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**NATIONAL HEALTH
STRATEGIC MASTER PLAN
2016 - 2025**

Vol. II

Preventive Services

Ministry of Health - Sri Lanka

Message from Hon. Minister of Health, Nutrition and Indigenous Medicine

Good health is central to human happiness and well-being, and also makes an important contribution to economic progress of an individual, or a country as a whole. Sri Lanka can be proud of the success it has achieved so far in its Health Sector, through careful planning and efficient execution of programmes.

However, when I took office early last year I was dismayed to note that the then ongoing Health Sector Master Plan was to lapse in December 2015, with no new Plan in the pipe line, which made me to go ahead in developing an updated Health Policy and a Health Strategic Master Plan as a top priority. This was of prime importance to implement the developmental programmes of the government of Good Governance, which laid much emphasis on health sector development and welfare of the people.

A new Plan was necessary also due to the changing landscape of health care financing and delivery in the country due to life style changes and emerging environmental issues and accompanying health sector needs. I have no doubt that with proper planning and investment in both infrastructure and health personnel Sri Lanka has the potential to develop a health system comparable to the standards comparable to those in developed countries .

I am pleased to note that in spite of their heavy official commitments, the Director General of Health Services and the team of Ministry officials assigned for the task has come up with the Health Master Plan for the period 2016 - 2025 with in a relatively short period. I also wish to convey my sincere thanks to all the health professionals who contributed for this compilation .

Furthermore, the valuable comments/ observations / recommendations made by the professional Colleges and Associations, Provincial Ministries of Health and Health sector Trade Unions are much appreciated. I sincerely look forward to the full commitment and dedication of all the officials of the Ministry of Health as well as health officials in the Provincial Health Services to achieve the expected Health Outcomes in the Master Plan 2016-2025, with the view to improving Health care delivery to our people.

Dr Rajitha Senaratne

Minister of Health, Nutrition & Indigenous Medicine

Message from the Secretary of the Ministry of Health , Nutrition & Indigenous Medicine

Ministry of Health , Nutrition & Indigenous Medicine is responsible , to safeguard the status of Health of all citizens of Sri Lanka . Therefore a considerable amount from the national budget is allocated by the Government of Sri Lanka , to the Ministry of Health , Nutrition & Indigenous Medicine , to achieve the said objective . Thus it is our duty to utilize those public funds effectively , efficiently and economically to provide better standards of health care throughout the country

As such , it is essential to have a comprehensive Health plan with monitoring tools to make the best use of this massive budget ; and , I am much pleased to note that , the professional of the sector have made a collective and collaborative effort to produce a comprehensive Health Master Plan for ten years (2016 - 2025)

I hope the deficiencies of the previous health master plan will be corrected by the newly prepared Health Master Plan (2016 - 2025) As the proposals have been prepared by the relevant Programme Directors and the Consultants attached to those subjects , the ownership of the plan is correctly vested on the programmes itself . I feel that this is a crucial decision taken by the Ministry to establish sustainability and continuation of the Health Master Plan throughout the next ten year period .

As the indicators and the verifiable means have been identified for all proposals in the Health Master Plan 2016 - 2025 , it is essential to monitor the outcomes . A continued mechanism of Monitoring & Evaluation has to be linked to this Health Master Plan 2016 - 2025 , to achieve the expected health outcomes and justify the utilization of massive amount of public funds . Duplication to be avoided and allocative efficiency should be practiced at each step of translating strategies to activities

Finally I have to endorse that , it is the first and foremost duty of all officials in the Health sector to be adherent to this plan throughout the specified ten year period (2016 - 2025) and achieve the time targets specified in it , to offer best health services to the Sri Lankan nation

Anura Jayawickrama

Secretary

Ministry of Health , Nutrition & Indigenous Medicine

Message from the Director General of Health Services

Firstly I would like to place on record , my sincere thanks to my team of professionals , the members of National Steering Committee on Health Master Plan (all Deputy Director Generals), the Programme Directors and Consultants attached to relevant subjects , for their tireless work , (despite having to cope with tremendous work load in daily duties) which made the dream of a comprehensive ten year (2016 - 2025) Health Master Plan , a success and a reality .

As the Department of National Planning recommended , the team of professionals involved in the preparation of Health Master Plan , essentially comprised of local experts only , and the National Steering Committee on Health Master Plan , at the first meeting , decided to utilize only the Programme Directors and the Consultants attached at present to the Health Services as the experts responsible for the preparation of relevant proposals . This decision has given a great stimulus to the key officers in all Programms and I find that they have produced excellent proposals for the next ten year Health Master Plan (2016 - 2025).

I also acknowledge very specially the collaborative efforts and expert contribution made by all Professional Colleges and Associations , at my request , to make this plan to cover all specialties of Medical Sciences . Although the Preventive sector is well represented in the organogram of the Ministry of Health , the Curative and Rehabilitative sectors need developments . The proposals of Clinical Professions were able to cover the said gap in Health Master Plan , accordingly I have decided to have separate plans for each major task , (as separate plan documents for Preventive Health Services , Curative care and Rehabilitation)

This Health Master Plan (2016 - 2025) has been submitted for Public Opinion , Provincial Ministries of Health Services and Trade Unions as well . I am much thankful to all of them for sending valuable suggestions to improve services on various aspects .

At last , but not the least , the excellent coordinating of the activity and drafting of this ten year (2016 - 2025) Health Strategic Master Plan was undertaken by the focal point appointed by me for this activity . Dr D.A.B.Dangalla (Director - Policy Analysis & Development and , Acting Senior Assistant Secretary (Medical Services) functioned as the focal point , with his staff , devoted many months to accomplish the given task . I highly appreciate the degree of dedication of Dr Dangalla and his staff , towards the completion of this activity .

It is my advice to all of my officials (as we own the plan as we wrote the proposals) to adhere to the plan throughout the said ten year period and implement all strategies designed by you all , with a rigid mechanism of monitoring and evaluation of time bound targets . to make our health services comparable to Developed Countries .

Dr P. G. Mahipala

Director General of Health Services

Background

As the present Health Policy was prepared in 1996 and , now ; after 20 years it has to be replaced with an updated policy . There are many reasons justifying the preparation of a new health policy ; such as the following - Health issues which were not addressed with the present health policy , have to be tackled with new and different strategies . Newly emerged health issues have to be addressed with a new health policy . After the internal civil war , Sri Lanka can look forward to stability and increased investment in health . The country has the potential to develop a health system on par with the best in the world . But a change is needed ; to reduce inequity , to improve quality , to develop a health system which can respond to the needs and expectations of the new generation

The present health master plan was prepared in 2004 with JICA assistance and it is scheduled to be terminated at the end of 2015 Thus a new health master plan has to be prepared for the next decade starting from 2016 , and the need for a new health master plan is timely as explained below .

Some of the key subjects , which have become priority health issues in the present context , had not been included in previous JICA Health Master Plan (2005 - 2015) Eg . Renal Diseases , Estate Health , Nutrition , etc . Although the Preventive sector had been covered extensively by JICA HMP , the Curative service component had not been sufficiently addressed to the expectations of clinicians . With the demands of patients for better services , (Stroke centres , Cath Labs , Cataract Surgery , Waiting for Bypass Surgery) an extensive analysis of issues , is essential to design strategies . Certain indicators of Health have become stagnant and new approaches are required for further improvements in those sectors

Accordingly , a new health policy , a new strategic framework to develop health services ; and incorporating the new policy and strategic framework , a new Health Master Plan ; are needed for the country .

Simultaneously it is essential to design the goals and the expected Health Outcomes of this Health Master Plan .

Thus it was decided by the Ministry of Health , that the expected outcome would be a people centred health system which is sensitive to the needs and expectations of the patients / people .

The best tool to ascertain the patient factors , is the concept of universal coverage ; a conceptual model which can be summarized as (a) Equity of distribution of services to all patients living in all areas of the country (b) Accessibility to health facilities by each and every patient (c) quality of service provided to each patient , and (d) Financial Protection of all patients

The processing of Health Master Plan was initiated with the establishment of National Steering Committee on Health Policy & Master Plan . The National Steering Committee on Health Policy & Master Plan comprised of DGHS (As Chairman) and the Deputy Director Generals of the Ministry of Health . Dr D.A.B.Dangalla (Director - Policy Analysis & Development and acting Senior Assistant Secretary - Medical Services) was appointed as the secretary to NSC and to function as the focal point for the preparation of Health Master Plan 2016 - 2025 .

At the first meeting of National Steering Committee (NSC - December 2014) it was decided to appoint all programme Directors and the Consultants to prepare the proposal for the relevant programme and respective deputy director generals to function as co-chair to the working groups . Terms of Reference (TOR) for the preparation of programme profiles , were approved by the NSC . Formats for preparation of strategic framework and programme profiles were also identified at said meeting of NSC

The format for the strategic framework was designed from the Reference document titled - Shri Lanka National Health Policy - 1992 (Prof Erl Fonseka , et.al) The said document has analyzed all sub sectors of health in a uniform matrix which contained a brief situational analysis of the sub sectors , followed by several policy measures . Therefore in the preparation of this Health Master plan , the situational analysis section was attached each of the programme profiles . But in the preparation of strategic framework (2016 - 2025) the health problems were listed with strategies designed to over come the issues (Instead of listing policy measures as in 1992 , the present Strategic framework (2016 - 2025) has extended beyond , to the level of designing strategies) A new feature has also been added to link the strategies to achieve the Sustainable Development Goals (where we should be in 2030)

The format for the preparation of programme profiles (attached) has been adopted from the JICA Health Master Plan (2005 - 2015) As it was a complex document , not referred as expected by many officials during later years . To avoid similar situation occurring once again , the format was deliberately simplified to contain the essentials but made more practical and user friendly manner ; and new sections are also added to justify the

proposal eg . Situation and Problem Analysis in detail with the proposal for each programme .

A new tool has also been introduced (attached) for the Gap Analysis according to the concept of Universal Health Coverage - UHC . (to direct all proposals towards UHC) This new tool was approved by the NSC at the second meeting held in February 2015 .

At the third meeting of NSC (May 2015) it was decided to obtain external technical assistance , as there are no local experts for the following subjects (Disease Burden Studies , Elderly Care , Home based Care , Health Technology Assessment , Human Resources for Health - HRH , Health Economics and Regulating Private Health Sector) The suitable foreign experts shall have both academic qualifications (Post Graduate qualifications) and experience in employment of the relevant subject in other countries . This proposal has been approved by the Department of National Planning and forwarded to the Department of External Resources to seek foreign Technical expertise of aforementioned subjects .

At the fourth meeting of NSC (October 2015) the following areas were noted . Although the Preventive Health Services had been covered extensively by many proposals , the Curative Care sector proposals were inadequate . The said deficiency of not representing the curative care sector adequately at the Ministry level , has been a longstanding issue .(please refer to section on Reforms / Curative Division in pages 77 - 97 , in Vol IV of Health Master Plan / Health Administration & HRH) Therefore , as the Chairperson of the NSC , the Director General of Health Services invited all the Professional Colleges and Associations , to submit their proposals on Curative & Rehabilitative Services , according to the format designed to prepare programme profiles and to use the UHC gap analysis tool to identify the problems .

The responses from the Professional Associations & Colleges were encouraging ; Received the proposals from the following ;

College of Anesthesiologists of Sri Lanka

Sri Lanka College of Obstetricians & Gynecologists

Sri Lanka College of Microbiologists

Palliative Care Association of Sri Lanka

Neurosurgeons Association of Sri Lanka

College of Ophthalmologists of Sri Lanka
Sri Lanka Association of Oral & Maxillo-facial Surgeons
Sri Lanka Heart Association
College of Medical Administrators of Sri Lanka
Sri Lanka College of Pulmonologists
College of Community Physicians of Sri Lanka
Sri Lanka Association of Urological Surgeons
College of General Practitioners of Sri Lanka
Sri Lanka College of Haematologists
College of Otorhinolaryngologists and Head & Neck Surgeons of Sri Lanka
Sri Lanka College of Venereologists
Association of Plastic Surgeons of Sri Lanka
Sri Lanka College of Endocrinologists

As such the Director General of Health Services instructed the focal point to draft separate volumes of Health Master Plan for each major task area , (I) Preventive Health Services (II) Curative Care (III) Rehabilitative Care (IV) Health Administration & HRH .Many stakeholder meetings were held to prepare proposals , the manuscripts of proposals of each programme were prepared by the respective Programme Director and the Consultants attached to the relevant programme , under the guidance of the respective Deputy Director Generals . For the Preventive Sector , an additional group of Consultant Community Physicians were invited (including Professors in Community Medicine and Provincial Consultant Community Physicians) The final draft of all five documents of Health strategic Master Plan (1 / Strategic Framework for Health Development , 2 / Vol I - HSMP Preventive Health Services , 3 / Vol II - HSMP Curative Care , 4 / Vol - III Rehabilitation Care , 5 / Vol - IV Health Administration & HRH) was prepared by the Director - Policy Analysis & Development (the focal point for preparation of Health Master Plan) with the assistance of the staff of PA & D unit

As an additional procedure to cover the minor specialties , the staff of Policy Analysis & development unit , consulted the senior medical specialists

of certain specialties to obtain proposals of those minor specialties . eg Medical Genetics , Stokes & Trauma care , Care of Abused Children , Plastic Surgery , Autism , etc

Several Field Studies have been conducted by the staff of the Policy Analysis & Development unit with regard to situational analysis of certain subject areas (a) Health Services of Plantation Estates , (b) CKDu affected communities in Districts of Anuradhapura and Polonnaruwa , Divisions of Thanamalwila , Sooriyawewa , Buttala , Angunakolapelessa , Sewanagala , Embilipitiya , and Thissamaharamaya (c) Primary Level Curative Services – Divisional Hospitals and Primary Medical Care units - the need for restructuring (d) under utilization of Healthy Life style clinics - application of management concepts to improve screening (e) study to identify the issues related to management and availability of medicinal drugs at district level .

Further the data available at the Medical Statistics unit and also the data bases of the individual programmes had been analyzed prior to the formulation of proposals . However most of the analyzed data are presented in the Annual Health Bulletin (AHB) and also in the annual progress reports of each programme , As such data analysis is not presented in this document (to avoid duplication) In the previous Health Master Plan , maps & charts had been presented as a separate document ; but it is not required to attach a similar document to this new Health Master Plan because those items are already available with AHB and annual progress reports of individual programmes .

The previous Health Master Plan had a separate volume to describe the situational Analysis , but its linkage to programme profiles published in another document was not evident . To avoid this type of deficiencies , the new Health Master plan has incorporated the situational analysis in to the main text of programme profile (with indication of references to relevant research publications)

The final draft was submitted to the Department of National Planning , Ministry of National Policies & Economic Affairs , to Provincial Ministries of Health in all nine Provincial Councils (Northern , North Western , North Central , Eastern , Central , Uva . Western , Southern & Sabaragamuwa Provincial Councils) and also to the Trade Unions of the Health Services . Further the Health Strategic Master Plan (2016 - 2025) has been published in the website of the Ministry of Health and advertized in print media of all three languages inviting Public Opinion ; and the relevant comments , suggestions , and recommendations received through the said process have been incorporated to the plan .

The excellent leadership and the technical guidance given by Dr P.G.Mahipala - the Director General of Health Services , was the key factor in completion of this massive task . For the previous Health Master Plan , it is said that JICA had to spent Rs 225 Million , and a foreign company by the name of Pacific International was assigned the preparation of previous Health Master Plan with the contribution of a group of local experts . But the new plan , the National Health Strategic Master Plan 2016 - 2025 was prepared with a cost less than Rupees one million (Funded by the Government of Sri Lanka) The main reason for the production of the new plan at a much lower cost is the dedication of Sri Lankan Experts . The number of Consultants involved in the preparation of this plan was well above hundred and they offered their services voluntarily and without any additional cost to the government . The Policy Analysis & Development unit would like to place its great appreciation to all of those consultants who offered assistance to prepare the HSMP 2016 - 2025 . It has been said that - Doctors are the voice of the poor , the sick and the dead . This statement has been once again proven by the said team of consultants ; by preparing a master plan for the next ten years to grant better health outcomes to the Sri Lanka nation .

