

Research Article

70 Years of Indian Society for Malaria and Other Communicable Diseases (ISMOCD) towards Public Health in the Country

Sujeet K Singh¹, SK Jain², SN Sharma³, Sukhvir Singh⁴

^{1,2,3}National Centre for Disease Control, Dte. General of Health Services, 22-Sham Nath Marg, Delhi, India.

⁴National Vector Borne Disease Control, Programme, 22-Sham Nath Marg, Delhi, India.

DOI: <https://doi.org/10.24321/0019.5138.201907>

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Corresponding Author:

SN Sharma, National Centre for Disease Control, Dte. General of Health Services, 22-Sham Nath Marg, Delhi, India.

E-mail Id:

drsns.nvbdcp@gmail.com

Orcid Id:

<https://orcid.org/0000-0001-8569-1661>

How to cite this article:

Singh SK, Jain SK, Sharma SN et al. 70 Years of Indian Society for Malaria and Other Communicable Diseases (ISMOCD) towards Public Health in the Country. *J Commun Dis* 2019; 51(1): 29-33.

Date of Submission: 2019-02-15

Date of Acceptance: 2019-03-04

A B S T R A C T

The National Society of India for Malaria and Other Mosquito-Borne Diseases was registered on Sept. 20, 1950 under Societies Registration Act XXI of 1860. The objects and purposes of the Society were (i) to advance knowledge regarding the cause, prevalence, epidemiology, treatment, prevention and control of malaria and other-mosquito-borne diseases, (ii) to stimulate scientific and practical interest among individuals and organizations in the prompt and effective application of treatment and control methods, (iii) to integrate scientific and field activities and co-ordinate various scientific investigations, (iv) to disseminate such knowledge both to scientists and to the general public. Lt. Col. Jaswant Singh led the Society as the first President and Dr. Rajinder Pal as the Secretary. Other members of the council were Lt. Cot. Barkat Narain (Vice- President), Mr. R.S. Berry (Assistant Secretary) and Major A.P. Ray (Treasurer). On 20th May, 1964, resolved to rename the Society as "The Indian Society for Malaria and Other Communicable Diseases", a name by which it is currently known. The Society is now a registered body of scientists, researchers and professionals engaged in research and control of communicable diseases. Presently, the society has crossed more than 1500 life members registered with ISMOCD.

Keywords: Communicable Disease, Malaria, Society

Background

Globally, billions of people are at risk from viruses and bacteria transmitted by mosquitoes, ticks, fleas and other vectors. The most widely known VBD globally is malaria. However, dengue, which is caused by an arbovirus virus and is a major public health challenge in India, infects as many as 400 million 1 worldwide each year, some fatally.¹ VBDs are endemic in more than 100 countries; and are known to affect more 3 than half of the world population.² Death

among children due to VBDs is very high in low-income countries. Besides, it is estimated that all low-income 4 countries are affected by at least five VBDs, which are major killers of children under the age of five years.³⁻⁵ For example, according to the latest WHO estimates, there were about 219 million cases of malaria in 2010 and an estimated 700,000 deaths. About 90% of all malaria deaths occur in children under five years of age. The same estimates reported one million malaria cases in 2010 in India.^{5,6}

VBDs hit mainly poor populations; almost 70% of countries and territories affected by VBDs are low income and lower middle-income countries. These diseases are the most common affecting poor people in the world living on less than US 1.25\$ per day. Recently, malaria and dengue have seen an upsurge in India.⁷ Most VBDs are among what Hunt calls “type III diseases”: those with extremely little research and development, and no commercial research and development in high income countries.⁸ VBDs result in loss of productivity, school absenteeism, deeper impoverishment, higher health care, and a subsequent burden on public health services.

Before independence, medical and health services in the country were basically managed by the British officers. After independence, in 1947, the entire responsibility fell on the shoulder of Indian medical and health personnel. During British rule, curative and preventive services ran separately. Due to resource and personnel constraints, preventive services were at disadvantage. With the growing influence of specializations in clinical subjects, manpower development for preventive medicine was hampered. There was hardly any organized body of scientists/ professionals in the field of Public Health. In this scenario, the Society was born in 1950 with the efforts of Lt. Col. Jaswant Singh, the then Director of Malaria Institute of India, Delhi.

