

## History of Contemporary Medicine in Iran

# History of the School of Public Health and Institute of Public Health Research of Tehran University

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I was asked to write about the history of the School of Public Health but as it is not possible to separate its history from that of the Institute of Public Health Research, I decided to use this title for my article. This article covers only the history of the School of Public Health before the revolution. The starting point was the Chair of Parasitology at the Faculty of Medicine of University of Tehran. The law for establishment of this university was passed 80 years ago in 1935. It was the only university in Iran at that time. One of the Faculties of this university was the Faculty of Medicine which included Schools of Pharmacy and Dentistry, the Faculty of Medicine itself, which had several Chairs and a few teaching hospitals. Each Chair consisted of a Professor, an Associate Professor and several other faculty members. One of the Chairs was the Chair of Parasitology.

In 1938, it was decided to make radical changes in the Faculty of Medicine. Professor Charles Oberling, a professor of pathology from Paris, was invited to become the new Dean to implement these radical changes. He decided to bring new knowledgeable, younger and more active faculty members. Dr. Nasser Ansari was appointed as the new Professor of the Chair of Parasitology. Dr. Ansari had his medical education in Iran (in *Darelfonoon*) and then did his specialty in parasitology in Paris. Professor Oberling knew him while he was studying parasitology there and this was the reason he selected him as the Professor for the Chair. Dr. Ansari selected Dr. Mofidi as his Associate Professor. Dr. Mofidi had received his medical degree from the University of Tehran and had completed additional studies in parasitology in France and Tehran. He was working at the Pasteur Institute of Tehran as a technologist. His main work in the Pasteur Institute was on *Leishmania* parasite in mice. Dr. Ansari saw his work there, and based on the recommendations of other professors at the School of Medicine regarding his intelligence and hard work, he selected him for this job while he was younger than other faculty members of the Chair. Actually, he considered Dr. Mofidi as his own scientific protégé.

Dr. Mofidi was later sent to Johns Hopkins University in the US to continue his studies in the field of public health. Both Dr. Ansari and Dr. Mofidi were keen to promote the science of parasitology, control of parasitic diseases in Iran and especially help the Government to promote public health activities in the country.

At that time, the Ministry of Health activities in the field of public health were very limited covering only small pox vaccination and quarantine of ships in the main southern ports of Iran. Ac-

tive public health programs started after the Plan Organization was established in 1949. The Plan Organization's main work was administering development programs in various areas, including public health.<sup>1,2</sup>

On the basis of the request of the Government of Iran, several public health experts came to Iran to study the major health problems, especially malaria, the cases of which were estimated at 5 million per year (the population of the country was about 18 million in the census of 1946). The Malaria control programs started with DDT spraying of the areas which were heavily infected.<sup>1,2</sup>

In late 1950s, the structure of the Plan Organization changed and its health programs were transferred to the Ministry of Health under the name of the Department of Preventive Medicine. When the government of Iran signed an agreement with the USA (point 4) and accepted assistance from the United States Technical Cooperation Mission, the first members of the health division of this Mission came to Iran in April 1951. Their aim was to give administrative and operational guidance to the Ministry of Health in development of health programs. Their first action was obtaining DDT from the USA on emergency basis because malaria control programs were threatened due to DDT shortage.

On December 31, 1952, based on an agreement between the Ministry of Health and the US Technical Cooperation Mission that was signed before, an agency called the Public Health Cooperative was established in the Ministry of Health for cooperation in training and demonstration programs in Public Health. Although this agency was part of the Ministry, it had an independent administration. At the headquarters, there were two chiefs, one Iranian (Director General, Department of Preventive Medicine) and one American (chief of Health Division). In the provinces, the Ostan Health Cooperative also had two chiefs, one Iranian (Ostan Health Officer) and one American (chief of health team).

Since an important part of the work was in the area of malaria control all over the country, Dr. Ansari took this opportunity and proposed the establishment of the Institute of Malariology jointly by Faculty of Medicine of Tehran University, the above Agency in the Ministry of Health and World Health Organization (WHO) malaria control advisory group. The main work of the Institute was:

1. Carrying out malariometric surveys every year to determine malaria situation in different parts of the country and report the results to the Ministry of Health for planning and implementing control programs.
2. Arranging malariology courses at the high level for all provinces to train high-level managers for malaria control.
3. Arranging courses of malaria for mid-level managers for malaria infected districts.