= focal point

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Program Title	Family Health Programme
Focal Point	Director / Maternal & Child Health Family Health Bureau
Background	<p>Maternal and child health programme has a very long history, which dates back to the early 20th century. An organised effort to provide maternal and child health services commenced with the introduction of the Health Unit System in the mid 1920's, which was thereafter extended to cover the entire country. In 1965, family planning (FP) was accepted as a part of national health policy and its service components integrated with the (Maternal and Child Health (MCH) services of the Ministry of Health. In 1968, the MCH Bureau was established within the Ministry of Health, to oversee the MCH/FP services island wide. The MCH Bureau was re-designated as the Family Health Bureau (FHB) to highlight the integrated nature of the MCH/FP services, and became the central organization responsible for planning, coordination, monitoring and evaluation of the MCH/FP services, also referred to the Family Health Programme.</p> <p>The presence of a well-organized service delivery system via Medical Officers of Health (MOH) and field workers, continuous enhancement of knowledge and skills of health staff and monitoring and feed-back at each level (national, district, divisional and local levels) lead to great achievements in mortality and nutrition related indicators in terms of MCH. During the past few decades Sri Lanka's maternal mortality ratio has made a significant decline from 1650 per 100,000 live births in 1946 to the current level of 32 per 100,000 live births (2014). Child births within health facilities have become an established practice (99.9%). In spite of all these achievements, quality service delivery continues to remain a major challenge. Significant differences in quality of care are also observed according to socio economic groups and geographic areas. Furthermore, anaemia is a common problem among pregnant mothers (17%). maternal under nutrition together with a high incidence of anaemia has resulted the high prevalence of low birth weight babies (16.2%).</p> <p>Therefore, interventions are needed to improve the quality of antenatal care. Reduce the prevalence of anaemia among pregnant mothers, achievement of adequate weight gain during</p>

	<p>pregnancy and sustainable supply of micronutrients are some of the major concerns in the present situation in order to improve the quality of maternal care. It is a felt need to introduce new strategies on improving the antenatal and post natal services.</p> <p>Introduction of referral system, surveillance system on maternal morbidity and sensitize the communities on male participation on family health is another important component. Women's right to life and health is also an important issue that will enhance the quality of maternal health services.</p> <p>Sri Lanka has already achieved replacement level fertility. However, it is estimated that it would take at least another 30 years to reach zero growth rate due to the presence of a large number of females in the reproductive age groups. Therefore, it is important to sustain an effective family planning programme throughout the country.</p> <p>The success of the family planning program has been the main factor behind the current fertility pattern. Providing family planning counseling in their homes by Public Health Midwives (PHM) and providing continuous supplies of contraceptive commodities free of charge to fertile couples has been the main pillars of success. Thus, training of PHMs in family planning methods and counseling has been proven to be effective interventions. These activities have to be continued to sustain an effective family planning programme not only to control population growth but also to reduce unwanted pregnancies and induced abortions. Further it is very important to ensure the continuous supply of contraceptive commodities to the growing number of fertile couples. In addition, needs of sub-fertile couples (around 10%) too have to be addressed and services need to be established.</p> <p>Though, infant mortality and neonatal mortality in Sri Lanka declined dramatically in the last century, a significant geographical variation is observed. Hence determinants need to be selectively identified and effectively addressed. Given the country's relatively low infant mortality, the reduction of child malnutrition is yet to be achieved with one out of five children aged five and below being underweight (21.1%). There is a need to actively promote nutrition education and counseling to mothers and adolescent girls. Growth monitoring and promotion have been in progress for many years, but the desired impact is still not visible. There is also a need to strengthen psychosocial development of child with specific inputs in the age groups 0-3 years and 3-5 years. Among the other challenges are those to</p>
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keep age appropriate immunization of infants and children at optimum levels all the time and to promote good oral health.

The school population in Sri Lanka consists of about 4.2 million children of the age group of 5-18yrs. Of this, about 60% belong to the adolescent age group of 10-18 yrs. The goal of the schoolhealth programme is to ensure that children are healthy, capable of promoting their own health and health of the family and the community and are able to optimally benefit from the educational opportunities provided. This includes opportunities provided to obtain correct information and develop life skills to prevent reproductive health problems including teenage pregnancy, HIV/AIDS, nutritional problems, substance abuse, stress, violence & suicide which are the common problems among these children.

Provision of school health services leads to detection of health problems and correction, referral of needy children to specialist clinics and follows up, immunization, school dental services & counseling services for reproductive health problems. By providing a healthy school environment and life skills based health education, behavioral changes which are necessary to improve the health of the school child can be achieved. Also the burden caused by most of the prevailing health problems in the country including the non-communicable diseases could be addressed in a cost effective manner through this. Community participation for this has to be developed for mobilization of resources. These services are delivered by the Medical Officers of Health & their staff at the Primary Health Care level. Furthermore, in some urban areas there are designated School Medical Officers to deliver these services. Since the health of the school child is a shared responsibility of the Ministries of Health & Education, a close collaboration is maintained between the two sectors.

Since the establishment of the Family Health Bureau in the late 1960's, a separate section was developed as 'Evaluation and Research Unit' to undertake monitoring and evaluation of the MCH/FP programme. A series of returns, records and registers were developed to collect information on MCH/FP activities right from the Public Health Midwife areas through the health information system. A computerized database was developed for MCH/FP information as early as 1979.

Since 1980's a well-established Management Information System (MIS) is existent in Sri Lanka. This system provides vital information on service delivery of Maternal & child health and family planning in all the districts of the country. It yields data on

	<p>outcome and impact indicators, which are being used by the national and international agencies in setting targets, developing policies and strategies and also selecting priorities for donor assistance. The information derived from the system is used by divisional/ district & provincial supervisors and programme managers to uplift the service delivery in deficient areas.</p>	
GAP ANALYSIS by using UHC tool	Attached separately	
Target areas and beneficiaries	Target areas	Beneficiaries
	1. Maternal health	Mothers and new born children with special attention to vulnerable populations such as urban slums, areas with high NNMR and MMR.
	2. Child health (includes newborns)	Children aged 5 years and under including newborns, children with special needs, living in urban slums, conflict areas, institutions, rural remote areas, street children and those in the estate sector.
	3. Family planning	Persons (individuals/ couples) in need of family planning services
	4. School Health, Health of adolescent and Youth	5 – 18 year old children in schools, out of school adolescents and youth
	5. Management information system on Reproductive Health (RH-MIS)	Health staff involved in MCH /FP programme at periphery Supervisory and programme managers working at divisional, district, provincial and national level
Justification	<p>Family Health Bureau delivers preventive and promotive health services for mothers and children. The need to increase quality of maternal health services in order to improve health status of mothers and thus reach millennium development goals. Changing demographics, changing fertility, changing role of women in society affect adaptation of delivery methods and addition of new services. Sri Lanka has a well-developed information system and FHB is the focal point of surveillance and evaluation of maternal health services. It has revealed that there are some deficiencies in ANC and delivery care, and nutrition education as well as in coverage of working poor, language minorities and remote communities. The Medical Officers of health need to reorient their role to community care and community dialogue and</p>	

	<p>mobilisation. The outreach workers (PHM) need to be retrained to be able to deliver more intensive nutrition education, new services in ANC and children</p> <p>Newborn care is of the utmost importance and needs much improvement and planning for high quality services that would ensure availability and accessibility to such services in all parts of the country. As home deliveries got shifted to hospitals invariably neonatal care was also initiated in hospitals with reasonable facilities for appropriate care. However, there has not been as much specific focus on the neonate, and sophisticated facilities or standard procedures are not available to manage high risk neonates. It is crucial for a country like Sri Lanka to ensure quality survival of all neonates in order to reduce any future burden on the country. Maternal and neonatal health should have close linkages as maternal factors influence fetal and neonatal outcomes.</p> <p>The success of the current family planning programme can be attributed to many factors namely the high literacy rate among women, gender empowerment, female's age at marriage and the widespread network of facilities providing family planning services.</p> <p>However, the need to focus on Family Planning services has become more important than never before. The demographic transition shows that there are a growing proportion of females in the reproductively active age group. Further, some studies show that there are over 650 abortions taking place each day and also according to the hospital statistics a significant number of women seek care following septic abortions. Of these septic abortions a significant proportion leads to maternal deaths.</p> <p>In addition, with the threat of increasing spread of HIV/AIDS along with other sexually transmitted diseases the need to promote condoms for dual protection has become very important as well. Equitable distribution of quality Family Planning services in the entire country is essential to enhance reproductive health of women and men.</p> <p>The school population in Sri Lanka consists of 4.2 million school children. Almost 60% of them belong to the adolescent age group of 10-18 years. The adolescent children are in the period of transition from childhood to adulthood. Therefore these children have health problems specific to their age group. They are a high risk group for nutritional problems such as Iron deficiency anemia and other nutritional deficiencies. A survey done by MRI in year 2002 has revealed that 13.1 – 20% of the adolescent children are anemic, 8.6 – 26.2 % are stunted and 10.4 – 22% are wasted. The same survey has shown that 5-10% of the urban children are over-weight and about 30% of children attend school without having breakfast. These nutritional problems unless addressed during the adolescent period will result in malnourished mothers and low birth weight infants and a high incidence of non-communicable diseases in the future generation. Other important</p>
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	<p>problems of this age group include tobacco and alcohol abuse, drug abuse, violence, stress related illnesses, suicide, teenage pregnancies, abortions and other reproductive health problems such as HIV AIDS. In addition to these there are other problems that could be corrected if early action is taken such as dental problems , eye problems and problems relate to ear, nose, throat etc.</p> <p>Thus it appears that health promotion of these children in schools is very essential to reduce maternal mortality, infant mortality, non-communicable diseases and other problems related to stress such as suicides. These could be effectively addressed through the school health programme in order to enable early detection and correction .Some of the very important activities that should take place for these children in the schools through this programme are correction of health problems, development of life skills and life skills based health education, healthy school environment and community involvement. Correction of nutritional deficiencies including anaemia, visual & hearing problems and other health problems through this programme will have direct impact on educational achievements of children. Screening of school children to detect health problems & correcting them is one of the very important activities of the School Health Programme in order to make them achieve their full educational potential. The capacity of the teachers needs to be developed to involve them in establishing an environment conducive to health promotion in their schools. Child care practices & the knowledge of the problems faced by their children & the measures that should be adopted by them should also be addressed through the School Health Programme.</p> <p>Continuous monitoring and evaluation of MCH/ FP programme is important to achieve a reduction in maternal and childhood morbidity and mortality. Therefore, Management Information system presently being implemented needs to be strengthened in order to achieve the above. A web based reproductive health management information system (eRH-MIS) is needed for timely and accurate data collection, analysis and dissemination. The contents and forms in the present information system need to be reviewed time to time according to the needs. Health personnel should be trained on handling of data, management of information, supervision, monitoring and evaluation in order to improve the quality of data and use of information in programme management.</p>
<p>Important Assumptions/Risks/Conditions</p>	<p>The PHM need to have newly designed populations to be able to carry out the new tasks. Human resources and field Logistics need to be improved for MOH an PHM especially in rural and remote areas so that remote areas are covered and working schedules and facilities need to be adapted to assure access to working mothers. Monitoring and Evaluation need to become a regular duty of MOH and substantial supervisory reports need to be used for quality assurance.</p> <p>Continuous Government and Community commitment / other INGO and UNFPA funding for the national FP programme will be decreased as Sri Lanka is</p>

	<p>now placed in category C.</p> <p>Ministry of Education, Ministry of Health, Provincial Ministries and Departments of Health and Education are responsible & accountable for school health programme. It is assumed that all existing vacancies of health staff involved in school health activities should be filled. Transport should be provided to staff involved in school health activities and the large MOH and PHI areas should be re-demarcated</p> <p>The health staff should be in place according to the approved cadre positions. The printed forms required for implementation should be available in required quantities. Logistics system should be streamlined in distribution of forms and other supplies</p>
Vision	A Sri Lankan nation that has optimized the quality of life and health potential of all women, children and their families
Mission	To contribute to the attainment of highest possible levels of health of all women, children and families through provision of comprehensive, sustainable, equitable and quality Maternal and Child Health services in a supportive, culturally acceptable and family friendly settings.
Goals	<ul style="list-style-type: none"> A. Promote health of women and their partners to enter pregnancy in optimal health, and to maintain it throughout the life course. B. Ensure a safe outcome for both mother and newborn through provision of quality care during pregnancy, delivery and post partum period. C. Ensure reduction of perinatal and neonatal morbidity and mortality through provision of quality care. D. Enable all infants and preschool children to survive and reach their full potential for growth and development through provision of optimal care. E. Ensure that children (5 to 9 years) and adolescents (10 – 19 years) realize their full potential in growth and development in a conducive and resourceful physical and psychosocial environment. F. Enable marginalized children and those with special needs to optimally develop their mental, physical and social capacities to function as productive members of society. G. Enable all couples to have a desired number of children with optimal spacing whilst preventing unintended pregnancies H. To promote reproductive health of men and women assuring gender equity and equality. I. Ensure that National, Provincial, District and Divisional level managers are responsive and accountable for provision of high quality MCH

	<p>services.</p> <p>J. Ensure effective monitoring and evaluation for MCH programmes that would generate quality information to support decision making.</p> <p>K. Promote research to increase evidence base and its use in policy formulation and in interventions to improve MCH care.</p> <p>L. Ensure sustainable conducive behaviours among individuals, families and communities in support of Maternal & Child Health.</p>	
<p>Programme Objectives</p> <p>(Please prepare separate indicators for each objective)</p> <p>1. Maternal Health To improve service delivery for pregnant mothers in order to improve their health and wellbeing at an affordable cost, with special focus on the vulnerable and privileged.</p> <p>2. Newborn Health To ensure reduction of perinatal and neonatal morbidity and mortality through provision of quality care</p> <p>3. Child Health To improve the service delivery for children aged five years and</p>	<p>Indicators</p> <ul style="list-style-type: none"> ■ Maternal Mortality ratio and Morbidity Rate ■ Perinatal Mortality Rate ■ Neonatal Mortality Rate ■ Post neonatal mortality ■ Antenatal, post natal coverage ■ % of mothers with BMI <18.5 at 12 months of pregnancy ■ % of mothers with anemia ■ Weight gain of mother from 3rd to 9th month of pregnancy ■ % of new cases of hypertension and diabetes, referred by and to PHM <ul style="list-style-type: none"> ■ Perinatal mortality rate ■ Neonatal mortality rate ■ Post neonatal mortality rate <ul style="list-style-type: none"> ■ Perinatal mortality rate ■ Neonatal mortality rate ■ Post neonatal mortality rate 	<p>Means of Verification</p> <ul style="list-style-type: none"> ■ MIS, Special studies ■ Vital Registration ■ M.M. Review at FHB ■ Assessment of quality of care of MD review ■ Surveys ■ H830 Return <ul style="list-style-type: none"> ■ Vital registration ■ Hospital ward data ■ Medical Information System (MIS) <ul style="list-style-type: none"> ■ Vital registration ■ Hospital ward data

<p>under aimed at improving their health and well-being by providing quality services at an affordable cost, focusing on all with special attention to the least privileged.</p> <p>4. Family Planning To maintain replacement level fertility by ensuring, at least 72% of fertile couples are practicing an effective contraceptive method based on independent and informed choice.</p> <p>5. School health and Health of Adolescents and Youth</p> <p>5.1 To ensure that all school children are healthy, capable of promoting their own health and health of the family & community, and are able to optimally benefit from educational opportunities provided.</p>	<ul style="list-style-type: none"> ■ 1-4y mortality rate ■ % of children with low wt/age, % of children with low wt/ht, % of children with low ht/age ■ Immunization coverage ■ Anemia of children under 5 ■ % of caregivers providing home-based psychosocial stimulation to children under five ■ Proportion of MOH areas implementing the Early Childhood Care and Development (ECCD) programme ■ Proportion of mothers who are aware about home based ECCD ■ Total CPR (%) ■ Prevalence of modern method users (%) ■ TFR ■ Rate of abortions ■ Unmet need (%) ■ Proportion of schools where school medical inspection done ■ No. of life skill based health education programme conducted ■ Percentage reduction in anemia among adolescent school children ■ Percentage of health promoting schools /school health clubs established ■ No. of programmes developed to inculcate social responsibility ■ No. of Youth Friendly Health Services (YFHS) centres established 	<ul style="list-style-type: none"> ■ Medical Information System (MIS) ■ Growth surveillance ■ EPI records ■ Periodic surveys <p>MIS</p> <ul style="list-style-type: none"> ■ DHS survey ■ MIS (FHB) Community <ul style="list-style-type: none"> ■ Quarterly school health return H 797 ■ Surveys
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<p>5.2 To ensure access to youth & adolescent friendly services</p> <p>6. Reproductive health Management Information System (RH-MIS)</p> <p>To strengthen the implementation of MCH/FP Management Information System at all levels thereby improving monitoring and evaluation of MCH/FP services and supervision with a view to enhancing coverage and quality of RH service delivery</p>	<ul style="list-style-type: none"> ■ Percentage of returns submitted in time ■ Percentage of supervisions carried out ■ Quality indicators on MCH/FP ■ No. of self evaluatory tools developed ■ No. of review meetings conducted 	<ul style="list-style-type: none"> ■ FHB Evaluation unit records MIS forms - Form C ■ Special surveys/ reports ■ Special reports Progress reports/ minutes of meetings
<p>Output (Please prepare separate indicators for each output)</p>	<p>Indicators</p>	<p>Means of Verification</p>
<p>1. Maternal Health</p>		
<p>1.1 Policies on maternal care services established</p>	<ul style="list-style-type: none"> ■ Existence of policies on maternal care services 	<ul style="list-style-type: none"> ■ Availability of Policy documents on maternal care
<p>1.2. Quality of antenatal services in terms of service provision, health promotion and accessibility of services at domiciliary and field care improved</p>	<ul style="list-style-type: none"> ■ Guideline and indicators are established to assess the quality 	<ul style="list-style-type: none"> ■ Reports by MOH areas

<p>1.3. A system to screen eligible couples established so that the medical conditions that could complicate pregnancy could be diagnosed (preconception clinic established) (Hypertension, Heart Disease and Diabetes)</p>	<ul style="list-style-type: none"> ■ Availability of guidelines on screening and management ■ % of new cases of hypertension and diabetes, referred by and to PHM 	<ul style="list-style-type: none"> ■ Reports by MOH areas through eligible couple register
<p>1.4. A programme established to improve the nutritional status of pregnant mothers and to reduce the prevalence of anemia among pregnant women and protein energy mal nutrition and there by reduction of LBW established</p>	<ul style="list-style-type: none"> ■ No of completed community education programmes on nutrition . ■ % of clinics having facility for HB testing ■ % of outlets with stocks ■ Percentage of pregnant mothers weight gain is adequate 	<ul style="list-style-type: none"> ■ Stock return from RMSD and RMSD ■ Special surveys
<p>1.5. A surveillance system to monitor ante natal & post natal morbidities established</p>	<ul style="list-style-type: none"> ■ Existence of a surveillance system ■ on maternal morbidity ■ Proportion of MOH areas on morbidity 	<ul style="list-style-type: none"> ■ Reports by MOH/PHM
<p>1.6. Quality of postnatal care improved</p>	<ul style="list-style-type: none"> ■ Availability of guideline ■ and indicators to assess quality 	<ul style="list-style-type: none"> ■ Routine MIS
<p>1.7. A capacity building programme implemented for programme planners at central level and district level on planning and evaluation on MCH Programme and for service providers</p>	<ul style="list-style-type: none"> ■ Percentage of staff who are competent on planning and evaluation on maternal care 	<ul style="list-style-type: none"> ■ FHB Reports
<p>1.8. Positive health seeking behaviour of community in relation to maternal health enhanced .Antenatal group education programme at field level established</p>	<ul style="list-style-type: none"> ■ No of community awareness programmes completed ■ Percentage of mothers who are aware about danger signals on maternal care ■ No of IEC materials produced 	<ul style="list-style-type: none"> ■ Periodic surveys. ■ FHB reports

