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A BRIEF HISTORY OF THE DEVELOPMENT OF THE PUBLIC HEALTH SERVICES IN SRI LANKA

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The Distant Past

It is reasonable to assume that the people of ancient Sri Lanka, who had reached a high degree of civilisation, had adopted sound, effective measures to safeguard their health. This assumption is confirmed by numerous references in the chronicles and ancient inscriptions as well as from evidence of archaeological remains. The *Mahavamsa*, the Pali chronicle of Sri Lanka, refers to the sanitary measures taken by the Sinhala kings to safeguard the health of the people. As early as the 4th century BC, in the reign of King Pandukabhaya, it records that the king appointed 500 *chandalas* (persons of low caste) to work in cleaning the streets and 200 *chandalas* for clearing the sewers. Sanitation and matters related to public safety were entrusted to an officer called the *Nagaraguttika*: this appointment was held by the no less a person than the king's uncle during his reign.

Amidst the ruins of monastic buildings– particularly in the western monasteries of Anuradhapura– are to be seen the remains of privies, urinals, and baths. Paranavitarane draws attention to the elaborate design of two such structures: one a squatting type latrine at the Abhayagiriya; and the other, a seat type toilet in the Western Porch at Polonnaruwa.[2] These and other findings indicate that the ancient Sinhalese were not unaware of the importance of good sanitary practices.

Occupation of the Island by the Portugese, Dutch and the British

Whilst providing an insight into the traditional health practices of the people, these findings have little bearing on the development of the existing public health services in Sri Lanka, which are based on the allopathic system of medicine introduced into the island by the successive occupation of it by the Portuguese (1505), the Dutch (1656) and the British (1796).

The Dutch built hospitals in different parts of the island and manned them with their physicians and surgeons. The Leper Asylum at Hendala (now the Leprosy Hospital) built in 1708 for the segregation of persons suffering from leprosy is a lasting monument to their contribution to public health.

The British occupied the maritime provinces in 1796 and gained full control of the island in 1815 with the signing of the Kandyan Convention. Small pox and cholera were major communicable diseases prevalent at that time. One of the earliest epidemics that the British had to deal with was a serious outbreak of small pox, which occurred in 1798. In 1820, a cholera epidemic in Mannar is reported to have caused the deaths of one-sixth of the population in the area.

Commencing with the establishment of the first dispensary for western medicine in Colombo for the troops, in 1800, the British established military hospitals and dispensaries in other parts of the island. The civilian population was provided medical care by the doctors in the military establishment until 1858, when the Civil Medical Department was established with a Principal Civil Medical Officer and Inspector General of Hospitals as head. Provincial Surgeons were appointed to be in charge of the administration of the provinces. By 1886, the Civil Medical Department had

established 26 Civil Hospitals, 8 District Hospitals, 6 Immigration Hospitals (for the care of immigrant Indian labourers who fell ill on the way to the plantations– see below), 14 District Outdoor Dispensaries, the Leper Asylum and a Lunatic Asylum. Public health work in their respective areas was the responsibility of officers of the Civil Medical Department, and the only type of public health work undertaken by them was the control of large-scale epidemics.[3]

Legislation enacted during the Early British Rule

Much of the legislation enforced during the early British rule was aimed at controlling the spread of major communicable diseases prevalent in the country and preventing their introduction from outside the country. Accordingly, a proclamation in 1800 dealt with the control of small pox outbreaks, and a proclamation in 1802 dealt with establishing quarantine regulations to prevent the introduction of plague from Egypt.[3]

The *Public Health and Suppression of Nuisances Ordinance No. 15 of 1862* was the first legal enactment relating to public health enacted after the establishment of the Civil Medical Department. Boards of Health headed by the Government Agents were appointed to the provinces under the provisions of this Ordinance. These boards were empowered to frame regulations to inspect premises, abate nuisances, ensure sanitation and institute legal proceedings for contraventions of the law. With the enactment of the *Municipal Councils Ordinance No. 17 of 1865*, municipal councils were first established in Colombo, Kandy and Galle. Public health responsibilities of the Boards of Health were transferred to these councils. Other large towns were brought under the control of Local Boards of Health. In 1892, small towns were brought under the control of Sanitary Boards after the enactment of the *Small Towns Sanitary Ordinance of 1892*. Each Sanitary Board was headed by the Assistant Government Agent and included the senior officer of the Public Works Department, the senior officer of the Medical Department and 2–4 members nominated by the Governor. With the creation of local authorities by the enactment of ordinances relating to the establishment of municipal, urban, town and village councils, environmental health functions eventually became the responsibility of these councils; enforcement of the Ordinance and implementation of environmental health activities was carried out by local authorities under the guidance of medical officers of health and sanitary inspectors of the Department. [4]

