



## **EDITORIAL**

### **All India Institute of Hygiene & Public Health – Reminiscences of Dreams and Reality**

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The All India Institute of Hygiene & Public Health (AIH&PH) completes its 85<sup>th</sup> Year on 30<sup>th</sup> December 2016.

Inaugurated in 1932 by Lord Willingdon, the then Viceroy of India with Lt Col A Stewart as its first Director, the origins of AIH&PH may be traced to the attempts to professionalize public health in India.

This move towards professionalization of public health developed as a result of two incidents:

- Devolution of sanitation and public health services to the provinces
- Rockefeller Foundation's arrival in the Indian Public Health scenario

Let us look into these developments which occurred almost simultaneously.

From the 1920s, the awareness regarding the need to focus on public health was growing and so was the demand. With the devolution of public health to the provinces, provincial governments initiated various measures to develop health care delivery systems, organize public health departments and organize preventive care in the rural areas.

Schemes were launched to train personnel like village nurses and school teachers for the first tier of medical and sanitary services in the rural areas, but these were both inadequate and inefficient.

Proposals for setting up training facilities were being explored, when the Rockefeller Foundation came to India.

The Rockefeller Foundation (RF) and its constituent agency, the International Health Division (IHD), were famous for their initiatives in Global Public Health, innovations in

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their approach to preventive care and as a generous donor towards creation of health institutes. Their public health programs aimed at demonstrating effective, efficient and economical methods of disease control, laid stress on public health education & community participation. The success of these programs depended on creating a cadre of competent public health personnel. To build this workforce, the foundation offered fellowships and created Fellowships and schools of public health like the Johns Hopkins School of Hygiene & Public Health in 1918, Harvard School of Public Health in 1922 and the AIH&PH in 1932.

Right from when it was conceived, the AIH&PH ran into several problems – the prime problem lay in the issue of control and consequent finances. There was strong recommendation for the Institute to be under the control of the IRFA (Indian Research Fund Association), founded in 1911 by Sir CP Lukis DG, in response to the growing demand for organizing medical research. This recommendation raised several controversies among Indian Medical Service (IMS)/non IMS, GoI and RF and finally In June 1938, the then DG of IMS, Sir E W Bradfield wrote a letter to George K Strode, Associate Director, International Health Division to help out.

John Black Grant had joined the International Health Board of the Rockefeller Foundation in 1918 and went to China to conduct a hookworm survey in 1919. In 1921, Grant was appointed International Health Division representative in China. His role in the Young China Movement and views on Social medicine and Public Health was new and in her history of the Peking Union Medical College, Mary Brown Bullock titled the chapter on Grant “Medical Bolshevik.” Indeed, he was not loath to shake up the prevailing order in pursuit of better collective health.

He was serving as Professor of Public Health at the Peking Union Medical College when the Rockefeller Foundation ~~RF~~ chose him to be the Director for reorganizing AIH&PH, Calcutta. In 1939, after 18 years of work in China, Grant was appointed director of the All-India Institute of Hygiene and Public Health in Calcutta and served in this position until 1945.

Grant’s ideas of community health led to innovative experiments in the 1920s, and matured subsequently as he applied the lessons learned in China in the context of reorganizing AIH&PH.

Grant strongly believed that belief that public health was an integral part of socioeconomic progress – a concept that we are reaffirming today as we talk of sustainable development and health.

Grant’s concept of community-based primary care envisioned that health care could be best achieved by combining preventive and curative medicine through a community “health station.”

Grant constantly made the argument that a good sample community of from 40,000-60,000 population was to a department of public health what a 250-bed hospital was to the departments of medicine, surgery, and obstetrics

While reorganizing AIH&PH, he replicated some of the innovations which he had led in China. Grant and his colleagues had established a health station in Ding Xian, a county of 400 000 people west of Beijing. The Ding Xian experiment integrated health work into a comprehensive rural education and reform movement. It provided affordable health care to the peasants and short training courses for village health workers. These efforts had provided the models for the training of barefoot doctors and rural health reforms in China from the 1950s to 1970s.

International Health Division interventions in India, had begun in 1919, with a hookworm control campaign followed by malaria control campaign and the establishment of rural health units. One such Rural Health Unit, the Mallik Health Unit, was set up by IHD in 1939 at Singur, then a village 40 Km away from Kolkata and became part of AIH&PH in 1944-45 when Grant decided that this Health Unit should be used as a Rural health unit & training centre in line with the Ding Xian model. It was one of the three field pilot centres of Primary Health care in India and continues to provide Primary Health Care services to more than one lakh population in its service area through its 2 Primary Health Centres, 4 Sub-centres and 12 Health Units.