1.9. Male participation in maternal care programme Improved	<ul style="list-style-type: none"> ■ Proportion of males who participated in community health activities in relation to maternal health. ■ Proportion of males who accompanied their wives at ANC ■ No of health education programmes conducted for males at divisional level 	<ul style="list-style-type: none"> ■ Report from MOH ■ Periodical surveys
1.10. Referral system established in order to address the bypass phenomena in maternal care	<ul style="list-style-type: none"> ■ No of hospitals practising referral system. ■ Proportion of mothers who bypass the primary/ secondary care institution 	<ul style="list-style-type: none"> ■ Reports from hospitals
1.11. Home deliveries in underserved and special communities reduced	<ul style="list-style-type: none"> ■ Existing of guideline to reduce home deliveries. ■ % of reduction of home deliverers in under served and special communities 	<ul style="list-style-type: none"> ■ MIS
1.12. Laws to protect the rights in relation to maternal care are in placed	<ul style="list-style-type: none"> ■ Establishment of a system on protection of human right in maternal health. 	<ul style="list-style-type: none"> ■ Reports from Ministry of labour
1.13. The existing system of maternal care service delivery and strategies reformed	<ul style="list-style-type: none"> ■ Availability of new strategies for service delivery 	<ul style="list-style-type: none"> ■ Reports from Ministry
1.14. Cross cutting issues such as MCH management, mobility of health workers and work load of health workers are addressed	<ul style="list-style-type: none"> ■ Work load of PHMM was assessed. ■ Availability of duty list of PHM. ■ Crosscutting issues that were identified were dealt 	<ul style="list-style-type: none"> ■ Report from Ministry of Health
1.15. Confidential enquiry on maternal death investigation established	<ul style="list-style-type: none"> ■ Report on CEMD is available every 3 yrs 	<ul style="list-style-type: none"> ■ Reports
2. Newborn Health		
2.1. policy guidance and direction to the Newborn Care programme developed	<ul style="list-style-type: none"> ■ National policy on MCH/FP including all the components of the newborn health available ■ Maternal and Newborn health strategic plan available for 2017 - 2021 ■ Every Newborn Action Plan available 	<ul style="list-style-type: none"> ■ Policy documents at Ministry of Health and FHB
2.2. Ensure availability of uniform, updated evidence based technical guidance and direction to improve neonatal care	<ul style="list-style-type: none"> ■ Circulars, guidelines and protocols updated once in two years 	<ul style="list-style-type: none"> ■ Availability of updated circulars, guidelines and protocols

2.3. Ensure Implementation of a comprehensive quality assurance system for newborn care	<ul style="list-style-type: none"> ■ Availability of finalized quality assessment tools for Newborn Care ■ Availability of a training module for care of NB in field setting ■ Availability of staff trained in internal /external assessment of quality 	<ul style="list-style-type: none"> ■ quality assessment tools for Newborn Care available ■ training module for care of NB in field setting ■ training reports
2.4. The neonatal information system strengthened	<ul style="list-style-type: none"> ■ % of hospitals sending neonatal information through eIMMR 	<ul style="list-style-type: none"> ■ MIS
2.5. Quality of services for high risk newborns improved by developing and implementation of standards, guidelines and protocols for high risk newborn care	<ul style="list-style-type: none"> ■ Availability standards, guidelines and protocols for high risk newborn care ■ % of institutions following high risk newborn care standards/ guidelines/ protocols ■ % of neonatal and infant deaths due to high risk conditions 	<ul style="list-style-type: none"> ■ Availability of documents ■ Survey ■ MIS
2.6. Knowledge, skills and competencies of health staff on essential and advanced newborn care improved	<ul style="list-style-type: none"> ■ % of staff trained in institutions providing maternity care with ENC ■ % of staff in the institutions practicing proper hand washing ■ % of institutions practicing the new concepts of ENC ■ % of field staff trained in essential/routine newborn care in the domiciliary setting ■ % of field staff trained in domiciliary care of the newborns who are discharged following special/intensive care ■ % of staff in NICU and SCBU trained regularly on NALS ■ % Neonatal deaths due to asphyxia ■ % Neonatal admissions to NICU and SCBU due to asphyxia ■ % of health staff has skills to resuscitate newborns ■ % of institutions that conduct regular drills on NALS ■ No. of basic medical and related course incorporated with new concepts of newborn care 	<ul style="list-style-type: none"> ■ Technical reports of training programmes ■ Survey
2.7. Infrastructure for provision of basic and advanced newborn care strengthened	<ul style="list-style-type: none"> ■ % of institutions with standard facilities in the newborn corners ■ % of institutions with standard facilities in neonatal stabilization units ■ % of specialized institutions with standard facilities in the SCBU/NICU ■ No. of districts that have at least one neonatal intensive care unit 	

	<ul style="list-style-type: none"> ■ % of specialized institutions with standard facilities in the Mother Baby Centers ■ % of specialized institutions with standard facilities in the Lactation Management Centers ■ No of provinces with a functioning referral system ■ % of institutions in which needs assessment is conducted annually 	
2.8. Effective implementation of the Baby Friendly Hospital Initiative ensured	<ul style="list-style-type: none"> ■ % of staff trained in the 20hr revised course on BFHI ■ No of institutions accredited as BFHI ■ Regular meetings of the BFHI implementing committee held ■ Regular conduction of monitoring committee meetings (once in two month) ■ No. Of violations reported ■ % of reported violations to which action is taken ■ Indicators on BFI included in eIMMR and RH-MIS 	<ul style="list-style-type: none"> ■ RH MIS ■ IMMR ■ MoH reports
2.9. Availability & accessibility to basic and advanced newborn care ensured.	<ul style="list-style-type: none"> ■ No of hospitals initiate NB screening established (for congenital hypothyroidism , critical congenital heart diseases, and congenital deafness) out of planned ■ No of staff trained in NB specialized programmes 	<ul style="list-style-type: none"> ■ MIS ■ Surveys ■ Training reports
3.Child Health		
3.1. Policies and guidelines on Child Health developed	<ul style="list-style-type: none"> ■ Availability of child health policies and guidelines 	<ul style="list-style-type: none"> ■ Policy document at Ministry of Health ■ Guidelines available at FHB
3.2. Nutritional status of children under five years of age improved	<ul style="list-style-type: none"> ■ % of children under five with low Wt/Ht, % of children under five with low Ht/Age, % of children under five with low Wt/Age ■ Prevalence of anemia among under 5. Prevalence of Vitamin A deficiency among preschool children. 	<ul style="list-style-type: none"> ■ Medical Information System Data from periodic surveys DHS data
3.3. Home based Early Childhood Care and Development (ECCD) established in all MOH areas	<ul style="list-style-type: none"> ■ Proportion of under five children receiving home based Psychosocial stimulation ■ Proportion of MOH areas implementing the ECCD programme ■ Proportion of mothers who are aware about home based ECCD 	<ul style="list-style-type: none"> ■ MIS ■ Special surveys

3.4. A referral system linked to the ECCD programme established for identification and referral of children with problems.	<ul style="list-style-type: none"> ■ % of MOH areas with a functioning referral system 	<ul style="list-style-type: none"> ■ Special formats/MIS
3.5. Services to children with special needs provided	<ul style="list-style-type: none"> ■ Proportion of districts with a system to identify children with developmental delays No. of trained personnel available per district 	<ul style="list-style-type: none"> ■ Information from DPDHS office
3.6. All reported infant and child (1-4) deaths investigated	<ul style="list-style-type: none"> ■ Proportion of infant and child deaths investigated ■ Availability of feto-infant mortality surveillance 	<ul style="list-style-type: none"> ■ Evaluation formats used ■ MIS
3.7. Surveillance system established to report morbidity conditions of under five children	<ul style="list-style-type: none"> ■ No. of surveillance sites established. ■ Proportion of sites reporting data 	<ul style="list-style-type: none"> ■ Special information systems
3.8. Communities empowered to identify their health needs and communicate their needs to Medical Officer of Health	<ul style="list-style-type: none"> ■ No. of community groups formed per PHM per districts Proportion of community groups involved in identifying their health needs ■ % of MOHs with satisfactory communication with community groups 	<ul style="list-style-type: none"> ■ Information using special formats
4. Family Planning		
4.1. Availability of contraceptive commodities at all FP service outlets (hospitals and field clinics)	<ul style="list-style-type: none"> ■ % of FP clinics providing at least 4 contraceptive methods (e.g. Pills, condoms, DMPA, IUD) 	<ul style="list-style-type: none"> ■ Monthly stock returns ■ H1200 monthly return ■ Special surveys ■ District FP reviews
4.2. Availability of sterilization services at all major hospitals	<ul style="list-style-type: none"> ■ Number of institutions offering sterilization services on a regular basis. 	<ul style="list-style-type: none"> ■ H1200 monthly return ■ District FP reviews
4.3. Service providers trained in family planning, counseling & related areas	<ul style="list-style-type: none"> ■ No of training programmes carried out at central and district level. ■ No of persons trained 	<ul style="list-style-type: none"> ■ Monthly work performance returns
4.4. Availability of IEC material on family planning for service providers and users	<ul style="list-style-type: none"> ■ Types of IEC material available for providers ■ Types of IEC material available for users 	<ul style="list-style-type: none"> ■ Annual work performance report ■ Audit ■ Special surveys

4.5. Availability of services for management of sub fertility at community & institutional levels	■ No. of institutions carrying out services for sub fertile couples	■ Availability of guidelines ■ No. of clients successfully treated
4.6. Operations research focused on improving the family planning programme	■ No. of research carried out	■ Research reports
5. School health and Health of Adolescents and Youth		
5.1. School health policy including a policy for human resources for health & education sectors developed	■ School health policy is developed	■ Availability of policy document
5.2. National Coordinating Committee established	■ National Coordinating Committee established & quarterly meetings held	■ Minutes of the meeting
5.3. Partnership between Health & Education Sectors strengthened	■ No. of meetings held with the participation of all relevant sectors	■ Minutes of the meeting
5.4. A group of master trainers for school health available at district level	Percentage of districts having a group of master training	■ Report from MO.MCH
5.5. Capacity of the central focal point and district level staff developed on school & adolescent health	■ Two officers from the centre trained overseas	■ Data from FHB.
5.6. Capacity of health & education personnel at central & district level developed	■ Availability of protocols & guidelines with the relevant health and education staff	■ Reports from MO/MCH and ■ Zonal Directors of Education
5.7. A conducive School environment established	■ Proportion of schools having ■ Conducive school environment	■ H 797 Quarterly School ■ Health Return
5.8. School children developed necessary knowledge & life skills for reduction of risk behaviour	■ Proportion of children receiving life skill based health education programme	■ Reports from MOH ■ KAP survey ■ Quarterly School Health H- 797

5.9. Correctable health problems detected & corrected	■ Proportion of defects corrected	■ Quarterly School Health H-797
5.10. Nutritional status of school children improved.	■ Proportion of children stunted, wasted & over weight	■ Quarterly School Health ■ Return H 797
5.11. Counseling facilities accessible to all children	■ Proportion of schools having counseling services	■ Quarterly School Health Return H 797
5.12. School Dental services made accessible to all school children	■ Percentage of schools having access to dental care facilities and services	■ Report of SDT
5.13. Supply of essential equipment & other supplies made available to all relevant staff	■ Proportion of HCWs having necessary equipment	■ Report from MO.MCH
5.14. All human resources necessary for school health programme made available	■ No.of vacancies in all categories at all levels	■ Report from MO.MCH
5.15. Implementation of programmes to promote healthy life style.	■ Proportion of schools having nutritional programmes and programmes to improve physical activity	■ Reports and returns
5.16. Implementation of programmes to promote social responsibility	■ No. of clubs for extra curricular activities in operation	■ Programme reports
5.17. Appointment of additional MOOH for school health	■ Proportion of MOH areas having an additional MOH	■ Report from MO.MCH
5.18. Needs of school children including adolescent identified	■ Number of Operational research carried out	■ Report of the researchers.
5.19. Appropriate IEC materials developed and made available	■ Proportion of health/ education staff having IEC materials	■ Report from MOH
5.20. Supervision, monitoring & evaluation carried out	■ Proportion of Quarterly review meetings conducted at District level	■ Minutes of the meetings & ■ Surveys
5.21. Transport facilities provided to health staff	■ Proportion of health staff with appropriate transport facilities	■ Report from MO(MCH)
5.22. Advocacy on adolescent and youth health	■ No. of meetings conducted	■ Minutes of the meetings

5.23. Capacity building of health staff on adolescent friendly health services	<ul style="list-style-type: none"> ■ No. of health staff trained out of planned 	<ul style="list-style-type: none"> ■ Surveys
6. Reproductive health Management Information System (RH-MIS)		
6.1. Revised Information system which is more user friendly in place	<ul style="list-style-type: none"> ■ No. of returns and records revised 	<ul style="list-style-type: none"> ■ MIS records
6.2. Capacity of Health staff managing and implementing MIS improved	<ul style="list-style-type: none"> ■ Percentage of health staff trained ■ No. of training programmes held for field staff/ district level and central level managers 	<ul style="list-style-type: none"> ■ Special reports
6.3. Quality of information submitted in returns improved	<ul style="list-style-type: none"> ■ Completeness/ timeliness and accuracy of reporting 	<ul style="list-style-type: none"> ■ MIS ■ Supervision reports
6.4. Logistic system of printed forms improved at all levels	<ul style="list-style-type: none"> ■ Stock outs in MIS forms 	<ul style="list-style-type: none"> ■ Reports of MO.MCH ■ District reviews
6.5. Computerized MIS established and functioning at divisional level Information submitted electronically from all the divisions to the central level	<ul style="list-style-type: none"> ■ No. of computers available at every level ■ percentage of areas sending information electronically 	<ul style="list-style-type: none"> ■ Special reports
6.6. New supervision tools and self evaluatory tools in place	<ul style="list-style-type: none"> ■ New indicators/ targets revised and used ■ No. of self-evaluation tools developed and used ■ No. of supervisory tools developed and in place 	<ul style="list-style-type: none"> ■ Supervision reports ■ Self evaluation tools ■ Special reports
6.7. Regular meetings conducted to review the progress of programme implementation at different levels	<ul style="list-style-type: none"> ■ No. of review meetings conducted ■ Percentage of recommendations implemented 	<ul style="list-style-type: none"> ■ Minutes of meetings ■ special reports
6.8. Relevant operational research studies conducted on Family health	<ul style="list-style-type: none"> ■ No. of research conducted ■ No. of research papers submitted ■ No. of recommendations implemented 	<ul style="list-style-type: none"> ■ Research reports and research papers

6.9. Timely reporting of feed back reports & national statistics	■ Percentage of reports published in time	■ Reports
Strategies / Major Activities		
Maternal care	<ol style="list-style-type: none"> 1. Study and analyze the existing policies on maternal care services 2. Develop minimum standards of ANC services by each level with a view to improve the quality of ANC services (domiciliary and clinic care.) 3. Establish sustainable antenatal service delivery in underserved areas 4. Establish screening programmes for eligible couples before they get pregnant 5. Develop infrastructure and supply of essential equipment to ANC 6. Establish nutritional programme for under nourished mothers (BMI < 18.5) in the community.(Behavioural intervention for target groups) Improve basic investigation facilities of pregnant mothers 	
	<ol style="list-style-type: none"> 7. Develop a surveillance system for maternal morbidity (ante-natal, natal and post-natal morbidity) 8. Improve the quality of post natal services 9. Capacity building of central level and district level programme planners 10. Conduct training programmes for service providers on provision of quality antenatal care 11. Enhance community dialogue between service providers &community 12. Improve male participation in family health 13. Development of referral and back referral system on antenatal care 14. Reduction of home deliveries in selected pockets. 15. Formulate of policies on protection of human rights in maternal care 16. Reform the existing service delivery system on maternal care 	

	<ol style="list-style-type: none"> 17. Strengthen the central level and district level MCH Focal point 18. Strengthen the cross cutting issues such as improvement MCH management at district & peripheral level 19. Establish a confidential enquiry system of Maternal Deaths 20. Development of 'm health' platform 	
Newborn Health	<ol style="list-style-type: none"> 1. Review previous MNH strategic plan & develop a plan for 2017 - 2021 2. Develop Quality assessment tools and pilot testing 3. Develop a field training module for care of the newborn 4. Establish internal and external quality assessment process 5. Introduce newborn care quality indicators into the Medical Information System(MIS) 6. Develop of standards for high risk newborn care & training on 'Kangaroo mother care' 	
Child Health	<ol style="list-style-type: none"> 1. Conduct a study to evaluate the existing Child Health programme in Sri Lanka 2. Revise and develop new policies for the National Child Health programme 3. Develop guidelines for the Child Health programme in Sri Lanka 4. Strengthen the GMP/CF programme 5. Implement the integrated ECCD programme in all MOH areas on a phased out basis in a sustainable manner 6. Establish and strengthen services for 'differently abled' children at district and divisional levels 7. Conduct infant and child death reviews at district level annually 8. Establish a surveillance system to monitor the morbidity conditions affecting the infants and children aged 1-4 years 9. Revise, Print and distribute Child Health Development Records to all Districts 10. Procure supplementary equipment, vitamins and needed supplies for project areas. 	