Ordinance No. 9 was enacted in 1863 to 'extend and make compulsory the practice of vaccination'. This was later repealed by the enactment of the *Vaccination Ordinance No. 20 of 1886*.[3,5] Provincial Surgeons were appointed Superintendents of Vaccination for their provinces. They were required to carry out a programme of vaccination in their provinces in consultation with the Government Agents by dividing each district into convenient divisions, and ensure that all adults and children over three months of age were vaccinated. Vaccination of the unvaccinated and re-vaccination of the vaccinated was performed in case of an outbreak of small pox. Trained vaccinators were employed as active agents for carrying out vaccination in the island.[5]

The *Quarantine and Prevention of Diseases Ordinance* was enacted in 1897 with special regulations to segregate cases of the major communicable diseases– small pox, cholera and plague.[3]

Small pox and cholera, which were endemic in South India, were introduced into Sri Lanka by the free entry of immigrant labour from South India in the 1820s. Until the Railway was built in 1914, immigrants had a long and arduous trek from Mannar to Matale from whence they were assigned to estates. They took the route through Medawachchiya, Anuradhapura and Dambulla to reach their destination. Some died

on the way of small pox, cholera and dysentery, which diseases caused outbreaks among the local population in the areas through which they passed. Some died of starvation. Immigrant Hospitals were set up along the route for treating the sick.[4]

In order to prevent the introduction of small pox, cholera and plague by the immigrant Indian labour population originating in South India, a Detention Camp for labourers was established at Tattaparai in South India, in 1899; and with the inauguration of the Indo-Ceylon Railway in 1914, another Quarantine Camp was established in Mandapam in South India. Only labourers passing through these camps were allowed entry into Ceylon. These two quarantine camps effectively prevented small pox and cholera becoming endemic in Ceylon.[3,4]

Establishment of the Sanitary Branch

On the recommendations of a committee appointed by the colonial Governor, in 1912, the Sanitary Branch of the Civil Medical Department was established in 1913, under a Senior Sanitary Officer. Sanitary Officers, later to be designated Medical Officers of Health (MOH) were appointed and stationed mainly in the larger towns. Sanitary Inspectors, who received a training of six months, were appointed to assist them.[3]

Ankylostomiasis Campaign and the Rockefeller Foundation

Hookworm disease was a major public health problem in the island during the early part of the twentieth century; it was believed that the immigrant Indian labourers employed in the plantations were infecting the Sinhalese in the neighbouring villages. In 1915, a campaign for the control of hookworm disease was inaugurated with the assistance of the International Health Division of the Rockefeller Foundation.[3] In addition to commencing mass campaigns for the treatment of infected persons, one of the chief activities of the campaign was the provision of sanitary facilities, particularly for the estate and rural areas.[6] The Rockefeller Foundation was to play a vital role in the early development of the public health services of Sri Lanka (see below).

Early Efforts at Malaria Control

The first organised efforts to control malaria started at Kurunegala, in 1911, under Dr S.T. Gunasekera (who later became the first Ceylonese Director of Medical and Sanitary Services). Mr H.F. Carter was appointed as Malariologist in 1921 to study the malaria situation in Ceylon following which additional Anti-Malaria campaign centres were opened in Mahara, Anuradhapura and Trincomalee, in 1922 and 1923.[3]

Amalgamation of the Curative and Preventive Services

Even though the curative and preventive services functioned under the aegis of the Civil Medical Department the preventive health services functioned, more or less, independently. In 1925, in recognition of the growing importance of public health, the curative and preventive services were brought under the control of a Director of Medical and Sanitary Services; the Principal Civil Medical Officer and Inspector General of Hospitals was appointed to this post. The Assistant Principal Civil Medical Officer was appointed as the Deputy Director of Medical and Sanitary Services and two Assistant Directors were appointed: one for medical services and the other for sanitary services. The Senior Sanitary Officer of the Sanitary Branch assumed duties as the Assistant Director of Sanitary Services in the new Department of Medical and Sanitary Services.[3,4]