In a meeting held at the Malaria Institute of India (now National Institute of Communicable Diseases, Delhi) on 18-20th May, 1950 the malaria workers in India resolved to form a Society which made a humble beginning in 1950 as ‘The National Society of India for Malaria and Other Mosquito-Borne Diseases’. It was registered on September 20, 1950 under Societies Registration Act XXI of 1860.

Aims and Objectives

The objects and purposes of the Society were (i) to advance knowledge regarding the cause, prevalence, epidemiology, treatment, prevention and control of malaria and other-mosquito-borne diseases, (ii) to stimulate scientific and practical interest among individuals and organizations in the prompt and effective application of treatment and control methods, (iii) to integrate scientific and field activities and co-ordinate various scientific investigations, (iv) to disseminate such knowledge both to scientists and to the general public, (v) to act as liaison body between Indian and the International workers in the field, (vi) to secure and manage funds and endowments for promotion of the Society, (vii) to do and perform all other acts, matters and things that may assist in or be necessary for the fulfillment of the above aims and objects of the Society. Lt. Col. Jaswant Singh, was unanimously elected as the President and Dr. Rajinder Pal as the Secretary to the council of the Society. Other members of the council were Lt. Col. Barkat Narain (Vice- President), Mr. R.S. Berry (Assistant Secretary) and

Major A.P. Ray (Treasurer). On achieving near eradication of malaria from the country the Government of India (GoI) converted the Malaria Institute of India into National Institute of Communicable Diseases. The main object of such change-over was to stimulate research, training and dissemination of knowledge not only on mosquito-borne diseases but also other communicable diseases. In context to these changes, the general body meeting of the Society held on 20th May, 1964, resolved to rename the Society as “The Indian Society for Malaria and Other Communicable Diseases”, a name by which it is currently known. The Society is now a registered body of scientists, researchers and professionals engaged in research and control of communicable diseases. Thus, the expanded aims and objects of the Society include: 1) holding annual and other scientific conferences for dissemination of knowledge and exchange of information amongst the scientists on problems afflicting the country, 2) conferring Fellowship to its members who contributed to the cause of public health and research in the field of communicable diseases, 3) awarding Honorary Fellowship to outstanding International scientists in recognition of their contribution in the field of communicable diseases. The Society has completed over five decades of its life. It has been able to attract members from all parts of the country and also from abroad. The number of members at the end of the year 1952 was 78 and the life membership as on 3.12.93 has risen to 771 and currently has more than 1100 life members.

Karnataka State Chapter

Consequent to the decision to enlarge the Society’s activities, Karnataka state chapter was established with initiative and efforts of Dr. M.V.V.L. Narasimha, present President of the Society. It was inaugurated on 5th October, 1991, at Bangalore. The enrolment drive for Life Members from the state of Karnataka, has resulted to present level of 120 members. Dr. T. Ranganath Achar, Director, Health Services, Karnataka and Dr. P.N. Halagi are President and Secretary of the chapter. From the parent body, besides the President, Secretary, Dr. V.P. Sharma attended the inaugural ceremony of the chapter.

Activities

Activities of the Society are essentially directed to further the scientific pursuit of its members and helping them to establish contact with national and international scientists for exchange of information and ideas. These functions have been commendably performed over the years by organizing scientific meetings and publication of the bulletins/ journals. Besides annual meetings, seminars, workshops and conferences on topics of current interest in the field of medical and entomological research and disease control activities are conducted by the Society from time to time. The proceedings of these deliberations are released