	<ol style="list-style-type: none"> 11. Support the mobilization of field health workers specially the PHM by providing bicycles thereby improving the coverage and quality of services at community level 12. Provide basic services for children living in vulnerable groups like those living in institutions/ children's homes/Street children/urban slums/ estates/conflict areas etc. 13. Improve the coverage and quality of EPI services improved 14. Establish a community paediatric service headed by a community paediatrician on pilot basis 	
Family Planning	<ol style="list-style-type: none"> 1. Obtain & distribute contraceptive commodities to FP clinics 2. Train PHC workers to provide FP services including counseling 3. Develop standard guidelines for FP service providers 4. Train consultants at central level on FP methods, counseling & sub fertility at overseas centres of excellence 5. Production of IEC material related to FP activities 6. Develop / update the guidelines for the management of sub fertility & train PHC staff on sub fertility 7. Designing and conducting action research on FP programme 	
School Health	<ol style="list-style-type: none"> 1. Appoint a working group and regular meetings to develop school health policy 2. Organize routine meetings of National Coordinating Committee 3. Carryout advocacy programmes for implementing 4. Health Promoting Schools 5. Conduct planning and review meetings for implementing Health Promoting Schools at DPDHS level 6. Conduct awareness programmes for school principals, teachers on Health Promoting Schools 7. Prepare and print guidelines for health & education staff 	

	<ol style="list-style-type: none"> 8. Purchase equipment (weighing scales, height measuring tapes, snellen charts, book containing the growth chart Auriscope) for medical inspection of children 9. Negotiate with educational officials to include health as a subject to the school curriculum 10. Organize a workshop to develop an outline of school curriculum for the subject of 'health' 11. Develop a school nutrition programme 12. Organize Consultative Meetings with Hospital Directors and other Heads of Institutions to improve participation in school health activities 13. Conduct a School Sanitation Survey conducted annually and data provided to the Ministry of Education and other relevant Ministries and Departments 14. Print Guidelines & IEC materials 15. Organize a TOT to develop master trainers 16. Carryout training programmes for field health staff 17. Print necessary formats for implementation of school and adolescent health programme 18. Operational research to identify the needs of school children including adolescents and implement necessary projects 19. Capacity building of national focal point 20. Purchase bicycles, mopeds, scooters, motorbikes and double cabs for public health staff 21. Conduct a life skills Based Health Education programmes for school children 22. Conduct an awareness programme for parents on adolescent health problems & their needs 23. Appointment of an additional MO.MCH at DPDHS level for supervision and monitoring of school health activities 24. Organize regular Monitoring & Evaluation activities 25. Strengthen the school immunization programme 	
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	<ol style="list-style-type: none"> 26. Strengthen the referral system for those children that are diagnosed for illnesses at SME 27. Develop a mechanism to record height and weight of all school children at the beginning of each year 	
Youth and adolescent Health	<ol style="list-style-type: none"> 1. Advocacy on Adolescent and Youth Friendly Health Services 2. Infrastructure development for Adolescent and Youth Friendly Health Services 3. Revision of Adolescent and Youth Friendly Health Services guidelines 4. IEC material development and dissemination for Youth Friendly Health Service centres 5. Pilot testing of Adolescent health assessment tools, adapting and scaling up 6. Capacity building of staff at Youth Friendly Health Service centres 7. Quarterly review meeting of YFHS 8. IEC material development and dissemination for sexual and reproductive health education for adolescents & youth 9. Develop Adolescent & Youth Health participant manual for health staff 	
Planning Monitoring and Evaluation	<ol style="list-style-type: none"> 1. Review existing records and returns used in Reproductive Health MIS and make necessary revisions. 2. Improve skills among managerial and operational staff to ensure proper management and use of the MCH/FP information system 3. Supply necessary data processing equipment, records, returns and other facilities to each level of implementation 4. Organize periodic reviews to monitor the performance and to plan strategies to overcome the problems in service delivery 5. Strengthen supervision of divisional grass root health workers by national, provincial health authorities through revised indicators and targets 6. Provide feed back periodically to the grass root level, programme managers, policy planners and international donor agencies on the progress of service delivery and 	

	<p>national level health indicators</p> <p>7. Conduct operational research related to Reproductive Health with a view to determining the progress and the quality of the MCH/FP service delivery system</p>	
Monitoring & Evaluation	<p>1. Who? Central Level – Ministry of Health (Family Health Bureau), Provincial, District Level – PDHS, DPDHS, Overall and detail supervision by MO/MCH, Ministry of Education , Zonal and Divisional Directors of Education</p> <p>2. When? Monthly, annually reports – Periodical Reports and routine District MCH Reviews (Annually/ biannually), National Nutrition review Periodical survey</p> <p>3. What actions to be taken based on results of monitoring & evaluation: Relevant actions will be taken to overcome the identified deficiencies to improve the existing system.</p> <ul style="list-style-type: none"> ■ Identify problems in implementation and re-planning with necessary corrective action ■ Provide feedback reports to the relevant personnel & follow up ■ Provide training and guidance where necessary ■ Rectify logistic difficulties and transport problems 	
(*)Reference to Research		

Gap Analysis MCH/ FP programme

Activity area	Equity of distribution	Accessibility to all	Quality of Service	Financial Protection of the patient/ Out of pocket expenditure
1. Maternal Health	Good coverage of antenatal care services	Public transport, delay in transport between two hospitals (establish and monitor ambulance cluster system)	Vacant posts in public health personnel, Suboptimum management of complications of obstetric complications	Laboratory investigations
2. Newborn Health	Lack of screening services for newborns. Eg: Congenital hypothyroidism		Unaware of guidelines and poor adherence, Poor maintenance of equipment- eg: PBU, infrastructure deficiencies	Costs of getting tests from outside
3. Child Health A) Child nutrition	Language barrier in nutrition counseling, Inadequate cadre in remote areas, Administrative barriers in reaching populations in plantation sector and local government (Municipal council area)		Capacity of health staff in nutrition counseling, logistics of nutrition commodities, time constraints, high workload for health staff, non-adherence to national protocols, circulars, and guidelines by health staff	
B) Child development and special needs				
i. Child development promotion -Parent awareness building	Channeled through MOH network, Hence equity of distribution will depend on MOH service availability	Accessible to all	Need improvement. New strategies are being introduced e.g. Mothers classes ECCD booklets Mass media programs	No financial commitments by parents.

<p>ii. Care for children with Special needs -Screening -Treatment</p>	<p>Screening is limited to CHDR based indicators.</p> <p>Care Not available in many parts of the country Available in few specialist centers (LR, Ragama disability department, Karapitiya)</p>	<p>Accessible to all mothers</p> <p>Not accessible by many</p>	<p>Both approaches need improvement</p> <p>CHDR indicators being updated</p> <p>PHM based systematic training program is being introduced.</p> <p>Dedicated specialist child development centres have to be established</p>	<p>Disable child is eligible for 3000 Rupees annually Only 31832 payments were carried out last year throughout the country. Not adequate at all</p>
<p>5. School and adolescent Health</p>	<p>Low coverage of School Medical Inspection (SMI) in some areas, Lack of adolescent friendly health services</p>	<p>SMI are not accessible for out of school adolescents</p>	<p>Lack of co-ordination between education and health sector, improper follow up of defects detected at SMI, lack of training among staff on adolescent health, supervision and monitoring deficiencies</p>	
<p>6. Family Planning</p>	<p>Good coverage</p>	<p>Accessibility low for permanent methods</p>	<p>Lack of assignment of trained MOs in reproductive health for family planning clinics,</p>	
<p>7. Women's Health</p>	<p>Low service coverage for pre-conception care</p>		<p>Poor knowledge on service provision regarding pre-conception care, Lack of human resources – for cervical screening & colposcopy</p>	

8. Gender and reproductive health			Human resource deficiency	
9. Planning, Monitoring and Evaluation	All formats in adequate quantities available. Timely distribution		Lack of timeliness, incomplete data, Lack of human resources, training at district and MOH level, Lack of electronic data management system, Lack of supervision	

Title	Vaccine Preventable Diseases
Focal Point	Chief Epidemiologist, Epidemiology Unit
Subject	Polio Eradication Programme Measles, Rubella & Congenital Rubella Syndrome (CRS) Elimination Programmes
Background/ Situation Analysis (Problem Analysis)	<p>Global Poliomyelitis eradication is planned to achieve by 2018. The last case of polio in Sri Lanka was in 1993 and the country is free of polio to date. The Epidemiology Unit, Ministry of Health, is the central coordinating agency for the National implementation of Polio vaccination and AFP (Acute Flaccid Paralysis) Surveillance programme under the Poliomyelitis Eradication Initiative. The virology laboratory in the Medical Research Institute (MRI) is the Reference Laboratory doing investigations in laboratory in exclusion of polio in all AFP cases. Oral polio vaccine (OPV) was introduced to the country in 1962. The OPV vaccine was introduced into the National EPI in 1978 and high OPV coverage (OPV 3) is maintained above 90% in all districts in the country for more than 10 years. Under the Polio Endgame strategies Sri Lanka introduced an additional dose of injectable Inactivated Polio Vaccine (IPV), further to the already given five OPV doses in the National EPI schedule from 1st July 2015 with the 2nd dose of OPV. Sri Lanka has the plans of shifting over to the bivalent OPV (bOPV) in April 2016 and total shifting over to IPV will be after the world is certified as Polio-free as per with global recommendations.</p>

	<p>The measles vaccine was introduced into the Expanded Programme on Immunization (EPI) in Sri Lanka in 1984. Morbidity and mortality of measles were reduced remarkably since then. But an outbreak of measles was experienced from September 1999 to June 2000. This led to the decision to introduce the 2nd dose of measles containing vaccine (MR) at the age of 3 years since 2001 in EPI. After 12 years, an outbreak of measles was experienced from 2013 and continued to date with reduced intensity.</p> <p>Rubella vaccine was introduced into the National EPI in 1996 targeting all reproductive aged females of 11-44 years, with the objective of preventing Congenital Rubella Syndrome (CRS). This was carried out as a school based programme by giving rubella vaccine to all children aged 11-15 years from 2002 -2011. The surveillance of measles, Rubella and CRS was strengthened in 2005-2010 under the plan of 'intensification of the surveillance of Measles, Rubella, CRS' and facility of Laboratory confirmation was made essential for all suspected cases of Measles, Rubella and CRS with regional plans of elimination since 2013</p>
<p>Target areas and Beneficiaries</p>	<p>Target areas:</p> <ul style="list-style-type: none"> • Polio vaccination of all children with 5 doses at 2,4,6,18 months and in 5 years • AFP surveillance, identify all AFP cases below 15 years of age and investigate at the laboratory for polio virus detection • Country preparedness for outbreak investigation of any risk of importation and for the risk of transmission with special attention for polio virus type 2 • MMR vaccination of all children at 9 months and 3 years of age • All suspected cases of measles, rubella and CRS cases are notified on suspicion and investigated at the laboratory for confirmation of cases <p>Beneficiaries:</p> <ul style="list-style-type: none"> • Country will remain polio free and population level polio immunity is maintained high • Measles, Rubella and CRS cases are identified at early stages and laboratory confirmed for identification of cases and special attention

	<p>for the prevention of community transmission</p> <ul style="list-style-type: none"> • Maintain high population level immunity for measles and rubella facilitating elimination
Justification	<p>Eradication and elimination programme strategies will be implemented in the country with close attention to make sure that these Vaccine preventable diseases will not be a public health issue for the country.</p> <p>Close supervision, continuous monitoring and evaluation will focus on working towards achieving expected targets of Poliomyelitis eradication, Measles ,Rubella and CRS elimination.</p>
Important assumptions/ Risks/ Conditions	<ul style="list-style-type: none"> • Risk of importation of Vaccine Derived Polio Virus type 2 (VDPV type 2) • Risk of possible inadequate immunity for type 2 polio virus after shifting over from tOPV to bOPV and only with a single dose of IPV • Continue with susceptible infants below 9 months for measles (since early waning of maternal antibodies have been observed among babies of vaccinated mothers) • Identified under-reporting and late reporting by clinicians from hospitals for AFP cases, Measles, Rubella and CRS cases which would lead for community transmission and increase case load making difficulty in heading for elimination and achieving targets

	<ul style="list-style-type: none"> Inadequate specimen collection of all suspected cases lead to the difficulty in monitoring and evaluation of the programme, and difficulty in performance monitoring at district and divisional levels 	
Vision	Sri Lanka to be free from Poliomyelitis, Measles, Rubella and CRS	
Goal	To achieve a status that Poliomyelitis, Measles, Rubella and CRS are not major public health problems in Sri Lanka	
Programme Objectives	Indicators <ul style="list-style-type: none"> Eradication of Poliomyelitis by 2018 Achieve and maintain zero mortality from Measles ,Rubella and CRS Measles, Rubella and CRS elimination by 2020 	Means of Verification <ul style="list-style-type: none"> Zero polio cases and all AFP cases excluded as non-polio cases Maintain polio vaccination coverage >90% even at sub national levels Zero mortality from measles, Rubella and CRS Maintain high MMR 1 and MMR 2 coverage > 95% even at sub national levels Laboratory confirmation of all suspected Measles, Rubella, CRS cases (100%)
Output	Indicators <ul style="list-style-type: none"> Eradication of poliomyelitis is achieved by 2018 Elimination of Measles , Rubella and CRS cases by 2020 	Verification <ul style="list-style-type: none"> All AFP cases are identified and excluded as non-Polio cases to achieve expected target of <2/100,000 under 15 year age population Laboratory containment of wild polio virus and Sabin viruses after shifting over to IPV Achieve measles and rubella elimination target of <1 per million population by 2020

		<ul style="list-style-type: none"> • Achieve zero cases of CRS per 100,000 live births by 2020
Monitoring and Evaluation	<ul style="list-style-type: none"> • Zero polio cases per million population • Non-Polio AFP rate: <2 per 100,000 population at National and District level • Adequate stool collection rate of >80% at National and District level • Polio vaccination coverage : National, District and Divisional (MOH) levels • Non-Measles, Non-Rubella rate: >2/100,000 population • Proportion of districts reported non-measles,non-rubella rate of >2/100,000 population (target >80%) • Measles and Rubella (lab confirmed cases) Incidence of <1 per million population • Zero incidence of CRS cases per 100,000 live births 	
Reference	<ul style="list-style-type: none"> • www.epid.gov.lk • Immunization Handbook. Epidemiology Unit, Ministry of Health, Sri Lanka. Third Edition, 2012 	

Names of officials who documented the Profile

Dr. Deepa Gamage, Consultant Epidemiologist

Programme Title	National Immunization Programme (NIP)
Focal Point	Chief Epidemiologist, Epidemiology Unit
Background/ Situation Analysis (Problem Analysis)	<p>National Immunization Programme (NIP) consists of both vaccines included in the Expanded Programme on Immunization (EPI) other selected non EPI vaccines. The NIP is implemented to prevent priority Vaccine Preventable Diseases (VPD) in the country.</p> <p>Sri Lanka launched the EPI with basic five antigens in 1978. In subsequent years, the immunization schedule was revised periodically and new vaccines were introduced and currently Sri Lankan children are protected against 11 diseases through NIP free of charge.</p> <p>Immunization services are provided through a wide range of immunization clinics network through well-established Medical Officers of Health, hospitals and even through private sector (Vaccines under NIP are given to private sector to carry out vaccination of eligible children, provided that they are not charged for vaccine cost). . According to the routine immunization coverage data and periodical surveys conducted, virtually all eligible children and women throughout the country are receiving all their scheduled vaccine at the correct time.</p> <p>Polio cases have not been reported since 1993. Neonatal tetanus, Diphtheria, Congenital Rubella Syndrome cases are not reported at all or at elimination levels. Other vaccine preventable target diseases are reported at very low levels. Hence, Sri Lanka has already been achieved most of the indicators envisaged by goals of decade of vaccines and Global Vaccine Action Plan.</p> <p>Despite all these successes, NIP will have challenges too; Increased demand for new vaccines, which are more costly, increasing over all costs of vaccines and financial sustainability, addressing vaccine safety issues (Adverse Events Following Immunization – AEFI), potential vaccine hesitancy issues and, risk communication.</p>

<p>Target areas and Beneficiaries</p>	<p><i>Target areas:</i></p> <ul style="list-style-type: none"> (i) Continued supply of vaccines presently under NIP: Poliomyelitis, Measles, Rubella, Mumps, Diphtheria, Pertussis (Whooping cough) , Tetanus including Neonatal Tetanus, Hepatitis B, Haemophilus Influenza b (Hib), Japanese Encephalitis and Tuberculosis (miliary) (ii) Introduction of new vaccines; Human Papilloma Virus (HPV) vaccine, Pneumococcal Vaccine, Potential Dengue vaccine (?) (iii) Strengthening vaccine ‘ cold chain’ capacities and monitoring the same ; providing new cold rooms, refrigerators, vaccine carriers, and cold chain monitoring devices (iv) Strengthening NIP information management system: expanding newly introduced Web Based Immunization Information System (WEBIIS) and VPD e-surveillance system (v) Human resource capacity building: continued training and providing new/updated information though electronic and published documents/guidelines <p><i>Beneficiaries;</i></p> <p>All citizens in Sri Lanka, with particular emphasis on children, adolescents and pregnant mothers.</p>
<p>Justification</p>	<p>Country NIP is a success story, as no more VPD under NIP is a public health issue in the country. Sustaining any public health achievement is always a challenge. Continued focus and working toward set targets with close monitoring and evaluation are essentially necessary to maintain country is free from VPD.</p> <p>This document is based on the national immunization policy developed in 2014 and given objectives, targets and activities in this document are</p>

	important to incorporate into the national health policy – 2017 and beyond to ensure that country NIP will reach to its set objectives accordingly.
Important assumptions/ Risks/ Conditions	<p>Assumptions</p> <ul style="list-style-type: none"> • Availability and accessibility to quality and safe vaccines • Continued financial sustainability of vaccines required for NIP through government funding • Continued funding support from both government and international partners (WHO, UNICEF, GAVI/ WB) towards NIP • Availability of dedicated, skilled health staff • Continued public trust and compliance towards NIP <p>Risks</p> <ul style="list-style-type: none"> • Increasing vaccine cost; allocation of government funds, considering other competing health needs in the country • Human resources; high turn overs of MOH, need for posting MOH field staff and providing them basic facilities including transport • Increasing demand on new technologies: continued supply of vaccine cold chain equipment's / monitoring devises, supply and replacement of information management equipment (computers/ printers), provision of internet facilities • Vaccine hesitancy and safety issues; anti vaccination lobby and risk communication capacity among public health staff
Vision	A country free of vaccine preventable diseases.