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The organization of the Institute of Malariology consisted of one Director (Dr. Ansari), one Assistant Director (Dr. Mofidi) and several divisions, each with an Associate Director, as follows: Division of Malaria Parasitology (Dr. Hadjian), Division of Epidemiology (Dr. Faghih from the Chair of Parasitology and Dr. Mohtadi from the Ministry of Health), Division of Malaria Entomology (Dr. Ghaffari from the Chair of Biology of Faculty of Medicine and Dr. Mesghali), and Division of Administration (Dr. Bijan). The staff of the Institute was partly from the Chair of Parasitology of the Faculty of Medicine, partly from the Ministry and many field workers who were recruited at different levels on contract basis.

Malaria research was being conducted by mobile teams, but since the courses of malariology needed field training and malaria programs needed additional research in addition to malariometric surveys, the institute started two health research stations, one in Kazeroun and one in Bandar Abbas. Malaria research was supervised by the board of managers, all associate senior staff of Dr. Mofidi. The head of Kazeroun station was Dr. Motabar, while the head of the Bandar Abbas station rotated among mid-level managers recruited with the title of associate instructor.

Later, because of reappearance of Malaria in Abadan, a research station was established in Abadan with the help of the Iran National Oil Company.

The management of the Institute made an agreement with WHO advisors who were in Iran to start a new program on Arthropod Borne Disease Control (ABDC) Research. For this purpose, two health research stations were established, one in Sabzevar and one in Malayer, with a substation in Songhor. The supervisor for this program in Tehran was Dr. Faghih. During the period, while Dr. Faghih went to London School of Hygiene and Tropical Medicine for a sabbatical, Dr. Hadjian was the supervisor.

Alongside these activities, the Project decided to run a Diploma course on ABDC epidemiology. Each course lasted one year and consisted of a 6-month course in Tehran and 6 months in the field. Dr. Nadim, who was a student in the second course, later became the head of the Sabzevar station.

Based on the success in research that helped control malaria, and recommendations of Dr. Ansari, Dr. Mofidi and his associates decided to broaden the area of their research and experimental control of other parasitic diseases. The Institute signed an agreement with WHO to start activities on schistosomiasis in Khuzestan, the only province in which the disease was endemic. The institute established a Health Research Station for this purpose in Dezful and its staff included a strong team of young Iranian parasitologists, mostly working on contract basis, as well as permanent staff and scientists sent by WHO.

Dr. Bijan, one of the senior associates of Dr. Mofidi, was the supervisor for all these activities. The head of the station was Dr. Arfaa. Similar attempts were made for studies that helped control hookworm infection in northern Iran. At that time, preliminary studies in Mazandaran Province showed that, in rural areas, more than 70% of people were infected by hookworm. A Health Research Station opened in Tonekabon (at that time Shahsavari) and research started there to help control hookworm. Dr. Hadjian, another senior associate of Dr. Mofidi, was the supervisor in Tehran. The head of the station was Dr. F. Amini.

Because of these changes, the name of the Institute was changed to the Institute of Malariology and Parasitology.

When the structure of the University of Tehran changed from

Chairs to Departments, each Department could have as many professors or associate professors according to the years of teaching and doing research. Dr. Mofidi became professor and his associates, Dr. Mesghali, Dr. Faghih, Dr. Bijan, and Dr. Hadjian, became associate professors.

At that time, Dr. Mojallal, who was professor of the Chair of Tropical Diseases, retired and proposed that his chair be attached to the Institute. Therefore, once again the name of the Institute changed and became the Institute of Malariology, Parasitology and Tropical Medicine. In 1964, Dr. Etemadian, who was professor of Public Health and Nutrition, retired and he too proposed that his chair be joined with the Department of Parasitology. Therefore, since 1964, when the new organization for Faculties was finally approved to have Departments instead of Chairs, the name became Department of Public Health and Institute of Public Health Research.

After a few years, other Departments of the Faculty of Medicine, seeing that the growth of the Department of Public Health had made it very large compared to other Departments, proposed to the University to change the Department of Public Health to the School of Public Health, provided that its staff continued to teach their courses (parasitology, tropical diseases, health and nutrition) at the Faculty of Medicine. The University accepted this proposal and in 1966, the name changed to the School of Public Health and Institute of Public Health Research. The school had a Dean, who was at the same time Director of the Institute, and a Vice Dean who was Assistant Director of the Institute.