Inauguration of the Health Unit System

One of the early progressive steps taken after the establishment of the Department of Medical and Sanitary Services was the inauguration of the Health Unit system with

the establishment, in 1926, of the first Health Unit in Kalutara. This unit was established to undertake all public health work on an intensive scale in a well-demarcated area. A medical officer of health (MOH) was appointed in charge. He was assisted by public health inspectors who were responsible for environmental health and the control of communicable diseases, and public health nurses and public health midwives who were responsible for maternal and child health activities.[3,6]

Each Health Unit was expected to serve a population of 40–80 thousand people, and undertake the following activities:

- Carry out general and health surveys into the various problems in the area
- Collection and study vital statistics in the area
- Health education
- Investigation and control infectious diseases
- Maternal and child health
- School health work
- Rural and urban sanitation.

With the passage of time the Health Unit system was extended to cover the entire country providing a most efficient system for the delivery of preventive health care. It has remained the basis for the implementation of public health activities over the years, with little modification.

Chellappah [7] remarks that this was instrumental in changing the whole outlook of public health in the island.

Establishment of the Sanitary Engineering Division (Public Health Engineering Division)

In 1927, the Sanitary Engineering Division of the Department was established utilising the services of the sanitary engineer of the International Health Division of the Rockefeller Foundation.[3] The functions of this division were: to deal with general drainage, especially malaria drainage; provision of water supplies; disposal of sewage; and the development of type plans for sanitary conveniences.[13] This division later developed into the Public Health Engineering Division of the Department of Health Services with five regional offices in the island. In later years officers of this division were absorbed into the Buildings Department during the re-organisation of the engineering services of the island in 1971. This division was responsible for the development of several types of sanitary latrines suitable for rural areas, which are still used by the Department of Health Services in their rural sanitation programmes.[6]

The International Health Division of the Rockefeller Foundation Ends its Services

The International Health Division of Rockefeller Foundation concluded its mission in 1934 after having rendered invaluable service to the country in the development of the public health services. It is noteworthy that the Rockefeller Foundation played a key role in the introduction to Ceylon of the Ankylostomiasis Campaign, the Anti-Malaria Campaign, the Health Unit Organisation and the Sanitary Engineering Division (later the Public Health Engineering Division) of the Department.[3]

All-island Malaria Control and Health Scheme

Although epidemics of malaria occurred at frequent intervals, the most devastating malaria epidemic up to that time occurred in late 1934 and continued during 1935. 1.5 million cases with some 80,000 deaths were recorded during a period of seven months![4] It led to the adoption of the all-island Malaria Control and Health Scheme in 1936. Under this scheme, 55 Medical officers, designated Field Medical Officers,

were appointed to carry out preventive health work in the rural areas and to execute a programme of malaria control. At this time the cadre of medical officers carrying out preventive health work had increased to 24 Medical Officers of Health (working mainly in urban areas), 4 Medical Officers of Health for Port Health work, and 3 Inspecting Medical Officers for Estates with 2 Assistants. Thus the appointment of 55 Field Medical Officers under the Malaria Control and Health Scheme strengthened the public health services and paved the way for an extended general health programme based on the Health Unit system.[3]

Under this programme a five-point rural sanitation scheme was introduced which was to form the basis of the rural sanitation programme in future years; the following requirements were considered essential for a healthy rural home:

1. a well ventilated house
2. boiled, cooled water for drinking
3. a sanitary latrine
4. a manure pit
5. a kitchen garden.[6]

All Ceylon Malaria Day and the All Ceylon Health Week

The All Ceylon Malaria Day was first celebrated in 1938 to create awareness on malaria in the community and secure their participation in control activities. This was the forerunner of the subsequent All Ceylon Health Week, which has continued to be celebrated as an annual event to this day.[3] A theme of current importance was selected for the Health Week, which has been celebrated in June every year; today, the theme of World Health Day is chosen as the theme for Health Week. (World Health Day was celebrated for the first time in Ceylon on the 22 July 1950 [3]; World Health Day is now celebrated on the 7 April).

Introduction of Residual Spraying with DDT

Towards the end of 1945, with the conclusion of the Second World War, residual spraying of human habitations with DDT was commenced as a control measure against the malaria vector. This activity was intensified in the hyper-endemic and endemic malarial areas towards the end of 1946. A dramatic reduction in malaria morbidity and mortality was evident by 1947, along with a phenomenal reduction in general mortality, maternal mortality and infant mortality.