through press, radio and television and at times, publication of special issue of the journal. The Society started publishing a bulletin following the meeting of its executive committee in 1950. The compelling reason for such a publication was the limited number of scientific Journal available inside the country at that time. Enormous delay in percolation of time bound scientific information was common. The members, therefore, took active interest in publishing the Bulletin and contributing articles in it. The topics covered various aspects of malaria research and control, news items, review of literature on different insect-borne diseases, etc. The first issue of the publication entitled "Bulletin of the National Society of India for Malaria and Other Mosquito-Borne Diseases" was brought out in 1953. It was blessed with messages from the then Hon'ble Prime Minister Jawaharlal Nehru and Hon'ble Union Health Minister Rajkumari Amrit Kaur. The name of the Bulletin was changed to "Bulletin of the Indian Society for Malaria and Other Communicable Diseases" in 1964 and subsequently, to expand the activities of the Society to a bigger group of scientific workers in Medical colleges and public health organizations to "*Journal of Communicable Diseases*" in 1968. The Journal started its quarterly publication from 1969 under the editorship of Dr. S.L. Dhir, the then President of the Society. The bulletins and subsequent journals published by the Society have made solid contributions to the literature on Malaria, Filariasis, Leishmaniasis, Dengue, Japanese Encephalitis, Plague, Acquired Immuno- Deficiency Syndrome (AIDS) etc.' The journal played an important role by publishing scientific and operational research papers for dissemination of information to the researchers and field workers in the aforesaid diseases. It has made its place at International level and is indexed/abstracted by all leading agencies, viz. Index Medicus including Bibliography of Medical Reviews, Quarterly Bibliography of Major Tropical Diseases, Biological Abstracts, Tropical Diseases Bulletin, Abstract of Hygiene, Excerpt Medica, U.S.S.R. Academy of Sciences and Safety Science Abstract and Index-Catalogue of Medical and Veterinary Zoology and Drugs and Pharmaceuticals. Today the Journal of Communicable Diseases publishes 975 copies at quarterly interval

Achievements

Scientific contributions of the members published in the society's bulletin/ journal accelerated the governmental action to launch various disease control programmes in the country. Lt. Col. Jaswant Singh, the first president of the society reported India's efforts in the development of malaria control schemes in various states, railways, irrigation and other multipurpose projects during war and subsequent years. He and his colleague L.M. Bhattacharjee developed the famous J.S.B. (Jaswant Singh-Bhattacharjee) stain a rapid staining process of blood smears. Today this is classified in standard text books as one of the most efficient

rapid water-soluble stain for detecting malaria parasites. The effect of the new discoveries of synthetic insecticides on vector species and their future use in the control of mosquito-borne diseases was specially highlighted. All these pioneering works led to the implementation of National Malaria control/ Eradication Programme.

Soon after the independence, the national reconstruction programme was taken up with greatest zeal and enthusiasm. However, malaria was the greatest scourge of the country and was hindering the progress in agriculture and industry. The task of controlling the disease was shouldered by three of our eminent members, Lt. Col. Jaswant Singh, Dr. B.A. Rao and Dr. A.P. Ray. After the initial success of the malaria control programme Dr. A.P. Ray took over the programme from Dr. B.A. Rao. Dr. Ray's personality and hard work is well known. He has contributed in almost every aspects of malaria. His knowledge of field conditions and epidemiology of malaria in India can hardly be surpassed. The meticulous planning and execution of NMEP under his guidance brought quick results and developmental activities in highly malarious areas was possible.

Malaria resurgence in seventies led our members to organize meetings and seminars for reviewing the situation and actions needed. It was recognized by the Society, that the existing technology of malaria control is inadequate particularly in view of vector resistance to the insecticides and drug resistance of the parasite (*Plasmodium falciparum*). The need for intensified research to find out new additional tools was emphasized. The efforts of our members in this aspect led to the recognition by GOI and ICMR and resulted to the formation of Modified Plan of Operation under the able leadership of Dr. S. Pattanayak and formation of a task force on malaria research by the ICMR in 1977.