The Rural Health Unit and Training Centre(RHUTC)continues to provide Rural Field Training of various Undergraduate (UG) & Postgraduate (PG) courses in the field of Public Health and provides opportunities for field based Public Health Research. Over last 8 decades, more than 12,000 (Twelve thousands) Public Health Students & Professionals have received their Rural Field Training here - on an average, about 50 in-service trainings are conducted annually – most, trainings, as in the days of John Grant are tailored to meet the needs of grass root level health care providers.

The Rural Health Unit & Training Centre, Singur conducted a study on family planning methods and distribution of temporary contraceptive measures in 1957 and confirmed the need and acceptability of health education for effective implementation of the National Family Planning Program – a strategy which was then adopted by the Government throughout India.

John Grant had replicated another model – that of the Beijing First Health Demonstration Station, set up by him in 1925 as a “social laboratory” for training public health professionals and students. The station in Beijing had three divisions of activities: general sanitation, vital statistics and communicable diseases, and medical services.

This was replicated at the Urban Health Centre(UHC), Chetla, established in 1955 - oldest of its kind in South East Asia, designed to provide field-based learning opportunity much like the health demonstration station, Renamed as Urban health Unit and training Centre, it serves an area of 3.9 sq. kilometre with an estimated total population of 1, 02,045 (estimated as per census 2011) out of which 36,190 are Slum dwellers (2012-13) - 35.4% of total population. The Centre provides all the eight components of primary health care to the population residing in the slum community.

Besides regular teaching and investigative research, the Beijing station maintained a school health service and an industrial medical service. The UHC too

has a School health Unit working for Health Promotion in 42 schools of the service area and an Occupational Health Unit to cater to the needs of workers especially those working in local small scale unorganized sectors e.g. among workers of motor garages, street food hawkers etc.

Over decades the Centre at Chetla provides opportunity for newer areas of research and innovation in the field of community health.

The primary aim remains making community empowered and healthy through organised team effort of all units of the centre.

Travelling down memory lane to the early years, one cannot but remember the important role of AIH&PH in shaping the recommendations of the Bhore Committee (Health Survey and Development Committee) appointed by the Viceroy in early 1944, under the chairmanship of Sir Joseph Bhore, a leading member of the Indian Civil Service. The Bhore committee was a global exercise in social medical planning, The Bhore committee was composed of leading Indian civil servants and public health specialists. The chairman, Sir Joseph Bhore, was a lawyer and a “master in the art of compromise.” Dr K.C.K.E. Raja, Professor of Public Health and Vital Statistics from the All-India Institute of Hygiene and Public Health, member secretary of the Bhore Committee, did much of the work.

Within this group, Grant represented the American variant of social medicine, interested less in inequality and more in efficiency; his was a managerial social medicine. Grant played a crucial facilitating role in the committee. Henry E. Sigerist, of Johns Hopkins medical school, member of the Bhore Committee wrote - “he is equally liked by the British and Indians and has their full confidence. He is a brilliant man of wide experience, an excellent teacher and administrator who very tactfully succeeded in inspiring and steering the committee. The best and most progressive recommendations of the Committee are his.” John Grant’s work in AIH&PH, had immensely influenced these recommendations.

Reminiscences of the early days of the Institute would be incomplete without acknowledging some of the early stalwarts - Dr K C K E Raja had been the Professor of Public Health and Vital Statistics at the All India institute of Hygiene and Public Health. This brought him close to Professor Prasanta Mahalanobis who had set up the Indian Statistical Institute. Mahalanobis got Dr Raja involved in the area of vital statistics. Two of his articles in ISI’s journal, *Sankhya*, got quickly noticed- A forecast of *Population Growth* in India and later, *Population Projections for the 1941 Census*. From then on he was associated with the country’s population census and was on the Committee to advise the Registrar General for the population censuses conducted in 1951 and 1961.

In 1938, Dr Raja moved to New Delhi in the Central Government’s Directorate of Medical Services. The top posts of Director General, Additional Director General and Deputy Director Generals had till then always been occupied by Englishmen. Dr. Raja rose to the post of Director General in 1947, soon after India attained independence-he was the first Indian to hold that post.

Another luminary was Chidambara Chandrasekaran, noted Indian demographer and statistician. He was Professor of Biostatistics at the All India Institute of Hygiene and Public Health, from 1941-8 and 1954-8.

One of his most important contributions to the field of demography was in developing a technique to estimate the number of vital events by comparing results from two different systems (such as a sample survey and a vital registration system). This technique is known as Chandrasekaran -Deming formula (also known as Dual Record System) and was first proposed in an article in 1949 "On a method of estimating birth and death rates and the extent of registration" in Journal of the American Statistical Association, 44(245): 101-115 (co-authored with W. Edwards Deming). Various improvements and adaptations of this method are now commonly used in developing countries, including India, to estimate birth and death rates.

Chandrasekaran was the lead investigator of the Mysore Population Study, a pioneering survey in collecting fertility related information, including contraceptive use, in a developing country and in demonstrating that such data could be used for analyses of fertility determinants. He also investigated the population change of the Parsis in India and the reproduction patterns of Bengali women. Chandrasekaran was active promoter of family planning policies in India and advised Jawaharlal Nehru, former Prime minister of India, on matters of demographic transition.