Goal	The overall goal of the National Immunization Policy of Sri Lanka is to ensure all citizens have an equal access to safe, quality, potent and age appropriate immunization services with the aim of controlling vaccine preventable diseases.	
Programme Objectives	<p><i>Objectives</i></p> <ul style="list-style-type: none"> • Eradication of Poliomyelitis • Elimination of measles, Neonatal Tetanus and Diphtheria, Rubella and CRS. • Reduction of morbidity and mortality due to Whooping cough, Hepatitis B, Haemophilus influenza, Mumps, Tetanus , Tuberculosis and Japans encephalitis. 	<p><i>Means of Verification:</i></p> <ul style="list-style-type: none"> • Coverage against each vaccine (indicate number of children/target population protected) • Routine and special VPD surveillance on vaccine effectiveness (indicate achievement on prevention and control of given VPD)
Output	<p><i>Indicators:</i></p> <ul style="list-style-type: none"> • Eradication of Poliomyelitis by 2020 (Sri Lanka has already achieved this) • Elimination of measles, rubella and Congenital Rubella Syndrome by 2020 • Prevention and control of all VPD 	<p><i>Means of Verification</i></p> <ul style="list-style-type: none"> • Coverage against each vaccine (number of children/target population protected) • Routine and special VPD

		surveillance on vaccine effectiveness (achievement on prevention and control of given VPD)
Monitoring and Evaluation	<p>NIP is routinely monitored and evaluated by Epidemiology Unit. Monitoring and evaluation are carried out through;</p> <ul style="list-style-type: none"> - Age and vaccine specific coverage: by national, districts and divisional (MOH) levels - Routine and special VPD surveillance (both epidemiological and laboratory) on vaccine effectiveness (number of each VPD reported) : by national, districts and divisional (MOH) levels - Monitoring vaccine safety issues through effective surveillance of Adverse Events Following Immunization (AEFI) - Annual district/divisions EPI reviews - Quarterly national reviews - Annual EPI surveys (community based) 	
Reference	<ol style="list-style-type: none"> 1. Immunization Handbook. Epidemiology Unit, Ministry of Health, Sri Lanka. Third Edition, 2012 2. National Immunization Policy, Ministry of Health, Sri Lanka. 2014 3. www.epid.gov.lk 	

Names of officials who documented the Profile

Dr. Ananda Amarasinghe

Consultant Epidemiologist

Programme Title	Web based Immunization Information System (WEBIIS)
Focal Point	The Chief Epidemiologist, Ministry of Health
Background/ Situation Analysis (Problem Analysis) <u>using UHC Tool</u>	<p>Sri Lanka has a strong immunization programme, evolved over several decades. Management of the present immunization programme is supported by Management Information System (MIS), entirely driven manually. Manual MIS are known to produce data quality issues in accuracy, completeness and timeliness aspects in data entry and data transcription processes.</p> <p>In addition, the current immunization MIS only covers the government sector institutions and few affiliated private sector institutions, involved in the immunization process. Therefore, data pertaining to immunizations done at other private sector institutions are not captured by the current manual information system. According to the immunization coverage survey conducted by the Epidemiology Unit in year 2010 in the Western province (where majority of private sector institutions are based and 30% of the total Sri Lankan population is concentrated), the private sector contribution for immunization amounted approximately to 13%.</p> <p>It is mandatory to register each and every child born in Sri Lanka in the Birth and Immunization Register (BIR) according to the Public Health Midwife (PHM) area of permanent residency of the parents. Upon registration, PHM of the area updates BIR at each and every immunization encounter by child at the government sector or private sector as per the National immunization schedule. This immunization tracking process is essential to keep track on immunization coverage and to achieve vaccine preventable disease eradication and elimination objectives of the National Immunization Programme which would enable the nation to achieve the Millennium Development Goals. However, it is increasingly becoming difficult due to increasing proportion of parents seeking private sector immunization services and non-availability of parents at homes during health workers' working hours. Some households are inaccessible to health workers due to social barriers.</p>

It is also a known issue that when reaching the field level vaccine stock balance data in an emergency situation, it takes from days to weeks to get down the consolidated reports on the “current” stock positions of the vaccines. This is also a growing concern to immunization programme managers in the Ministry of Health.

Paper based system demands update of four registers in a given immunization encounter for each child, namely the Child Health and Development Record part A and B, Clinic Immunization Register and Birth and Immunization Register. This update process consumes much of the service delivery time of the PHMM. This sometimes forces the PHM to skip the update of the registers leading to poor maintenance of registers.

Given the current global trends in communicable diseases and increasing international travel, presence of an immunization certificate is becoming mandatory at ports of entry in many countries. But at present, many Sri Lankan adults do not possess their childhood immunization details forcing them to undergo revaccination or costly antibody level testing for concerned diseases before their international travel. Current documentation policy also does not support protection of immunization tracking details for more than five years which definitely compromises the availability of immunization records of future adults. It also should be understood that one should travel to his original residential PHM area, if he wishes to access the BIR since it is kept and maintained locally.

With this background, in consistence with eGovernment and eHealth policies of the Government of Sri Lanka, the Epidemiology Unit of the Ministry of Health Sri Lanka has initiated a project called Web Based Immunization Information System (WEBIIS) to create a National Immunization Registry using World Wide Web technology to overcome the present obstacles faced by the immunization management information system and its users.

<p>Target areas and Beneficiaries</p>	<p>Target areas:</p> <ol style="list-style-type: none"> 1. Improve the data quality of Immunization Management Information System 2. Simplify immunization tracking 3. Improve the quality of service delivery by reducing the time on documentation 4. Improve the infrastructure to implement the National Immunization Policy by providing a platform to register immunization clinics in the country and track immunization encounters of the recipients with long term data archiving 5. Improve the public service delivery by the Epidemiology Unit and Ministry of Health using ICT based solution 6. Function as a data sharing hub for institutes of Ministry of Health (preventive and curative) and other government and private institutes <p>Beneficiaries:</p> <ol style="list-style-type: none"> 1. All Citizens of Sri Lanka 2. National Immunization Programme managers at all levels
<p>Justification</p>	<p>WEBIIS will pave the way to create a National Immunization Registry by registering all births occurring in Sri Lanka and tracking all the immunization encounters of the registrants in time to come. This information can be accessed by any authorized health worker for health care delivery purposes. In addition, WEBIIS will facilitate capture of detailed history of Adverse Events Following Immunization (AEFI). Captured data will provide useful information to minimize AEFI in future, making services provided by the National Immunization Program safer.</p> <p>Once the data is captured by the system it will generate a unique identification number called Personal Health Number (PHN an initiative by Information Unit, Ministry of Health, Sri Lanka). Using this number all the details entered</p>

previously for a given child can be retrieved later. This will save significant service delivery time of health workers and enable them to cater to more clients. In addition it will increase the data quality as the error can be trapped at data entry level and later. Captured error can be rectified and record can be updated ensuring error free data available for entire database users.

Captured children's data can be shared with other health and non-health service delivery departments to initiate their own computer based systems reducing re-entry of the baseline data. Theoretically, this initially captured data of children can be used to deliver various services throughout the entire life cycle. Once a person is dead, data can be archived and kept for future references.

Real time inventory of vaccines has been attached to the immunization tracking component of the WEBIIS. This will facilitate the National Immunization Program Managers to have a real time update of stock positions of the vaccines in their areas of purview. Apart from this, reports can be generated on child births and immunization tracking for various levels of health service delivery areas.

Presently, data and information are one of the main avenues of income generation. Many of the Government organizations have identified this potency of their own databases. Epidemiology Unit also having identified this potency of immunization data is exploring the possibility of revenue generation. In addition, WEBIIS has the potency to perform in other countries once it is customized for their needs. The customized version can be sold as a software product. Both these activities will ease the burden of tax payers of the country with regard to the capital and recurrent expenditure of the WEBIIS maintenance.

With all these facilities, current manual system namely the Quarterly Expanded Program on Immunization Return can also be operated through the WEBIIS. Epidemiology Unit foresees that the electronic version of EPI return will eliminate much of data entry errors and data transcription errors. In addition, it will facilitate to drill down the data quality search up to the field immunization clinic level.

<p>Important assumptions/ Risks/ Conditions</p>	<p>Assumptions:</p> <ol style="list-style-type: none"> 1. Continued implementation of eGovernment and eHealth policies 2. Island wide coverage of uninterrupted internet facility <p>Risks:</p> <ol style="list-style-type: none"> 1. Poor IT infrastructure at field level 2. Lack of IT troubleshooting and maintenance teams at regional levels 3. Low IT literacy among senior staffs at all levels of NIP 4. Resistance to change by users of the system and possibly by trade unions 5. Unregulated competition between health sector software products and lack of communication between health sector software developers 6. Lack of documented health data policy on ownership and standards
<p>Vision</p>	<p>Every Sri Lankan citizen is fully immunized with the prescribed vaccination schedule</p>
<p>Goal</p>	<p>To provide the National Immunization Programme with the highest quality data for efficient monitoring and evaluation for its optimal service delivery</p>
<p>Programme Objectives</p>	<ol style="list-style-type: none"> 1. To create national birth and immunization register 2. To provide immunization certificate without geographical and time barriers 3. To provide data and information to manage national immunization program

Output	Indicator: 1. Number of hospitals using WEBIIS for birth registration 2. Number of (field) immunization clinics using WEBIIS for immunization tracking	Verification: 1. Proportion of hospitals that are using WEBIIS for birth registration 2. Proportion of infants with PHN 3. Proportion of clinics using WEBIIS for immunization tracking
Strategies/ Major Activities	1. Advocacy of the health administrators, private sector health institutes and donor agencies on WEBIIS 2. Provide infrastructure facilities (computers, internet connections etc.) to field clinics to implement the WEBIIS 3. Provide necessary basic and advanced training to the field staff 4. Preparation of user manual and training manual for WEBIIS	
Monitoring and Evaluation	1. Zero infants presented for Registrar General without PHN at the birth registration 2. Zero infants presented for 2 nd month vaccination without BCG record in the electronic immunization certificate 3. 100% age appropriate immunization records in the electronic immunization certificate	

Reference	<ol style="list-style-type: none">1. The Epidemiology Unit, Ministry of Health Web Site [www.epid.gov.lk]2. National Immunization Policy, the Epidemiology Unit, Ministry of Health, Sri Lanka. 20143. Policy and Procedures for ICT Usage in Government (e-Government Policy), Information and Communication Agency of Sri Lanka. 20094. National eHealth Policy of Sri Lanka, Ministry of Health. Version 1.6.0. [undated]
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Names of officials who documented the Profile:

Dr. Chathura S Edirisuriya, Senior Registrar (Comm. Med)

Program title	Water Quality Surveillance
Focal point	Chief Epidemiologist, Epidemiology Unit
Back ground / Situation Analysis *(Problem Analysis)	Availability and accessibility to a continuous supply of safe water is a prerequisite for a healthy community. Safe water is defined as water with microbial, chemical, physical and radiological parameters that suits national standards. Incidence of most of the waterborne communicable disease are stagnating since last few years in Sri Lanka, with on and off outbreaks. Further, chemical pollutants in water are hypothesized as risk factors for several chronic disease including CKDu.
GAP ANALYSIS by using UHC tool	
Target areas & Beneficiaries	<p style="text-align: center;">Target areas</p> <ol style="list-style-type: none"> 1. Safety of water in relation to bacteriological parameters 2. Safety of water in relation to chemical parameters <p style="text-align: center;">Beneficiaries</p> <p>All citizens in Sri Lanka, and for chemical water quality testing the residences of CKDu affected areas specially.</p>
Justification	Ensuring water quality requires continuous activities to ensure water quality and surveillance. The responsibility of surveillance is with the Ministry of Health while the responsibility of continuous activities to assure water quality is mainly with the water supplying agents.
Important assumptions / Risks / Conditions	<p>Assumptions</p> <ol style="list-style-type: none"> 1. Availability of necessary laboratory facilities to carry out water quality testing in relation to bacteriological and chemical parameters. 2. More priority is given for water quality surveillance activities

Vision	Healthy people in a healthy Sri Lanka	
Mission	To promote health and quality of life by preventing and controlling disease, injury and disability	
Goal	Ensure that everyone is accessible to adequate amount of safe (Bacteriologically and chemically) water	
Programme Objectives <ol style="list-style-type: none"> 1. Ensure safety of drinking water in related to bacteriological parameters 2. Ensure safety of drinking water in relation to chemical parameters 	Indicators <ol style="list-style-type: none"> 1. Number of samples tested for bacteriological parameters out of number required for a given period 2. Number of samples tested for chemical parameters out of number required for a given period 3. % of unsatisfactory samples to which corrective actions were taken 	Means of Verification <ol style="list-style-type: none"> 1. REE'S monthly consolidated return on water quality surveillance 2. Water quality surveillance registers available at MOOH office
Output All the water sources are tested for bacteriological and chemical parameters in required frequency All water sources are satisfactory in relation to bacteriological and chemical parameter	Indicators <ol style="list-style-type: none"> 1. % of water sources tested for bacteriological parameters in required frequency 2. % of water sources tested for chemical parameters in required frequency 3. % of water sources with satisfactory level of bacteriological and chemical parameters in a given area 	Means of Verification Water quality surveillance registers available at MOOH office

Strategies / Major Activities	<ol style="list-style-type: none"> 1. Laboratory testing of water samples (6/MOH area/month) for bacteriological parameters 2. Laboratory testing of water samples (1/ water source /year) for chemical parameters 3. Capacity building of health staff on water quality surveillance 4. Taking actions for unsatisfactory samples 5. Proper functioning of District and National WaterQuality Surveillance Committees.
Monitoring & Evaluation	<p>Monitoring and evaluation will be done by the Epidemiology Unit, using the</p> <ol style="list-style-type: none"> 1. Monthly consolidated water quality surveillance returns at national and district level 2. Periodical supervision visits to MOOH offices by national and district level health staff.
(*)Reference to Research	

Name of official who documented the profile

Dr.Prasantha Arumapperuma, MO – Epidemiology unit

Program title	Surveillance of Food and Waterborne Diseases
Focal point	Chief Epidemiologist, Epidemiology Unit
Back ground / Situation Analysis *(Problem Analysis)	<p>Surveillance of food and waterborne diseases are conducted as a routine activity, hence the services are distributed across the country uniformly.</p> <p>MOH offices are located all over the country, and in addition, offices of the PHII are located in the vicinity of most of the areas, making it easy to access these services.</p> <p>But majority of the diseases which come under this surveillance are confirmed only clinically and encompasses a large number of diseases caused by different organisms. E.g. the clinical Syndrome Viral Hepatitis can be caused by Viruses (Hepatitis A, B, C, D, E, Epstein-Barr) and by alcoholic liver disease etc.</p> <p>Food and Waterborne Diseases are not given enough priority at the moment due to low mortality due to these diseases. Therefore, financial allocation by the GOSL is not sufficient for carrying out trainings/laboratory tests etc to improve the surveillance. Ministry of Health is dependent on donor agencies at the moment for majority of these activities.</p>
GAP ANALYSIS by using UHC tool	
Target areas & Beneficiaries	<p>Target areas</p> <ol style="list-style-type: none"> 1.Capacity Building <ol style="list-style-type: none"> I. Provide refresher training on the causative agents and Symptoms of Foodborne Diseases/foodborne disease surveillance to the relevant Public Health Personnel II. Provide refresher training on outbreak investigation/report writing to relevant Public Health Personnel 3. Strengthen notification of foodborne diseases, especially food poisoning, by strengthening the notifications by the general public (introduce e-based methods for notifying food poisoning) 4. Strengthen Laboratory confirmation/ identification of causative organism responsible for Foodborne diseases

Beneficiaries	All citizens in Sri Lanka, especially children will benefit from these activities	
Justification	<p>Foodborne diseases have reached a stagnant level over the past few years and new methods are necessary to reduce the disease burden further (e.g. Typhoid vaccine is given to residents of high risk areas)</p> <p>The reduction of foodborne diseases will contribute to</p> <ol style="list-style-type: none"> 1. Reduced mortality and morbidity in both children and adults, directly and indirectly 2. Reduce the economic burden due to foodborne diseases- this is especially important as the majority of the people who suffer from foodborne disease are from poor socio-economic backgrounds 3. Improve the image of the country, facilitating the arrival of tourists etc 	
Important assumptions / Risks / Conditions	<p>Assumptions</p> <ol style="list-style-type: none"> 3. Availability of dedicated, skilled health staff 4. Availability and accessibility to laboratory facilities in a timely manner 5. Continued financial support of the GOSL and other funding agencies such as WHO <p>Risks</p> <ol style="list-style-type: none"> 1. Emerging and re-emerging diseases causing pandemics may gain priority over food and waterborne diseases. 	
Vision	Healthy people in a healthy Sri Lanka	
Mission	To promote health and quality of life by preventing and controlling disease, injury and disability	
Goal	Eliminate food and water borne diseases from Sri Lanka	
Programme Objectives	Indicators	Means of Verification
1. Capacity building in the relevant Health Personnel (Provincial CCPP, REE, MOOH, Supervising PHII and F&DI)	No of Provincial CCPP, REE, MOOH, Supervising PHII and F&DI given refresher training/ target	Data base at the Epidemiology Unit