The School of Public Health started with 5 Departments: Public Health Administration (Dr. Baseghi), Environmental Health (which included medical entomology) (Dr. Mesghali), Biostatistics (Dr. Nehapetian), Ecology of Human Health (which included epidemiology, nutrition, and later family health) (Dr. Mofidi), and Occupational Health (Dr. Bijan). When Dr. Faghih became the Dean, based on the suggestion of Dr. Nadim that in most Schools of Public Health around the world epidemiology and biostatistics are always grouped together, the Department of Biostatistics became the Department of Epidemiology and Biostatistics. In 1971, the Department of Parasitology of the School of Pharmacy joined the School of Public Health and Dr. Mohsenin from the School of Pharmacy became the Head of the Department of Parasitology. The School signed two agreements with WHO. One contract was with the new division of Epidemiology and Information Science of WHO Headquarters in Geneva, on the basis of which an experimental program of Primary Health Care started in the Province of West Azerbaijan. A health research station was established in Urmiah (at that time, Rezaieh), in which staff of the Institute and WHO worked together to implement the program. During the same period, two other research programs were being done on the implementation of primary health care, one in Shiraz and one in Alashtar (in Lorestan). In 1978, an independent group was asked to decide which one of these PHC programs is the best for Iran, and the result was that the one in West Azerbaijan was the best. This program was accepted to be implemented in all rural areas of Iran.

The other WHO contract was with the International Agency for Research on Cancer (IARC) to study the epidemiology and risk factors of esophageal cancer in northeast of the Caspian littoral area (Turkemen Sahra), where the highest incidence of the disease in the world was reported. A health research station was established in Babol and staff of the Institute and IARC started to work

together in the Province of Mazandaran (Golestan Province was part of Mazandaran Province at that time).

## Research

The School of Public Health, the Institute of Public Health Research and their field Health Stations, with collaboration of colleagues in the Ministry of Health, as well as joint projects with the World Health Organization, have contributed a lot to research in the fields of Public Health, Parasitology and Entomology. Below are just a few of their accomplishments:

1. Elimination of schistosomiasis in Khuzestan, the only infected province in Iran.<sup>3</sup>
2. Elimination of hookworm infection in the Caspian littoral areas.
3. Studies on experimental implementation of Primary Health Care activities, which after the Revolution were accepted and implemented by the Ministry of Health all over the country.
4. Detailed research on all aspects of Malaria.<sup>4,5,6</sup>
5. Detailed studies on the epidemiology, entomology and control of leishmaniasis. One of these research findings (leishmanization) was used extensively on soldiers who were going to the war front to immunize them against cutaneous leishmaniasis (about 2 million soldiers were inoculated).<sup>7,8</sup>
6. Detailed studies on the epidemiology of esophageal cancer in northeast of Iran (mainly with collaboration of the International Agency for Research on Cancer, IARC, of WHO).<sup>9,10</sup>

## Education

The School of Public Health is a graduate school without any undergraduate students. The degrees it offered were:

1. Master of Public Health (MPH). This degree was for high- and mid-level managers of the Ministry of Health and other government organizations having public health activities. Also, in collaboration with the Department of Infectious Diseases, residents in that department could get the degree of MPH as part of their specialty. Before the Revolution, the School ran two times international course of MPH with emphasis on malaria for the World Health Organization.
2. Master of Science in Public Health (MSPH) in the areas of Biostatistics, Environmental Health, Parasitology and Entomology, Health Education, Occupational Health, and some other

disciplines. Later, when the Department of Pathobiology started, MSPH in Pathobiology was also added to the program.

3. Doctoral degree in the field of Epidemiology, Maternal and Child Health, Parasitology and Entomology, and many other branches of Public Health. All candidates for a doctoral degree were also required to get the degree of MPH as part of their program.

Most of the managers and technologists working in Health Centers all over the country have been students of the School of Public Health or the majority of their teachers in related fields in other universities were graduates of the School of Public Health.

Since 1979, the year of the Revolution, changes were made in the organization and work of the School and the Institute. These changes are beyond the scope of this paper, which is the history of the School of Public Health and Institute of Public Health Research.

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