The AIH&PH has always pioneered initiatives towards professionalization of public health. In 1936 attempts were led by Dr. R. B. Lal, the then Director of the All India Institute of Hygiene and Public Health, Calcutta to organise a national public health association and a society was formed - The Public Health Society of Calcutta, with the active collaboration of the Sister Institute at Calcutta School of Tropical Medicine. This society was active for 3 years hosting regular monthly meetings for discussing papers on issues of public health interest. These papers were regularly published in the Indian Medical Gazette. However, the onset of World War II led to its dissolution.

The second attempt to bring about an All India Association was made in 1944 by Dr. S. C. Seal, the founder Secretary, when he joined the All India Institute of Hygiene and Public Health. An association under the name Ashok Society was established with the late Dr. R. B. Lal, Professor of Epidemiology and the then Director of the Institute, as its chairman. The membership was first offered to the public health officers who came to the Institute for post-graduate training from all parts of India with the idea of extending it further to all health workers in the country. An attempt was also made to publish a monthly news bulletin. This society also became non-functional gradually.

After independence, between 1953 and 1954. Two successive meetings with fairly large attendance under the patronage of late Dr. B. C. Roy, the then Chief cum Health Minister of West Bengal and doyen of the medical profession of India, were held in July 1954, in which the proposal for establishment an All India Public Health Association was approved and an interim Committee with Lt. Co. C. K. Lakshmanan, the then Director of the All India Institute of Hygiene and Public Health, Calcutta as chairman and Dr. S. C. Seal as its Organising Secretary, was formed. With active co-operation of the members of the interim committee and support from Dr. B. C. Roy, the then Chief Minister of West Bengal, the Indian Public Health Association was

inaugurated on the 28th September 1956 by the then Union Health Minister RajKumari Amrit Kaur at the All India Institute of Hygiene and Public Health, Calcutta. The inaugural function was attended by a galaxy of delegates including representatives of development agencies working in India at that time.

Since its inception the headquarters of the Association has been at the All India Institute of Hygiene and Public Health, Calcutta – chosen because the Institute was and continues to be a unique centre of public health in India.

The unique position of the Institute in the field of public health can be attributed to its multidisciplinary structure incorporating several specialty areas of public health – Public Health Administration, Maternity and Child welfare, Occupational Health, Veterinary Public Health, Sanitary Engineering, Health Education and Behavioural Sciences, Public Health Nursing and Biochemistry & Nutrition besides Epidemiology and Statistics. Gradually training courses both regular and short duration courses tailored to serve the needs of in-service public health professionals, have been introduced, starting with the Diploma in Public Health – the first of its kind in Asia. Attracting national and international students who have carried the torch of knowledge and skills acquired from these multidisciplinary inputs, far and wide, making AIH&PH very proud with their achievements.

The Institute has pioneered several WASH initiatives – some of the earliest being development of low cost pour flush toilets with on-site disposal along with a model for maintenance of hand-pumps for community water supply in 1949-50.

AIH&PH also has the honour of conducting the first general health survey in India, in 1944-1945, of nearly 7,000 members in 68 villages of West Bengal, to obtain an integrated picture of health conditions of the people and factors influencing community health.

Many more stories remain to be shared – the pioneering work conducted by the Institute on Epidemic dropsy, the STD and HIV prevention program in Sonagachi, a red light zone in Kolkata, which provided valuable insights into strategies for STD/HIV prevention among commercial sex workers, identifying the problem of high concentration of arsenic in ground water in some districts of West Bengal and the development of Arsenicosis in persons drinking the highly contaminated ground water in a study conducted by the Institute in collaboration with the School of Tropical Medicine setting up district level laboratories in Eastern and North Eastern Region of the Country for water quality testing under National Drinking Water Mission, the Calcutta Model for Street Food Vending paving the way for improving street food vending; study on Micronutrient Malnutrition in West Bengal, Assam, Bihar, Jharkhand, Orissa, Tripura and Gujarat;– the list goes on - - the contributions of many more faculty and staff which have built a legacy – that of the AIH&PH Kolkata, remains untold.

Looking back, in an attempt to look forward – let me share a portion of the Bhow Committee report regarding the Institute in those days – “The work of the Institute is so organized that every staff of each section, has ample time for research – probably

as much as two-third of their time". In the decade since the Institute commenced to function, some 100 scientific papers have been published in a variety of subjects, including epidemic dropsy, malaria, tuberculosis, Kalazar, nutrition, biochemistry and the clinical aspects of maternity and child welfare. Opportunities for research are exceptionally favourable because of good accommodation and equipment, ample material both in the laboratory and in the field, and adequate library facilities.

Wish we can paint such a picture again in near future!!!

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