<p>2. Strengthen notification of foodborne diseases</p> <p>3. Strengthen Laboratory surveillance of food and waterborne diseases</p>	<p>No of notifications on food and waterborne diseases received during the calendar year/Average annual no notified during last 5 years</p> <p>No of samples collected for the surveillance of food and waterborne diseases/ target</p>	<p>Weekly return of communicable diseases (WRCD)</p> <p>Data base at the Epidemiology Unit /Medical Research Institute (MRI)</p>
<p>Output</p> <p>1. Number of food and water borne diseases investigated within 7 days' time</p> <p>2. Number of food and water borne disease outbreaks with complete outbreak investigation reports</p> <p>3. Number of food and water borne disease outbreaks with laboratory confirmed causative organism</p>	<p>Indicators</p> <p>Number of food and water borne diseases investigated within 7 days' time/ total no of food and water borne diseases notified</p> <p>Number of food and water borne disease outbreaks with complete outbreak investigation reports/ total no of outbreaks reported</p> <p>Number of food and water borne disease outbreaks with laboratory confirmed causative organism / total no of outbreaks reported</p>	<p>Means of Verification</p> <p>WRCD</p> <p>Data base at the Epidemiology Unit</p> <p>Data base at the Epidemiology Unit</p>
<p>Strategies / Major Activities</p>	<p>1. Provide refresher training on the causative agents and Symptoms of Foodborne Diseases/foodborne disease surveillance to the relevant Public Health Personnel (Provincial CCPP, REE, MOOH, Supervising PHII and F&DI)</p> <p>2. Provide refresher training on risk assessment to the relevant Public Health Personnel</p> <p>3. Formulate Rapid Response Teams(RRTT) to carry out Foodborne Disease control activities</p> <p>4. Provide refresher training on Risk Communication</p> <p>5. Provide refresher training on outbreak investigation/report writing to relevant Public Health Personnel</p>	

Monitoring & Evaluation	Monitoring and evaluation will be done by the Epidemiology Unit, using the <ol style="list-style-type: none"> 1. Data base at the Epidemiology Unit/ MRI 2. Weekly return of communicable diseases (WRCD) 3. Regional Epidemiologists' Quarterly Review
(*)Reference to Research	

Name of official who documented the profile

Dr.Madhava Gunasekera, Senior Registrar – Comm. Med

Epidemiology unit

Title	Communicable disease Surveillance
Focal Point	Chief Epidemiologist, Epidemiology Unit
Subject	<p>Communicable disease Surveillance</p> <p>Control and prevention of Japanese encephalitis</p> <p>Control and prevention of Meningitis</p>
Background/ Situation Analysis (Problem Analysis)	<p>Communicable disease Surveillance</p> <p>History of the notification of communicable diseases in Sri Lanka dates back to late 19th century. The Quarantine and Prevention of Diseases Ordinance had been introduced in 1897 to implement the notification system on communicable diseases in the country. The Ordinance includes the List of Notifiable Diseases and states that all medical practitioners or persons professing to treat diseases and attending to patients <u>suspected</u> of any notifiable disease in the list should notify the case to the relevant public health authorities. Notification of a patient with a notifiable disease initiates a regulated flow of activities in the field. The PHIs are responsible to carry out control and preventive measures related to the disease following the investigation. These include identification of the source of infection and contact tracing as well.</p> <p>Data on communicable diseases received through weekly return of communicable diseases (WRCD) from all MOH areas in the country are entered in a central database at the Epidemiology Unit and consolidated at the end of every week. These consolidated data in the form of a summary report is published in the Weekly Epidemiological Report (WER), which is circulated to all health institutions in the country completing the feedback link in the national disease notification chain. Data on notified communicable diseases are also summarized quarterly in the Quarterly Epidemiological Bulletin published by the Epidemiology Unit.</p>

Further to the field investigations during routine surveillance of communicable diseases, special investigations are carried out for 15 selected priority diseases (including all vaccine preventable diseases). Special investigations are aimed at obtaining more details than the data available through the routine preliminary field investigations for this group of diseases. Information targeted through special investigations includes patients' clinical presentation, laboratory investigations, immunization details, management details and clinical conclusions. These information widely used for decision making on long term control and prevention measures (including policy decisions) of the index diseases.

Availability of technical experts at each levels (divisional, district and national) and regular training, supervision, monitoring and evaluation of the communicable disease surveillance programme performance are mainly responsible for its achievements.

Communicable disease surveillance system has been the driving hub for Sri Lankan communicable disease control and prevention for the last few decades. It has been evolved over many years and proven that it can be adopted to ever changing epidemiology of communicable diseases in the country.

Epidemiology unit has introduced the web based National communicable disease surveillance system called "e-surveillance" since January 2015 to replace the previous paper based National communicable surveillance system. This new web based surveillance system may contribute immensely to improve the efficiency and accuracy of the communicable surveillance data leading to effective control and prevention of communicable diseases in the country. Currently this system is functioning smoothly throughout the country.

Control and prevention of Japanese encephalitis

Japanese encephalitis (JE) is an infection of the central nervous system caused by a virus transmitted to man through mosquitoes. JE is a major debilitating communicable disease with a case fatality rate of approximately 30%. Nearly half of the survivors of the disease suffer long term neuro- psychiatry sequelae.

JE virus was isolated for the first time in Sri Lanka at the Medical Research Institute in 1968. However, the first recorded major outbreak occurred in Sri Lanka in 1985-86 in the North Central Province. Three hundred and eighty five cases were reported in this outbreak with 64 deaths with a case fatality rate

(CFR) of 17%. The disease occurred in epidemic proportions in 1986-87 and 1987-88 too. The latter outbreak was the largest outbreak reported so far with 812 cases and 192 deaths (CFR- 24%). This outbreak spread to three new districts adjoining to the North Central Province.

Subsequent to these outbreaks, immunization against JE with the inactivated JE vaccine was introduced on a phased basis in 1988 in Sri Lanka. The target group identified for vaccination was children in the age group of 1-10 years. Before 2011, JE immunization campaigns were conducted in selected 18 high endemic districts. Deviating from the campaign mode, Live JE vaccine has been introduced into the national EPI programme as a routine vaccine covering the entire country since 2011. The success of immunization against JE is reflected in the fact that since 1988, incidence of JE has decreased drastically with the increased coverage of vaccination. Since 2003, only sporadic JE cases have been reported from different parts of the country.

All suspected cases of encephalitis (including JE) are notified from health institutions to a MOH office, thereafter investigated by the MOH team and reported routinely to the Epidemiology unit through the WRCD. In addition, it is a responsibility of the MOH to carry out the special investigation procedure for clinically confirmed encephalitis cases.

Control and prevention of Meningitis

According to the WHO, in year 2000, Hib was estimated to have caused two to three million cases of serious disease, notably meningitis and pneumonia, and 386,000 deaths in young children globally. Another significant proportion of children with serious Hib disease end up with long term consequences such as deafness, learning disabilities, paralysis and mental retardation.

A recent disease burden study on Haemophilus influenzae B carried out in Sri Lanka has indicated that it is an emerging public health issue. Fortunately, Haemophilus influenzae B disease (Hib) is preventable. Vaccines are the only public health tool capable of preventing the majority of cases of serious Hib disease. Sri Lanka has introduced Hib vaccine into its National Immunization schedule in year 2008 in the form of liquid pentavalent vaccine (DTP-HepB+Hib).

Meningitis is a notifiable disease in Sri Lanka since 2005. All suspected cases of meningitis are notified from health institutions to a MOH office, thereafter investigated by the MOH team and reported routinely to the Epidemiology unit through the WRCD. In addition, it is a responsibility of the MOH to carry out the special investigation procedure for clinically confirmed meningitis cases.

<p>Target areas and Beneficiaries</p>	<p><i>Target areas:</i></p> <ul style="list-style-type: none"> (vi) Strengthening the communicable disease surveillance system by expanding newly introduced web based e-surveillance system. (vii) Strengthening the communicable disease surveillance system by further strengthening the monitoring and evaluation. (viii) Human resource capacity building: continued training and providing new/updated information through electronic and published documents/guidelines (ix) Ensure vaccination of all children with 3 doses of Hib vaccine at 2,4,6 months of age (x) Ensure vaccination of all children with Live JE vaccine at one year of age (xi) All suspected cases of JE are notified on suspicion and investigated at the laboratory for confirmation of cases <p><i>Beneficiaries;</i></p> <p>All citizens in Sri Lanka, with particular emphasis on children.</p>
<p>Justification</p>	<p>Strong communicable disease surveillance system is essential for effective control and prevention of communicable diseases and to assess the effectiveness of communicable disease control activities.</p>

Important assumptions/ Risks/ Conditions	Assumptions <ul style="list-style-type: none"> • Availability of dedicated, skilled health staff • Continued funding support from both government and international partners (WHO, UNICEF, GAVI/ WB) • Rapid expansion of IT technology within the country Risks <ul style="list-style-type: none"> • Human resources; high turn overs of MOH/PHI, need for posting MOH and other field staff and providing them basic facilities including transport • Increasing demand on new technologies: timely supply and replacement of information management equipment (computers/ printers), provision of internet facilities 	
Vision	<ul style="list-style-type: none"> • Sri Lanka to be free from preventable communicable diseases 	
Goal	To achieve a status that communicable diseases are not major public health problems in Sri Lanka	
Programme Objectives	Objectives <ul style="list-style-type: none"> • Timely identification of communicable disease related outbreaks • Reduction of morbidity and mortality due to Haemophilus influenza meningitis and Japans encephalitis. 	Means of Verification <ul style="list-style-type: none"> • Percentage of communicable disease outbreaks identified timely • Maintain high LJEV and Hib coverage ,> 95% even at sub national levels • Laboratory confirmation of all clinically suspected JE cases (100%)

Output	Indicators <ul style="list-style-type: none"> • Prevention and control of all communicable diseases • Prevention and control of JE • Prevention and control of meningitis 	Verification <ul style="list-style-type: none"> • Percentage of communicable disease outbreaks identified timely • Maintain high LJEV and Hib coverage ,> 95% even at sub national levels
Monitoring and Evaluation	<p>Communicable disease surveillance system is routinely monitored and evaluated by Epidemiology Unit. Monitoring and evaluation are carried out through;</p> <ul style="list-style-type: none"> - Routinely monitoring the quality and accuracy of surveillance data at divisional, district and national level. - Routine checks incorporate in to the web based e surveillance system - Periodically evaluating the completeness and timeliness of WRCD send b MOOH - Quarterly district reviews - Quarterly national reviews - District reviews carry out by the Epidemiology unit <p>JE and Hib vaccination performance are monitored and evaluated by Epidemiology Unit. Monitoring and evaluation are carried out through;</p> <ul style="list-style-type: none"> - Age and vaccine specific coverage: by national, districts and divisional (MOH) levels - Routine and special VPD surveillance (both epidemiological and laboratory) on vaccine effectiveness (number of each VPD reported) : by national, districts and divisional (MOH) levels - Monitoring vaccine safety issues through effective surveillance of Adverse Events Following Immunization (AEFI) - Annual district/divisions EPI reviews - Quarterly national reviews - Annual EPI surveys (community based) 	

Reference	<ul style="list-style-type: none">• www.epid.gov.lk• Immunization Handbook. Epidemiology Unit, Ministry of Health, Sri Lanka. Third Edition, 2012• Surveillance case definitions for Notifiable Diseases in Sri Lanka, Ministry of Health, Sri Lanka. 2nd Edition.
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Names of officials who documented the Profile

Dr. Samitha Ginige

Consultant Epidemiologist

Programme Title	Surveillance of Leishmaniasis
Focal Point	Chief Epidemiologist, Epidemiology Unit
Background/ Situation Analysis (Problem Analysis)	<p>Sri Lanka was considered as a country free from Leishmaniasis until early nineties. First local case of CL was reported from in 1992 (Athukorala et al 1992). Eventually CL has been established as an endemic disease in Sri Lanka. (Rajapaksha et al 2007)Leishmaniasis has become a notifiable disease since 2008. The first locally acquired VL patient was presented from North Central province in 2006 (Abeygunasekara et al 2007).</p> <p>The disease has a wide spectrum of manifestations ranging from self-limiting skin lesions to disseminated disease affecting the entire reticuloendothelial system. Visceral Leishmaniasis (VL), mucocutaneousleishmaniasis (MCL) and cutaneous leishmaniasis (CL) are the main clinical manifestations.</p> <p>When considering the geospatial spread of the CL, in 2015 only few districts were spared of reporting the disease. Anuradhapura, Hambantota, Matara ,Kurunegala and Polonnaruwa are the highest reporting districts in the country.</p> <p>Presently patients suspected as having Leishmaniasis mainly at dermatology clinics are notified to the respective Medical Officer of Health. Each Confirmed Leishmaniasis cases should further investigated through special surveillance by respective Medical Officer of Health and report to the national surveillance unit, Epidemiology Unit, Ministry of Health.</p> <p>To allocate resources for disease control and prevention against the competing priorities both in the field of communicable and non-communicable diseases is also a challenge when consider the disease control. It has also evident that the awareness of the disease among both health personnel and general public are still poor</p>

<p>Target areas and Beneficiaries</p>	<p>Target areas</p> <ol style="list-style-type: none"> 1. Capacity Building <ol style="list-style-type: none"> I. Provide refresher training on the causative agents, vector, control and prevention of the disease and disease surveillance to the relevant Public Health Personnel II. Provide refresher training to the curative health staff on the disease and the importance of notification 2. Improve awareness of the public by using IEC materials <p>Beneficiaries</p> <p>All citizens in Sri Lanka especially those who are living in endemic areas</p>
<p>Justification</p>	<p>Leishmaniasis continues to increase in the country. Most of the districts are reporting the disease. It has been found that the vector is prevalent all over the country. Currently only method of prevention used is early diagnosis and prevention. Hence the awareness of the public regarding the disease is vital. At the same time building the capacity of both curative sector health care workers and preventive care workers are important. There is a risk of Visceralization of the disease as the causative organism in Sri Lanka causing visceral Leishmaniasis in other countries.</p> <p>The reduction of Leishmaniasis cases and improve disease surveillance and prevention will contribute to</p> <ol style="list-style-type: none"> 1.Reduced the morbidity of the disease 2.Reduce the economic burden due to Leishmaniasis 3. Reduce the risk of emerging visceral Leishmaniasis in the country 4. Improve disease surveillance help to justify the resource allocation

	<p>for disease control and prevention against the competing priorities both in the field of communicable and non- communicable diseases</p> <p>5.Improve the image of the country, facilitating the arrival of tourists etc</p>
<p>Important assumptions/ Risks/ Conditions</p>	<p>Assumptions</p> <p>6. Availability of dedicated, skilled health staff</p> <p>7. Availability and accessibility to health facilities for treatments</p> <p>8. Continued financial support of the GOSL and other funding agencies such as WHO</p> <p>Risks</p> <p>1. Emerging and re-emerging other communicable diseases causing pandemics may gain priority over Leishmaniasis.</p> <p>2. There can be development of more resistant strains for the current treatments.</p>
<p>Vision</p>	<p>Healthy people in a healthy Sri Lanka</p>
<p>Goal</p>	<p>Eliminate the diseases Leishmaniasis from Sri Lanka</p>

Programme Objectives	Indicators	Means of Verification
<p>4. Capacity building of relevant Health Personnel</p> <p>5. Improve awareness of the public by using IEC materials</p>	<p>Proportion of provincial, district and divisional officers trained</p> <p>Proportion of staff trained in dermatology clinics</p> <p>No of notifications of Leishmaniasis received during the calendar year/Average annual no notified during last 3 years (percent increase in notifications)</p> <p>Number of IEC materials developed / target</p>	<p>Data base at the Epidemiology Unit</p> <p>Weekly return of communicable diseases (WRCD)</p> <p>Clinic attendance register</p>
<p>Output</p> <p>3. Number of Leishmaniasis cases investigated within 7 days' time</p> <p>4. Number of Leishmaniasis cases notified in each health institution</p>	<p>Number of Leishmaniasis cases investigated within 7 days' time/ total no Leishmaniasis cases notified</p> <p>Number of Leishmaniasis cases notified for one month/ total no Leishmaniasis cases registered in the skin clinic</p>	<p>WRCD</p> <p>Clinic attendance register</p>

Strategies/ Major Activities	<p>i. Capacity Building</p> <ul style="list-style-type: none"> • Provide refresher training on the causative agents, vector, control and prevention of the disease and disease surveillance to the relevant Public Health Personnel • Provide refresher training to the curative health staff on the disease and the importance of notification <p>ii. Improve awareness of the public by using IEC materials</p>	
Monitoring and Evaluation	<p>Monitoring and evaluation will be done by the Epidemiology Unit, using the</p> <ul style="list-style-type: none"> • Weekly return of communicable diseases (WRCD) • Regional Epidemiologists' Quarterly Review • District Public Health Reviews • Indoor mortality and morbidity report 	
Reference	<ul style="list-style-type: none"> • Abeygunasekara, P.H., Costa, Y.J., Seneviratne, N., Ranatunga, N., Wijesundara, M.D.S., 2007. Locally acquired visceral leishmaniasis in Sri Lanka. <i>Ceylon Medical Journal</i>.52 (1) p 30-31. • Athukorala, D. N., Senevirathne, J. K., Ihlamulla, R. L., Premarthne, U. N. 1992. Locally acquired Cutaneous Leishmaniasis in Sri Lanka. <i>Tropical Medicine and Hygiene</i> 95(6) 432-3. • Rajapaksha, U.S., Ihlamulla, R.L., Udagedara, C., Karunaweera, N.D., 2007. Cutaneous leishmaniasis in Southern Sri Lanka. <i>Royal Society of Tropical Medicine and Hygiene</i>.101 p799-803. • Ministry of Health, 2011. Surveillance Case Definition for Notifiable Diseases in Sri Lanka. 2nd ed Sri Lanka. • WHO 2010. Technical Report Series. Control of the Leishmaniasis, Geneva, Switzerland. 	

