculapius who bore two daughters namely Hygieia & Panacea. Subsequently, Hygieia was worshipped as the goddess of health & Panacea was worshipped as the goddess of medicine. Thus, there was a significant divide in the list of followers as Hygieia got more attention of the intellectual stuff while the Panacea was a boon for those who were after the monetary gains.

Hippocrates whom we most reverently bow as the "Father of medicine" had also been an excellent epidemiologist since he was always in search of the disease causation & its study. His appetite for epidemiology was so vast that he was constantly associating the disease with factors such as climate, clothing, diet, etc. The book titled "Air, Water and Places" written by him is considered still an apostrophe of epidemiology scriptures.

The middle ages (500-1500 A.D.) saw the debacle of the public health with the fall of the Roman empire. The diseases which had always haunted the mankind like plague, smallpox, leprosy and tuberculosis spread far and wide & even Europe was not spared of its ill-effects. There was pre-dominance of superstition & dogma in the society wherein the association of the disease was related to spirits. Then with some initial efforts put in by Arabs of preserving the ancient medical traditions, a major thrust to it was given to it by the christians as they spread worldwide and established proper hospitals for the upkeep of the patients.

With the revival of medicine in 14th to 18th century there was a major breakthrough in the inventions that proved to be a milestone in medical sciences. During the 19th century there was a lot of sanitary awakening in England which ushered in a phase of public health. During this time itself, John Snow studied the epidemiology of cholera in mid 19th century and established the role of polluted drinking water in its spread in London. By the beginning of 20th century various European countries had started developing their public health foundations.

Preventive medicine has its origin mainly in 18th century when James Lind established the role of fresh fruits in scurvy prevention. Sometime later there was a discovery of smallpox vaccine by Edward Jenner which was a major breakthrough. A very firm basis to preventive medicine was provided with the discovery of causative agent & establishment of the Germ theory of disease. Soon in 19th century there were marked discoveries like Pasteur's anti-rabies treatment, cholera vaccine, disectants, etc. The process of disease transmission was also thoroughly understood during this phase e.g. Ross established the malaria transmission by female anopheles. With the better knowledge of bacteriology various measures of curtailing the disease transmission like quarantine, dissection, water purification were duly adopted.

The concept of preventive medicine lies in prevention of disease and promotion of health in healthy individuals. With the advent of various vaccines there was a definite triumph over the high morbidity these diseases had inflicted on the human race. Vaccines like polio were also discovered in 1950s by the advancements like tissue culture techniques.

The eradication of smallpox was a defining moment of preventive medicine as it had conquered the all time menace. The present day preventive medicine is much more holistic in vision and is working in broader sense than ever before.

There is always an ongoing search for newer and effective vaccines like malaria, syphilis, leprosy which can enhance the capabilities further. AIDS vaccine is also a subject of great research as still it is undergoing trials. Adequate funds for research is now being provided by organizations like Bill & Melinda Gates foundation and also WHO. Besides it, newer strategies like tackling deficiencies like nutritional blindness & Iodine deficiency disorders is now being focused. The present awakening for intake of
vitamins, Minerals & the most recent emphasis on fibre diet realizes all the importance of preventive medicine also known as community medicine.

With time and enhanced research into medications drugs such as antiepilepsy, anti-malarials, anti-tuberculosis, and also recent anti-retroviral drugs strengthens the preventive aspect of medicine & constitutes an important part of it. It's the man's quest for knowledge which has shaped up the preventive component beautifully.

Chemoprophylaxis and mass drug treatment took a major leap into a newer league where it had an all important role for prevention of many infectious diseases. People of many developing regions of the world are now able to live longer and healthier than ever before.

There also floated an idea of eradication of diseases in today's era after many achievements in its clutches. Smallpox eradication was a part of such a drive which was marvelously executed and implemented. This has further boosted energies to carry on this eradication drive for many other diseases which also now are on verge of its destiny. Regular polio surveillance at the national level is also impacting the past status of this disease to its present level where its eradication seems to be in sight.

The outstanding aspect of screening for the diagnosis of disease has made a significant impact in curtailing various diseases in its pre-symptomatic stages e.g. cancer, diabetes, cardio-vascular disease which comprise a large chunk of modern diseases.

The future of the branch of preventive medicine has a much heavier role destined to it. The problems of population explosion & global warming which haunt our generation and which is assuming greater magnitude for future assigns role community medicine to prevent its deleterious effects over mankind. The wide spread research in contraception will prove to be an important pillar to tackle various problems effectively. Also generic counseling and research will in future make it more fruitful branch for some of the most harsh problems of all times.

Various programmes which are currently running in the county have made some serious breakthroughs and future has great success in foresight for them. NRHM launched for 2005-2012 will alter the picture of health in rural India which needs attention. The achievements of individual programmes under it RNTCP, NVBDCP had been stupendous all these years and future needs great focus on its proper implementation. Newer challenges posed by disease like AIDS should be addressed duly by change in some strategies so that it further strengthens the programmes. As for now we are closing towards eradication of polio through successful programme run all over India and we hope we are able to provide a safe environment for coming generations.

Preventive aspects are being applied on increasing basis on the chronic, degenerative and hereditary aspects of many chronic and incurable diseases. Thus with advances in time preventive aspect is going to attain greater magnitudes. The growth of preventive cardiology and preventive geriatrics reflects its future trends. Modern preventive medicine truly covers all the aspects of prevention and can be thus summarized as the art and science of health promotion, disease prevention, disability limitation and rehabilitation.

Dr. Mrs. M. Bhatnagar  
Professor & Head  
Deptt. of Community Medicine, Saraswati Institute of Medical Sciences, Hapur (U.P.)  
President (U.P. & Uttrakhand Chapter of IAPSM)