As the reduction in malaria morbidity and mortality continued over the subsequent years, the Department embarked on a *malaria eradication programme* in 1953. Although the number of malaria cases declined to 17 cases in 1963, by 1967 more than half a million cases were recorded signalling the failure of the eradication programme. The time-limited *eradication programme* was replaced by a long-term *control programme* in the 1970s.[8]

Independence from Colonial Rule

Sri Lanka regained independence from colonial rule on the 4 February 1948.

Due to the continuation of some of the welfare measures introduced immediately prior to independence, such as universal free education up to university level, food subsidies initiated during the war and free health services and the delivery of health care at the grass-roots level through the health unit network, Sri Lanka was able to attain a better health status than most countries in the region. It was possible to sustain the decline in the maternal mortality and infant mortality rates which started declining following spraying of DDT for controlling malaria.

The Cumpston Report and the Reorganisation of the Health Services

Dr J.H.L. Cumpston, former Director General of Health Services of the Commonwealth of Australia, who was invited to Sri Lanka to report on the working of the medical and public health organisation in Sri Lanka, submitted his report in 1949 containing recommendations on the re-organisation of the Department of Medical and Sanitary Services amongst other things. As a consequence, the Health Services Act No. 12 which provided for the reorganisation of the Department was enacted in 1952.[3] The designation of the Department of Medical and Sanitary Services was changed to that of the Department of Health Services. The head of the Department was designated the Director of Health Services; the Assistant Directors of Medical Services and Sanitary Services were re-designated Deputy Directors of Medical Services and Public Health Services respectively, and a new post of Deputy Director Laboratory Services was created.[9]

In 1954, decentralisation of the Department of Health Services began with the creation of 15 Decentralised Units each under a Superintendent of Health Services, who was responsible for the implementation of both the curative and public health programmes in the units.

Population Issues and Promotion of Family Planning

One of the concerns of government, in the 1950s, was the rapidly increasing population, a consequence of the decline in the death rate and the high birth rate, which started in the mid-forties. To contain the rapidly increasing population, the Family Planning Association (a non-governmental organisation) initiated the provision of family planning services from 1953, but government initiatives in family planning commenced only in 1958 with the establishment of a pilot project to study the prospects of introducing family planning to the general health services. Based on the experience in the project, the government decided to accept family planning as a part of the national policy. The Ministry of Health was assigned the task of providing family planning services through its MCH infrastructure. Family planning as a means for reduction of population growth proved unacceptable to certain sections of the community who attributed a sinister motive to the population activities of the government. It was only by shifting the emphasis to the benefits of family planning on maternal and child health, by integrating the Family Planning Programme with the Maternal and Child Health Programme, that success was finally achieved. A separate division designated the Maternal and Child Health Bureau, later to be re-designated the Family Health Bureau, was established in 1968 to administer the programme.[8]

There was a substantial slowing down of population growth following the introduction of family planning services– the annual population growth rate declined from 2.8 percent in the 1950s to 1.2 percent by 1993.[10] By the end of the century the population was limited to 19 million. The main reason for the decline in fertility was the increase in contraceptive use during this period, which was possible mainly through the efforts of the public health services complemented by the services provided by non-governmental organisations. Other factors that contributed to the decline in fertility were the late age of marriage and out-migration.

Eradication of Small pox and other Vaccine-preventable Diseases

One of the crowning achievements of modern international public health in the twentieth century was, undoubtedly, the eradication of small pox. The last case of small pox was reported from Somalia in October 1977 and by the end of 1979 the Global Commission for the Certification of the Eradication of Smallpox certified that smallpox had been totally eradicated.

When the intensified global programme for the eradication of smallpox commenced in 1967, Sri Lanka had already achieved eradication status. This was achieved by an intensive vaccination programme backed by legislation and effective surveillance.[8] However, the last case of smallpox reported in Sri Lanka was that of a German lady tourist, aged 23 years, who had arrived in Kandy from Kabul in Afghanistan through Pakistan in 1972. No secondary cases were reported.[11]

Sri Lanka has been able to reduce the incidence of many other vaccine-preventable diseases. Immunisation with BCG Vaccine was introduced as far back as 1949, followed by immunisation with DPT Vaccine in 1961 and Oral Polio Vaccine in 1962 in response to the major epidemic that occurred in that year. Neonatal BCG vaccination was introduced in 1969. An *Expanded Programme of Immunisation* (EPI) using these vaccines was initiated in 1978 and island-wide coverage was achieved in 1979. Measles Vaccine was also introduced in 1984 and island-wide coverage achieved in 1985. The EPI was accelerated in 1985. It was possible to declare Universal Child Immunisation in December 1989, signifying that vaccine coverage exceeded 80 percent in respect of all vaccines.