Names of officials who documented the Profile:

Dr. Prasanna Kariyawasam

Programme Title	Prevention and Control of leptospirosis in Sri Lanka
Focal Point	Chief Epidemiologist, Epidemiology Unit
Background/ Situation Analysis	Leptospirosis continues to be a public health problem with over three thousand cases reported to the Epidemiology Unit each year in the recent past. In addition to the cases the case fatality too is around 1% to 2%. Sri Lanka has witnessed outbreaks too some years. Major outbreak in 2008 when we had over seven thousand cases was one such example. Most of the disease exposure remains occupational and is associated with paddy cultivation and harvesting. Most patients are adult males in the farming community. Most programmes and activities are implemented to coincide with 'Yala' and 'Maha' paddy cultivation season.
GAP analysis using UHC Tool	
Target areas and Beneficiaries	<p>The main areas would be strengthening surveillance, primary prevention through improved community/farmer awareness, chemoprophylaxis to high risk categories and early detection and proper management of leptospirosis patients.</p> <p>Leptospirosis continues to be an occupational disease which is predominantly rural based. Therefore the main beneficiaries would be the rural community especially persons engaged in paddy cultivation. Other areas of exposure include persons engaged in sand mining, animal husbandry, gem mining, exposure to floods and muddy environments and persons engaged in other agricultural activities.</p>

Justification	<p>Leptospirosis is a disease of public health importance in Sri Lanka. In 2008, during the outbreak we had a total of over 7000 cases and over 200 deaths. In the recent past the cases and deaths occurring has been reduced and is currently around 4000 cases and 50 deaths each year. The field level activities conducted with guidance and direction from the National level has contributed to this success. Hence continued attention and annual implementation of activities at field level and also strengthening surveillance and management of patients is important for preventing and controlling the disease. In addition it needs to be complemented with central level activities such as mass media campaigns. Further the activities need to be done evidence based and with guidance of the Epidemiology Unit and with involvement of other stakeholders. Hence it is important to have a control programme to monitor and guide the activities related to leptospirosis control.</p>	
Important assumptions/ Risks/ Conditions	<ul style="list-style-type: none"> • Majority of leptospirosis is rural leptospirosis in Sri Lanka which is predominately through occupational exposure • Doxycycline chemoprophylaxis is given for high risk farming community during paddy cultivation period • Rat continues to be the most important reservoir of the disease 	
Vision		
Goal		
Programme Objectives	<ul style="list-style-type: none"> • To Reduce the incidence of Leptospirosis • Reduce the case fatality rate (CFR) of Leptospirosis • To prevent outbreaks due to Leptospirosis 	

Output	<ul style="list-style-type: none"> • Surveillance of leptospirosis strengthened • Inter sectoral coordination with health sector and other key sectors such as agriculture, agrarian and animal husbandry continued • Community awareness on primary prevention and early health seeking behavior improved • Early diagnosis and patient management improved 	
Strategies/ Major Activities	<ul style="list-style-type: none"> • Strengthening surveillance especially during paddy cultivation season • MOH level meetings to improve intersectoral coordination • Conducting mass media campaigns to complement field level awareness programmes • Chemoprophylaxis to high risk groups during the exposure period • Development of guidelines for leptospirosis management • Increasing awareness of clinicians on national guidelines for improved utilization 	
Monitoring and Evaluation	<ul style="list-style-type: none"> • Assessing the completeness, timeliness and accuracy of surveillance data • Assessing the district and MOH level reporting of cases observing the trend and take actions • District and national level case fatality ratio • Doxycycline requirement and utilization at National, district and MOH level <p>These assessments are done through reporting surveillance data and reviews.</p>	
Reference		

Name of officials who documented the Profile

Dr. Jagath Amarasekera

Programme title	Coordination of Nutrition programmes
Focal point	Director, Nutrition Coordination Division (NCoD)
Back ground/ Situation Analysis *(Problem Analysis)	<p>Adequate nutrition in all stages of life cycle is essential for survival, physical growth, mental development and productivity. Despite of having many achievements in health and social indicators during past few decades Sri Lanka is still showing suboptimal progress in certain indicators related to nutrition. According to the available research data, macronutrient and micronutrient deficiencies are still public health problems in Sri Lanka.</p> <p>Prevalence of Low Birth Weight (LBW), stunting, wasting and underweight among children 6-59 months of age were 16.6%, 13.1%, 19.6% and 23.5% respectively. Anemia is still a problem in all age groups. Among the under five children the prevalence of anemia is 15.1% and anemia among non-pregnant women was higher than pregnant women (22.2% vs. 16.7%).The prevalence of Vitamin A deficiency based on biochemical evidence was 29.3%, indicating that it is a public health problem. Iodine deficiency disorders were also identified as a public health problem. However, the total goiter prevalence has been decreased from 18.2% to 3.8% from 1986 to 2005 with the salt iodization programme.</p> <p>For the last few decades Ministry of Health, Nutrition and Indigenous Medicine with its responsible units and the other stakeholders carried out several intervention programmes to upgrade the nutritional status of the people in Sri Lanka. However, the magnitude of the problem still remains high with varying intensities within the country. As the nutrition problems are multi factorial, the improvement of nutrition status of the people requires comprehensive multi-sector approach.</p> <p>Effective coordination, monitoring and evaluation within the Ministry of Health, Nutrition & Indigenous Medicine and other stakeholders is mandatory to strengthen the multisectoral approach thereby to overcome this important public health problem in the country.</p>

GAP ANALYSIS by using UHC tool	Attached separately
Target areas and beneficiaries	All the Sri Lanka people with special attention to nutritionally vulnerable population of the country
Justification	Several stakeholders are involved in nutrition related activities and their role within the frame work of Ministry of Health, Nutrition & Indigenous Medicine and outside the ministry should be clearly defined. A focal point for coordination of Nutrition related activities is essential to provide a better service to the nation.
Important assumption/ Risks/ Conditions	<ul style="list-style-type: none"> - NCoD will get the support from all the health and non-health related stakeholders to carry out its activities - Will get continuous funding from GOSL and other UN/NGO agencies - will get political leadership at National, Provincial & District levels to strengthen inter-sectoral coordination
Vision	“ Sri Lanka a Nourished Nation “
Mission	Contribution to policy formation, provision of technical guidance, coordinate nutritional related activities within the Ministry of Health, Nutrition & Indigenous Medicine and other stakeholders, and facilitate implementing nutrition interventions at district level through financial support, monitoring & evaluation
Goal	To improve the nutritional status of the population in Sri Lanka

Programme objective	Indicators	Means of Verification
1. To provide guidance for policy formulation, strategies and guidelines	<ol style="list-style-type: none"> 1. Availability of updated nutrition policy and strategic plan 2. Number of guidelines developed on nutrition 3. Number of other health related policies which included nutrition 	Policy documents/ strategic plans and guidelines on nutrition
2. To strengthen advocacy and multi-sectoral coordination at all levels	<ol style="list-style-type: none"> 1. Percentage of functioning district, divisional & village level Nutrition Coordinating Committees 2. Number of MOH areas implemented advocacy programmes for key stakeholders 3. Number of MOH areas conducted community level nutrition programmes with multisectoral approach 	- Quarterly review reports - Minutes of the meetings
3. To guide implementation of District Nutrition Action Plans (DNAP) to overcome malnutrition in the districts	<ol style="list-style-type: none"> 1. Percentage of districts having comprehensive nutrition action plans 2. Percentage of health workers participated for the DNAP workshops 3. Percentage of nutrition resource centers/clinics develop at MOH areas 4. Percentage of districts implemented annual DNAP on time 	- Sample surveys - Supervision reports
4. To establish a comprehensive national nutrition surveillance system	<ol style="list-style-type: none"> 1. Proportion of District Secretariat divisions incorporated in to the National Nutrition Surveillance System 2. Proportion of District Secretariat divisions equipped with trained human resources and physical resources 3. Percentage of Provinces/Districts using their National Nutrition Surveillance System data for planning nutrition programmes 	- National and District level Data base
5. To monitor and evaluate nutrition related activities at national and district level	<ol style="list-style-type: none"> 1. Number of quarterly National Nutrition steering committees conducted 2. Percentage of progress review meetings conducted at District level 3. Percentage of monitoring visits made to districts annually 	Minutes of meetings
6. To monitor and evaluate the Thriposha programme	<ol style="list-style-type: none"> 1. Number of MOH areas receive Thriposha on time 2. Number of MOH areas distribute Thriposha on time 3. Percentage of underweight children aged 6-59 months of age who have received Thriposha 4. Percentage of pregnant mothers who have received Thriposha 5. Percentage of lactating mothers (delivery to 6 months) who have received Thriposha 6. Percentage of children who improve their weight after receiving Thriposha 7. Percentage of MOH areas with proper storage facilities for Thriposha 	- MBI report - H 509 - Sample survey

Output	Indicators	Means of verification
1. Conduct orientation and master training programmes on nutrition aspects of Early Childhood Care Development for PHC workers and other relevant officers	<ol style="list-style-type: none"> 1. Number of orientation programmes conducted 2. Number of Districts which conducted master training programmes 3. Number of PHC workers trained on nutrition aspects of ECCD 4. Number of MOH conducted pre-school teacher training programmes 5. Percentage of pre-school teachers trained on nutrition aspects of ECCD 	Programme progress reports
2. Provide nutrition commodities and equipments to health care facilities at MOH/ district level	Number of nutrition resource centers/ clinics with adequate equipments	District review reports
3. Facilitate to conduct IYCF and GMP training for PHC workers at district level	Number of MOH areas conducted IYCF and GMP training programmes for PHC workers	<ul style="list-style-type: none"> - Programme progress reports - Expenditure report
4. Upgrade Thripasha storage facilities at MOH level	1. Number of MOH areas/ clinic centers with proper Thripasha storage facilities	
5. Strengthen district, divisional and village level multisectoral nutrition committees	<ol style="list-style-type: none"> 1. Number of RDHS areas established district Nutrition Committees 2. Number of MOH areas established divisional Nutrition Committees 3. Number of PHM areas establish village level nutrition committees 	
6. Conduct training programmes for other relevant sector officers involve in nutrition related activities at district level	<ol style="list-style-type: none"> 1. Number of training / awareness programmes conducted for other relevant sector officers involve in nutrition related activities at district level 2. Number of DS level committees conduct multi -sectoral nutrition interventions 	
7. Facilitate to implement nutrition clinics	1. Number of MOH areas with Nutrition clinics functioning monthly	
8. Provide guidance and facilitate development of DNAP	<ol style="list-style-type: none"> 1. Percentage of District level officers trained on development of DNAP 2. Number of District plans received according to the guidelines 3. Number of RDHS areas implemented DNAP 	
9. Provide financial facilities to conduct district level nutrition related activities.	<ol style="list-style-type: none"> 1. Total amount of money distributed among districts 2. Proportion of money spent by each district out of total allocation 	<ul style="list-style-type: none"> - Expenditure report - Financial report

10. Conduct advocacy programmes at central and provincial level for policy makers on nutrition	<ol style="list-style-type: none"> 1. Number of advocacy programmes conducted for policy makers at central level 2. Number of advocacy programmes conducted for policy makers at provincial / district level 	- Progress review reports
11. Coordination and implementation of activities of National Nutrition Month	<ol style="list-style-type: none"> 1. Number of IEC materials Developed for Nutrition month 2. Number of programmes conducted at National level targeting the National Nutrition Month 3. Number of media campaigns conducted 	Nutrition month report
12. Improve community participation in nutrition related activities	<ol style="list-style-type: none"> 1. Number of villages with functioning nutrition committees/ mothers support groups 	
13. Increase intra household food security through home gardening	<ol style="list-style-type: none"> 1. Number of MOH areas conducted awareness programmes for promotion of home gardening 2. Number of PHM areas implement home gardening programmes 3. Number schools implement home gardening /healthy food habits programmes 	Progress review reports
14. Improve Sports Nutrition Knowledge & practices among responsible officers for sports in schools	<ol style="list-style-type: none"> 1. Number of awareness programme conducted 2. Number of modules developed to improve knowledge and practices 3. Number of post evaluation programmes conducted 	Progress review reports
15. Establish monitoring and evaluation mechanism to monitor nutrition related activities at district level	<ol style="list-style-type: none"> 1. Number of quarterly progress review meetings conducted at district level 	Progress review reports
Monitoring & Evaluation	<ol style="list-style-type: none"> 1. Review and revise District Nutrition Action plans 2. Annual supervision visits to districts should be carried out by the central level for monitoring and evaluation of the progress 3. At the end of the year an annual progress review meeting will be conducted at central level 4. A summary report of the activities conducted within the ministry by the other nutrition related units should be compiled and evaluated 5. A summary report of the activities conducted by other nutrition related stakeholders (multi-sectoral) should be compiled and evaluated 	

Reference to Research	<ol style="list-style-type: none"> 1. Medical Research Institute, 2012, National Nutrition and micronutrient survey, Ministry of health Sri Lanka. 2. Medical Research Institute (1998). Vitamin A status of children in Sri Lanka 1995/96 – A survey report. Ministry of Health and Indigenous Medicine, Sri Lanka. 3. Medical Research Institute. Iodine nutrition status in Sri Lanka 2000-2001, Ministry of Health, Sri Lanka 2001. 4. Medical Research Institute, UNICEF. Vitamin A nutrition status in Sri Lanka. Ed. Jayatissa R, Gunathilaka MM. Ministry of Healthcare and Nutrition, Colombo, Sri Lanka 2006a. 5. Medical Research Institute, WFP and UNICEF. Nutrition and food security assessment in Sri Lanka 2009, Ed. Jayatissa R, Hussein M. Ministry of Health, Colombo, Sri Lanka 2010. 6. Ministry of Health Sri Lanka 2006-2011, Nutrition Status in Sri Lanka, determinants and interventions: A desk review Rajapaksha.L C, Arambepola. C, Gunawardana. N
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Names of officials who documented the profile

Dr Rasanjalee Hettiarachchi -Director, Nutrition Coordination Division
Dr. Arundika Senaratne - Senior Registrar
Mr Ajith Ihalanayaka- Deputy Director (Planning)
Dr Nipuni Amarasinghe - Medical Officer
Mrs M.R.J.U.R. Silva - Assistant Director (Planning)
Mrs. Lakmini Thilakaratne - Nutritionist

Program title	CKDu Prevention and Control of Chronic Kidney Disease of Unknown Origin
Focal point	DDG (PHS) I
Back ground / Situation Analysis *(Problem Analysis)	<p>CKDu in NCP is a toxic nephropathy. Multi-centre studies of renal biopsies have indicated a tubular necrosis due to a toxic substance.(immunological involvements have been excluded) and it is attributed that said toxic substance is the agro-chemicals used in food cultivation</p> <p>Case definition of CKDu ;- patients who had persistent albuminuria ie- albumin-creatinine ratio (ACR)> 30 mg/g in initial urine sample and in an urine sample obtained at a repeat visit were considered to have CKDu if they satisfied all the following criteria</p> <ul style="list-style-type: none"> • No past history of ureteric calculi, glomerulonephritis , pyelonephritis , or snake bite • Not on treatment for Diabetes • Normal HbA1c (< 6.5%) • If on treatment for raised blood pressure BP < 140/90 mmHg , and if not on treatment for blood pressure BP <160/100 mmHg <p>Clinical Grading of CKDu ;-</p> <ul style="list-style-type: none"> • Grade 1 – Persistent albuminuria (ie;- ACR > 30 mg/g in initial and repeated urine samples) and eGFR> 90 ml/min/1.73 sqm • Grade 2 – Persistent albuminuria and eGFR 60 – 89 ml/min/1.73 sqm • Grade 3 – Persistent albuminuria and eGFR 30 - 59 ml/min/1.73 sqm • Grade 4 - Persistent albuminuria and eGFR< 30 ml/min/1.73 sqm <p>In a comprehensive study conducted recently (Jayathilaka ,Mahipala ,Mehta ,et,al WHO (1) it has been stated that more severe grades of CKDu were seen more frequently in Males , and the prevalence was higher with increasing age in both sexes</p> <p>At the aforementioned study the chemical analysis of the following have been conducted to ascertain the Cadmium and Arsenic levels present in each type of sample ie;- Urine of CKDu patients and healthy subjects , Hair and Nails , Postmortem samples of bone , liver and kidneys , Water from different sources , food , tobacco , betel leaves , and soil . High levels of Cadmium had been detected in CKDu patients and also in urine of healthy subjects in the endemic area ; which finding has to receive urgent attention as those healthy subjects are vulnerable to acquire CKDu It has also been stated that high level of Cd is evident in lotus root , tobacco and fish of local reservoirs (Wevmalu) Among the Pesticide residues in the urine Glyphosate levels were above the reference range</p> <p>Another study (Jayasekaraet,al. CMJ (2) which has used GIS mapping of 11630 patients , stated that most of the affected villages were located below the reservoirs and canals with stagnant irrigated water. Glyphosate ,Hard water and heavy metal have been attributed as causative agents by Jayasumanaet,al (3) It appears that CKDu is present in whole of dryzone as a study conducted in Jaffna has revealed 6.7% of CKDu patients in the said Northern peninsula (Raveendran&Balraj (4) In an research article</p>