The Society feels proud to mention that a team of members (Raichowdhuri and others) was first in the country to successfully cultivate in-vitro, an Indian strain of *P. falciparum*. In order to transfer this expertise, our members organized and conducted workshops on in-vitro culture of malaria parasite and serology of malaria. Scientists and research workers from leading institutions of the country participated in them. The importance of filariasis as public health problem in India was brought out by the tireless work of Lt. Col. Jaswant Singh and Dr. N.G.S. Raghvan. The adoption of *Litomosoides carinii*, a natural parasite in cotton rat, as a very ideal model, published in the Society's journal, was a major breakthrough for screening various anti-filarials and for studying host- parasite relationship. As an initial anti-filarial activity, GOI sanctioned a small unit under the able guidance of Dr. N.G.S. Raghvan as a section of Malaria Institute of India in 1953. Dr. Raghvan piloted the first field project for the control of filaria in Orissa from 1953 to 1958. This paved the way for launching the National Filariasis Control Programme in 1958. The risk

of yellow fever introduction in the country received the attention of the Society. Dr. C. V. Ramchandani's work supported this apprehension. The GoI was advised to take measure for immediate containment of the disease if it is introduced in the country. Consequently, GoI set-up a yellow fever vaccine unit at Central Research Institute, Kasauli. Society members contributed wholeheartedly to the national efforts of eradicating small-pox. As a result, the country was declared small-pox free by the World Health Organization on July 5, 1975. Dr. M.I.D. Sharma and a band of dedicated workers largely drawn out of the members of the society, worked tirelessly to make this campaign a success. On reaching the small-pox free status, the members of the Society considered what other diseases could be eradicated. All agreed that guinea worm infection which was prevalent in seven states of India should be taken up for eradication.

The time for starting the programme was also appropriate since this could be linked with the programme of International Water Supply and Sanitation Decade. Due to efforts of our members, the Guinea Worm Eradication Programme (GWEP) was accepted by GoI and launched in 1983-84. The last case of guinea worm was reported from Jodhpur district, Rajasthan during July 1996. World Health Organization certified India as guinea worm disease free country in February 2000. Eradication of small pox and guinea worm disease led to launching of Yaws Eradication Programme (YEP). The programme was launched in 1996-97 and has been implemented in 49 districts of ten states (Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu and Uttar Pradesh). The Ministry of Health & Family Welfare, Govt. of India reported interruption of indigenous transmission of yaws, the last cases were officially reported in 2003. The programme achieved Nil yaws case status during 2004 and yaws elimination was formally declared by Hon'ble HFM Dr. Anbumani Ramadoss on 19th September 2006. YAWS has been declared eradicated from India by WHO in July 2016. Because of excellence of our members, they are often called upon to act as experts, advisors and consultants by international agencies and world bodies. Some also served/are serving in these organizations. Some members rose to eminent positions and were recipients of various national and international awards for which the Society indeed proud of.

The Society confers "Honorary Fellowship" of the Society to eminent dignitaries from time to time. Dr. V.T.H Gunaratne, former Regional Director, SEAR, WHO was last awarded the "Honorary Fellowship" during 1977. For the first time in the history of the Society, Prof. H.C. Gugnani, a life member, donated Rs.20,000.00 (rupees twenty thousand only) in December, 1993, for setting-up a trust to perpetuate the memory of his father as "Chaman Lal Gugnani Memorial

Oration Award". This consists of a scroll of honor and a silver medal to an eminent scientist/health worker selected by the board of trustees. Apart from this, the Society honors eminent personalities with Late "A.P. Ray Medal" and "ISMOCD Annual Oration award".

Over seven decades of activities, the Society has helped the country in its disease control efforts. The members of the past and present executive body of the Society worked intensely to maintain high standard of professional ethics and scientific integrity. All the members of the Society should genuinely feel proud of its activities and achievements. Due to the explosion of information technology and high cost of printing, our Society would face tremendous problems in sustaining the publication of the journal. To combat this gloomy prospect mobilization of funds from more and more advertisements needs close consideration. It will be appropriate to get advertisements of products like biomedical equipment, diagnostic kits, fine chemicals, research equipment etc. This will help our members to get informed of the source of availability of these products for their research and field works. A galaxy of experts being life members of ISMOCD are actively engaged in the elimination of malaria (Target: 2030), elimination of lymphatic filariasis (Target: 2020) and elimination of visceral leishmaniasis (Target: 2018-19) at the National and State level.