With the objective of achieving total eradication of poliomyelitis by the year 2000, Sri Lanka initiated National Immunisation Days (NIDs) in 1995 and continued NIDs for three years. However, the goal of total eradication has not been achieved, as neighbouring countries in the region were unsuccessful in their attempts to achieve eradication.[8] Sub-national Immunisation Days are now conducted annually in areas where coverage is found to be low.

The Alma Ata Declaration and the Establishment of the Primary Health Care Complexes

In 1978, the goal for the attainment of *Health for All by the Year 2000* through the Primary Health Care approach was declared at the Alma Ata Conference. Many failed to realise that Primary Health Care as enunciated by the WHO was very much part of the health strategies adopted by Sri Lanka in the development of her health system. A feature of her health policy has been an equitable distribution of health services through a well-developed public health and curative care network. Failure to realise this fact led to the introduction of a novel peripheral health care system purportedly to attain the goal of *Health for All*, through a three-tiered structure called the PHC Complex. The PHC Complex replaced the age-old Health Unit system. The post of MOH was abolished. The District Medical Officer was renamed the Divisional Health Officer (DHO) and the District Hospital was renamed the Divisional Health Centre, The functions of the MOH were assigned to the Divisional Health Officer. Central Dispensaries were renamed Sub-divisional Health Centres and the Midwife's residence and office was renamed the Gramodaya Health Centre. Thus the Public Health Services, which were up to then field-based, were effectively converted to an institution-based system. The rationale for this change was that it provided a means to develop an effective referral system for institutional care starting at the Gramodaya Health Centre and culminating at the tertiary care level. The outcome, as expected by many, was that the DHO gave priority to clinical work and failed to administer the public health services effectively. [8]

Towards the late 1980s it was finally agreed that the DHO system had failed, and the age-old Health Unit system was re-introduced.

Further Changes in Designations

In 1983, further changes in the designations of the officials of the Ministry of Health and the Decentralised Units took place with the re-designation of the Director of

Health Services as Director General of Health Services and the Deputy Directors of Health Services as Deputy Director Generals of Health Services. The Superintendents of Health Services were re-designated Regional Directors of Health Services. Assistant Directors attached to the Ministry who should have been re-designated as Assistant Directors General of Health Services were re-designated, Directors of Health Services– this brought the Regional Directors of Health Services on par with them! The Public Health Services came under the administration of the Deputy Director General Public Health Services, who was assisted by Directors responsible for Environment and Occupational Health, Maternal and Child Health, Epidemiology and Special Campaigns, Health Education and Publicity, the National Institute of Health Sciences, the Epidemiologist and the Directors of the Special Disease Control Programmes– the Anti-Malaria Campaign, the Anti-Filariasis Campaign, the Anti-Leprosy Campaign, the Anti-Venereal Diseases Campaign and the Rabies Control Programme

The devolution of powers to the Provincial Councils, which were established in 1987, did not seriously affect the health care delivery system at the divisional level. Most public health functions were already devolved to the provinces.

Appointment of Divisional Directors of Health Services

In 1992, in order to regain some of the administrative control lost to the devolved provinces, the central government appointed Divisional Secretaries to all the Administrative Districts, purportedly to deliver services to the people at the local level in direct response to their needs and implement national policies, plans, programmes and projects at divisional level. The district (regional) level administration was abolished and their function devolved to the divisional secretariats.

To meet the health needs in the division and to function on par with the Divisional Secretaries, Medical Officers of Health were appointed Divisional Directors of Health Services (DDHS). The functions performed by the Regional Directors of Health Services were to be undertaken at divisional level by the DDHS. Thus, the administration of both the curative services and the public health services was assigned to the DDHS.

Although the District administration was abolished, the health sector retained the services of the Regional Directors of Health Services by re-designating them Deputy Provincial Directors of Health Services as transfer of functions to the divisional level had to be effected gradually.