During 2014 in Goa Conference of ISMOCD, Dr. A.P. Ray ISMOCD Medal was given to Dr. A.K. Mukhopadhyaya, Former Joint Director, NVBDCP. Shri Chaman Lal Gugnani ISMOCD Award was given to Ch. Krishan Rao Former Dy. Director. Dr. Sanjiv Mohanti, ISPAT Hospital Rourkey Odisha got Dr. S. Pattanayak Memorial ISMOCD Award and ISMOCD Oration Award was given to Dr. Rajesh Kumar, Prof. & Head, School of Public Health, PGI Chandigarh.

During 11th Joint Annual Conference of ISMOCD and IAE Bengaluru 10th-12th June 2016, Dr. A.P. Ray ISMOCD Medal was given to Dr. P.L. Joshi Former Director, NVBDCP. Shri Chaman Lal Gugnani ISMOCD Award was given to Dr. Neena Valecha Director, NIMR. Dr. A.C. Dhariwal Director, NVBDCP got Dr. S. Pattanayak Memorial ISMOCD Award and ISMOCD Oration Award was given to Dr. Pradeep Das Director, RMRI, Patna.

Dr. Soumya Swaminathan, Secretary, Department of Health Research Dr. Swarup Sarkar, Director, Department of Communicable Diseases (CDS), World Health Organization, SEARO, Dr. J.K. Das, Director, National Institute of Health and Family Welfare (NIHFW), Dr. Altaf Lal, Advisor, SUN Pharma and Dr. P.K. Rajagopalan, Ex. Director, Vector Control Research Center (VCRC) were given life time achievement awards. Best Services in Public Health Award was given to Dr. N.S. Dharmasaktu, Special DGHS, Dte. GHS Dr. D. Bora, Ex. Addl. Director, NVBDCP & Managing Editor, IJM got Glorious Personality of the Association Award.

During the XIIth Conference of ISMOCD held at Pune from 1st to 3rd September 2017, Dr. A.P. Ray Medal was given to Dr. Ashok Kumar, Ex. Addl. Director General of Health Services, Govt. of India with Shri Chaman Lal Gugnani award to Dr. B.S. Dewan. Dr. M.M. Pardhan Joint Director Odisha state received Dr. S. Pattanayak Memorial Award, while Dr. B.R. Satpathi was given ISMOCD Oration. Dr. A.C. Dhariwal, Director NCDC and Dr. V.M. Tilak, AFMC Pune received life time achievement award of ISMOCD. Best Performance award was given to Dr. Rina Tilak, AFMC Pune from ISMOCD.

ISMOCD has been led by very senior public health personalities namely Dr. Shiv Lal, Former Spl. DGHS & Director NCDC, Dr. A.C. Dhariwal, Director NVBDCP and Dr. P.K. Sen, Director NVBDCP. Presently, Dr. Sujeet Kumar Singh is the guiding force for ISMOCD as President of the society. The society is having its prestigious and independent Journal of Communicable Diseases (JCD) with its 4 issues in a year presently being published by ADR Publications on regular basis. The authors have the online facilities for submission of their research articles and view the status till final decision is taken by the editorial board for its publication.

Dr. S. Venkatesh, Director General of Health Services, Govt. of India is the Patron of JCD and Dr. Sujeet K. Singh, Director and President of ISMOCD is its Editor. ISMOCD has increased its membership above 1500 life members.

Indian Society for Malaria and Other Communicable Diseases is also having its website with details of its life members, updates and copies of all issues of JCD being published. The society is fully engaged for the public health cause supporting any issue of communicable diseases in the country. Recently, a wide networking has been attempted with the state program officers, Medical Colleges, Regional Directors, Municipal Corporations, public health entomologists, biologists through one day Technical Consultation on the emerging threats of VBDs including Zika, Yellow Fever, Scrub Typhus etc. was held on 1.2.2019 at Chandigarh. Four eminent speakers were invited to deliver the talks on the emerging threats, challenges, roadmap and action plan for future preparedness.

Conflict of Interest: None

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