The devolution of powers to the divisional level was intended to provide a mechanism for better integration of the preventive and curative services at the divisional level. The system was expected to afford a means for better plan formulation based on the needs of the community and effective implementation and close monitoring of activities. It was expected to result in improved coordination of health related sectors and better NGO mobilisation in the division. However, the process of devolution of functions has not occurred smoothly due to the lack of trained staff and the reluctance of district level officials to devolve their functions to the divisional level staff. With the recent appointment of additional medical officers of health and the deployment of additional trained personnel, it should now be possible to transfer functions from the regional level to the divisional level.[8]

Recent Changes in the Central Administration

A Presidential Task Force appointed to formulate a National Health Policy in 1992 recommended in its report that the post of the Deputy Director General (Public Health

Services) should be replaced by the appointment of two Deputy Director General (DDG)– one for Communicable Diseases and the other for Non-communicable Diseases and Special Groups. It also recommended that Directors in charge of the following subjects should be appointed to assist the DDG Communicable Diseases: Diarrhoeal Diseases; Vector Borne Diseases and Zoonoses; Acute Respiratory Infections and Tuberculosis; Sexually Transmitted Diseases and AIDS; Environmental Health and Occupational Health; and Estate and Urban Health. Appointment of Directors in charge of the following subject areas was recommended for assisting the DDG Non-communicable Diseases: Maternal and Child Health and Family Planning (MCH and FP); School Health; Special Groups, Youth, Elderly and Disabled; Accidents, Poisoning, Addiction, Diabetes and Other Vascular Diseases; Cancer; Nutrition; Mental Health; and Oral Health. The Director Health Education and Publicity was placed under a proposed DDG Education, Training and Research and the Director Public Health Nursing Services was placed under a proposed DDG Hospitals!! [12]

The Sri Lanka Association of Community Medicine (now the College of Community Physicians of Sri Lanka) discussed the recommendation of the Task Force and recommended to the Ministry that the post of DDG Public Health Services should be retained intact and that careful consideration should be given to the nature of duties that would be performed by the large number of new Directors recommended by the Presidential Task Force. The Ministry of Health accepted the recommendations of the Association and maintained the *status quo*.

However, commencing in late 1997, new Directors were appointed under the DDG Public Health Services in the following subject areas: Nutrition; Young, Elderly, Displaced and Disabled; Estate and Urban Health; and Primary Health Care Services. This was followed, in 2000, by the appointment of an additional DDG Public Health Services, who was designated DDG Public Health Services 2.

The Directors working in the Public Health Services were assigned, somewhat arbitrarily, to work under the two DDGs as follows:

1. DDG Public Health Services 1– Directors in charge of the following subject areas: Anti-Malaria Campaign, Anti-Filariasis Campaign; Anti-Leprosy Campaign; STD/AIDS Control Programme; Rabies Control Programme; Respiratory Disease Control Programme; and Youth, Elderly, Disabled and Displaced.
2. DDG Public Health Services 2– Directors in charge of the following subject areas: MCH and FP; Health Education and Publicity; Environmental and Occupational Health; Nutrition; Primary Health Care Services.

Thus, the public health services, which functioned as an integrated entity, were bisected into two groups at central level. What repercussions this would have on the provincial and divisional levels will have to await a future evaluation. It is very likely that the delivery of public health services to the people will continue unabated through the existing well-tested, age-old Health Unit type infrastructure, which has withstood the many administrative changes that have occurred over the years.

Special Disease Control Programmes

Special Campaigns have been set up over the years for the prevention of communicable diseases of importance– malaria, filariasis, sexually transmitted diseases and AIDS, leprosy, tuberculosis and rabies. In the past they have functioned as vertical campaigns with some linkages at the divisional level with the Health Unit system. However, with the devolution of powers to the provincial councils and the subsequent establishment of a divisional level administration, many of the activities of these campaigns are being integrated with the provincial and divisional health system. The development of these specialised campaigns is dealt with in this journal by other authors.

Future Challenges

The twenty-first century will witness the emergence of new challenges to the public health services. The rapidly increasing adolescent and working populations as well as the gradually increasing elderly population will demand services to meet their special needs. The decline in the child population will afford opportunities to enhance the quality of maternal and child care. Communicable diseases will continue to require control efforts and new communicable diseases are likely to emerge. Non-communicable diseases will gain increasing importance in future years.[13]

It is likely that with little modification in the existing health care delivery system at the grass-roots level, the public health services will be able to effectively meet these challenges.

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