	<p>(Wanigasooriya K (5) history of smoking has identified as a factor involved and it coincides with the finding of increased Cd in tobacco in study (1) But surprisingly it was not possible to find study reports on effect of tobacco chewing habit with betel leaves on incidence of CKDu</p> <p>As the size of the kidney depends on the height & ethnicity, the kidneys of Rajarata people are small in size according to their stature . Further, this population drink less water comparatively as the water available to drink in Rajarata is not palatable (Hard water with Increased Ca+) which makes the toxic substance more concentrated in the body . It is a known fact that concentration of body water & drinking contaminated water play an important role in the progression of CKDu (eg ;- a study team on CKDu in Sugar cane workers of Nicaragua has reported that ; after working under the hot sun for the whole day , the sugar cane workers have lost 2.4% of their body mass by evaporation of body water ; The widely available employment in Nicaragua is sugar cane industry . Ail most all Males are engaged as sugar cane workers , Main cause of Death in Nicaragua is CKDu (46 %) and most of the males have died of CKDu and now Females have to go as sugar cane workers to earn a living /www. CKDu in sugar cane workers in Nicaragua .com)</p> <p>Almost all the CKDu patients in Rajarata (North Central Province) are from the farming community; Out of which the majority are males The economically active age group – even the males of age group of 40 years die of CKDu , leaving their young wife and small kids desperate – which is a social tragedy and also a threat to the food security and economy of the country</p>
<p>GAP ANALYSIS by using UHC tool</p>	<p>Clinical aspects</p> <ul style="list-style-type: none"> • As all patients are referred to the Consultant Nephrologists, it is vital to have Nephrologists in all key hospitals (proposed to appoint newly board certified Consultant Nephrologists ; who come back to Sri Lanka after foreign training ; to the CKDu region) • Separate wards to be constructed for Nephrologists (in places which has no such facility) • It is suggested to increase the cadre of Medical Officers in Nephrology units as the patients load/disease burden is steadily increasing • Simultaneously the cadre of nurses also to be increased to offer a quality nursing care for all patients • Laboratory facilities to be expanded in view of catering the kidney profile (otherwise the poor patients , themselves have to spend out of pocket to get the laboratory tests from private sector) • Equipment in Dialysis units will not be sufficient to cater all needy patients but it should not be taken as a factor to limit the services (for below 50 yrs only ?) Instead more Equipment & staff for Dialysis unit to be provided • All central and peripheral dialysis units should be staffed optimally (M.OO & N.OO) to offer an uninterrupted service (Consumables such as D/water , Tri carbonate etc ; of which the supply should be monitored) • In addition to above the supply of drugs and surgical consumables, laboratory reagents should be monitored by an officer designated for the task to avoid shortages . Further unexpected breakdown of Dialysis units , Laboratory

Equipment etc should be managed by the said officer to grant a quality service to all patients with CKDu

- As CKDu clinics are overburdened with large numbers of patients, additional staff and facilities should be provided at all Nephrology clinics in NCP
- It is also essential to train the staff of primary level curative hospitals (Divisional Hospitals and Primary Medical Care Units in NCP) to take care of CKDu patients referred back from Nephrology unit
- Ideally a referral and back referral programme should be established with the model of shared care cluster system to facilitate the follow-up of CKDu patients(with an advocacy programme to the policy makers and well-designed awareness programme for the general public)

Public Health aspects

- The ground water available in Rajarata is not palatable (= Hard water) Thus it is essential to provide safe drinking water to the affected areas . The ideal situation is to provide pipe borne safe water but it may take several years to complete such water supply schemes due to financing and construction issues
- Therefore the immediate alternative is to establish RO filters (Reverse Osmosis Filters) at community centres (At present NWSDB has established RO filters at ;-(1) Parakramapura and (2) Boogahawewa at Padaviya Division (3) Thambalagollewa (5) Wahamalgollewa and(6) Sangilikanadarawa of Rambewa Division (7) Mahadiulwewa (8) Periyakulama (9) Kidawarmkulama and (10) Mahakumbukgollewa of Medawachchiya Division and (11) Yudhaganawa of Medirigiriya Division . All these OR filters are managed locally by Community based organizations under supervision of NWSDB The timely maintenance is attended by the technical staff of NWSDB) The range PHI of Department of Health Services should establish linkage with these CBO in maintain the sanitation
- In fact the NWSDB has suggested a training programme on the subject of RO Technology for PHI and PHM of the affected region (Background of RO technology ;= Osmosis is the movement of water molecules through a semipermeable membrane , from a low concentrated solution to a high concentrated solution until the concentration of both solutions become equal ; In Reverse Osmosis ; by applying external pressure this process is reversed ;Water molecules in the concentrated solution (Raw water = input) are forcibly sent through RO membrane to the filtered low concentrated solution and all other molecules are kept behind in the concentrated solution (= reject water) By filtering a finer particle size ,RO systems remove much smaller dissolved particles than do ultra-filtration or any carbon filters (Because of the very small pore sizes < 0.001 microns ; in the filtration membranes used in RO) . Unlike the latter two , the RO systems remove heavy metals such as Cadmium , Arsenic , Lead & Copper and volatile organic compounds , Sodium , Nitrates , Phosphates ,Fluorides , cysts , total dissolved solids (TDS) agrochemical and petrochemical contaminants and pharmaceutical contaminants in one-step procedure .In addition ,the RO process also removes salinity (ie;- brackishness, iconicity) and various microbial and biological contaminants . Therefore the RO technology is an important solution for generating safe portable water

	<ul style="list-style-type: none"> • The RO filters established by NWSDB ; to be registered under Department of Health Services (as any other drinking water producing plants in the country) However , most of the bottled water available in the market have a low TDS value range of 20 – 40 ; But water from RO filters will have a TDS value lower than said figure . Therefore the lower level of TDS in drinking water has to be decided by the authorities However certain literature states (7) that consumption by a healthy person of low TDS water alone cannot cause unhealthy systems . • However the Technical management of RO filters is a complex issue (a) The TDS of source of water for the RO filter should be tested and specifications to be made accordingly . Many RO filters received as donations have ceased to function as this requirement was not considered prior to installation . Higher the TDS value of input water the expensive and high-tech models of RO filters needed . It is the duty of relevant authorities to decide on specifications of RO filters that could be imported in to Sri Lanka or assembled in Sri Lanka (b) People /CBO did not know that the RO filter should be operated 24 hours a day and the switched off to save electricity ;- thus the sedimentation and foul smelling occurs (c) As the yield of water from the source may reduce at drought season , tiny silica particle may be absorbed during such periods and it could damage the RO filter (d) In developed countries the reject water from RO filter is dumped into the sea ,as it contains a very high concentration of chemicals etc . The other alternative is reject water ponds with bricks to absorb the concentrate (During ancient kings era of Sri Lanka , Lotus plants were grown in ponds of Rajarata and later these Lotus plants were burnt in to ashes = a technique titled as Phytoremediation) . At present the reject water of Thambalagollewa RO filter is being used to cultivate vegetables as a study (RSC/NC &Rajarata university) but some other scientists do not agree with that procedure of reject management At Jinasena RO filter at Koonketiyawa a part of reject water is being sent to the source and the balance re circulate through RO . In addition , it is planned to burn the filter media after a certain period by using a special fumer . The larger the total daily production of RO filtered water , the larger the volume of rejected water (about 20% of input volume) which is heavily concentrated with harmful chemicals and the reject management is to be monitored by PHI • The seeds used in agriculture in Sri Lanka are specialized ie;- hybrid or genetically modified ; as such paddy & vegetable cultivations cannot maintained without agro-chemicals But if at all to control CKDu the traditional seeds (which does not need agro-chemicals) should be promoted Eg;-Traditional Agriculture = traditional rice (eg; KaluHeeneti) + traditional vegetables (eg ; Chena vegetables /' Hen Elawalu') • Community based health promotion in CKDu should be strengthened • A consultant community physician should be appointed to each district with CKDu to plan , implement and monitor the community health programme on CKDu • MO/CKDu attached to MOH divisions in NCP to work with the said CCP to implement the strategic plan and monitor the patients and their families in the village level • PHI and PHM will conduct awareness programmes to the families in each village and follow up them with regard to their compliance to public health advice (Posters and Leaflets may be designed accordingly by District CCP or HEB
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- Some of the CKDu patients are obtaining treatment both from western allopathic system and also from Aurvedic system ; this issue has to be attended with caution The study conducted by Jayathilaka, Mahipala, Mehta el, al (1) has identified herbal remedies used in Sri Lanka which are Nephrotoxic (eg ; - Sassada /Sapsanda) The community should be made aware of this danger by PHI & PHM
- The same study has indicated the harm caused by Lotus roots , Local fish and tobacco . Lotus roots are widely consumed by villages in NCP either at lunch or dinner as it is a widely available and non-expensive vegetable for them . On the other hand Lotus roots are a special dish in most of the super class star hotels island wide Similarly Tank fish (wevmalu) is less expensive to villages of NCP rather than sea fish and as such NCP people consume more of local fish; In other parts of the country , tank fish has an increased demand as the supply is not sufficient to cater the demand Therefore Awareness programmes should be conducted at village level by PHI & PHM about the said items & chewing tobacco leaves with betel
- It is stated by the clinicians that smoking aggravates the disease progression , as such the PHI and PHM can be utilized to take the anti – smoking message to the CKDu patient & family
- Digital Blood pressure apparatus issued to PHM (to monitor BP in Ante Natal mothers) can also be used to monitor BP of CKDu patients at village level

**Needs of the patients , their families and the villages
(Psycho-social & rehabilitative care needs)**

- The out of pocket expenditure for travelling to Nephrology unit (eg; Dimbulagala to Polonnaruwa) and/or to local Dialysis unit (eg ; Sampathnuwra to Padaviya) ; Cost of vital laboratory tests which have to be purchased from private sector ; as the patient needs a helper throughout the visit to clinic or dialysis unit , the cost of helper’s meals and bus fair , etc are a burden to these rural and extremely poor patients , (it is said that , because of the humanitarian qualities of the rural folk the whole village get together to collect money for the medical expenses of the CKDu patient, but after about 3-4 years time the patient invariably dies ,and not only the patient’s family ,but the whole village comes to a state of extreme poverty = The saga of CKDu in Wev-gamma . Therefore it is proposed to increase the allowance (paid by the Divisional Secretary to incurable patients) from Rs 300/= per month at present to Rs 3000/= per month per CKDu patient per month in future (It may be divided as Rs 1000/= per month for a CKDu patient who has to attend Nephrology clinic once a month & Rs 3000/= for a CKDu patient who is dependent on Dialysis and has to attend Dialysis unit bi-weekly)
- A special (Free of charge) bus service to be arranged From Padaviya to Anuradhapura and From Dimbulagala to Polonnaruwa to facilitate the CKDu patients (it is proposed to purchase two comfortable buses for this activity)
- Most of the patients come to the Nephrology clinic , at the night before the clinic day or early in the morning as to get an early appointment among the thousands of patients ; But at present they have no facilities to stay overnight in the clinic premises and have sleep on corridors etc . Therefore it is proposed to construct separate waiting area for these patients with standard facilities

- When the young husband died of CKDu ; the young wife has to face special problems ; and at this important situation she should be brought under care of the PHM ;The PHM should be trained specially to cater the psycho –social and reproductive needs of the young widow
- With the death of the father , the children become a more vulnerable group , their security, education, nutrition etc will not be attended as required Again the Public Health team MOH,PHI,PHM , along with teachers and other govt; officials at village level ; have a complex duty to perform , but it’s the humanitarian side of the duty.
- At present with all agrochemicals the farmers of NCP obtain 100 bushes of paddy per acre . But if they change in to traditional paddy it will only be possible to obtain 60 – 80 bushes . Thereby the farmers will lose their income . Thus as a subsidy it is proposed to pay an increased price for the farmers who produce traditional type of paddy
- Social Stigma – As Rajarata is now an area burdened with CKDu , it was noted that some of the students selected to Rajarata University from other regions of the country (and especially their parents) are reluctant to stay in Rajarata as they are afraid to consume water and food from Rajarata Similarly , at many instances , if a CKDu patient is a family member , marriage proposals for younger male/female members of the said family have been rejected by the other party .The factors involved in this issue are (a) getting exposed to the CKDu environment – water & food consumed by the CKDu patient ,will have to be shared by the newly joined member to the family (b) Cost of caring the CKDu patient ,(which is a heavy burden to these farmer families) has to be shared by the newly joined member to the CKDu family
- It is extremely important to note that about 90% of CKDu patients are unable to work as they did before .ie;- the farmers loose their job
- Father loosing job , affects much the education of children ; especially the children at A-level or university entrance ie;- Not only the farmers are lost , but the future- professionals to be , are also lost (Therefore it is recommended to create a special financial aid scheme to make these children to continue their education)
- Many people who were much active and social workers earlier ; have become psychologically depressed and isolated characters after diagnosing CKDu .As such the Community Mental Health unit to be mobilized towards these needy people , who once were the food suppliers to the nation

Administrative and policy issues

- Considering all above it is proposed to establish a vertical programme for CKDu (as in the case of cancer control etc)
- To appoint a National Consultative Committee on Chronic Kidney Diseases of unknown aetiology (CKDu) and the TOR would be (a) to collaborate with all research institutions and individual research officials to analyze available evidence about causative factors of CKDu in affected districts of Srilanka .(b)to facilitate/conduct additional research activities as per requirement (c) to advice the Ministry of Health about Human resources infrastructure

	<p>development needs in relation to patient care in CKDu (d) to design Public Health programmes in CKDu (e)to formulate the National Policy on prevention and control of CKDu in Srilanka</p> <ul style="list-style-type: none"> • Continue to strengthen and standardize disease registries and surveillance reporting systems for CKDu with GPS mapping according to GN divisions ;Share information as a public service and for research purposes • Strengthen the national environmental toxicology and epidemiological networks by supporting the open, transparent exchange of information ; Expand and harmonize laboratory equipment , protocols and training to ensure data quality • Complete an economic evaluation of CKDu to model the costs and societal impact on Srilanka Evaluating and recognizing the economic impact will help to quantify the costs and impacts and may further mobilize resources • It is the agricultural method which is practiced by the farmers ,that matters most . The hybrid or Genetically modified seeds need more chemical fertilizer and pesticides , but the traditional paddy does not need either of said chemicals .Therefore attitudes and practices of farmers to be changed (= Use of harmful pesticides and fertilizer should be reduced through awareness of community than legal restrictions on use of said chemicals • Strengthen Research studies by a multidisciplinary independent authority , which will attend to the following (a) identify CKDu priority research topics which are relevant to the community (eg Compare the usefulness of studying - Nephrotoxins produced by certain algae at specific temperatures ? with the value of studying the effects of drinking water from RO filters on CKDu incidence / prognosis or the analysis of pesticide residue in rice produced in endemic areas) (b) approval of research protocol / Review of research methodology (although the cost is high analytical grade laboratory chemicals should be used in the analysis of samples to avoid questions of validity of test results (c) monitoring of research studies (eg sampling & statistical analysis ; as often criticized by fertilizer and pesticide experts) (d) Review of conclusions and recommendations before publication .(e) sharing of research Data (in summary ; - to embark on a broad-based, root-cause-oriented , realtime, geo-water-environmental and socio-medical prospective research programme covering the entire region) • Educate farmers on the prevention of water and environmental pollution and taking proper safty precautions during the handling of agrochemicals /Ban spraying and applying chemicals just prior to harvesting and transportation of fruits and vegetables /Control all chemical fertilizers and agrochemicals & pesticides
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	<p>The situation analysis of CKDu problem was conducted by Director – Policy Analysis & staff visiting various locations of Sri Lanka including Anuradhapura , Polonnaruwa Nephrology units – TH / Kandy , Sugar cane plantations in Higurana - Ampara , Palwatta in Buttala , Ekamuthugama in Sewanagala , Hambegamuwa Colony in Thanamalvila ,Angunakolapelessa , Sooriyawewa , and Lunugamwehera</p>																																																													
<p>Target areas & Beneficiaries</p>	<p>Distribution of identified CKD patients during the year 2014 – 15</p> <table border="1" data-bbox="370 743 1456 1255"> <thead> <tr> <th>Province</th> <th>Districts</th> <th>CKD patients Identified 2014</th> <th>CKD patients Identified Jan to Oct 2015</th> <th>Total as at Oct 2015</th> </tr> </thead> <tbody> <tr> <td rowspan="2">North Central Province</td> <td>Anuradhapura</td> <td>11,706</td> <td>1,326</td> <td>13,032</td> </tr> <tr> <td>Polonnaruwa</td> <td>5328</td> <td>718</td> <td>6,046</td> </tr> <tr> <td rowspan="2">Northern Province</td> <td>Mullaitivu</td> <td>140</td> <td>133</td> <td>273</td> </tr> <tr> <td>Vavuniya</td> <td>287</td> <td>1397</td> <td>1,684</td> </tr> <tr> <td rowspan="2">Eastern Province</td> <td>Ampara</td> <td>619</td> <td>52</td> <td>671</td> </tr> <tr> <td>Trincomalee</td> <td>311</td> <td>156</td> <td>467</td> </tr> <tr> <td>North Western Province</td> <td>Kurunegala</td> <td>1342</td> <td>83</td> <td>1425</td> </tr> <tr> <td rowspan="2">Uva Province</td> <td>Badulla</td> <td>3050</td> <td>48</td> <td>3098</td> </tr> <tr> <td>Monaragala</td> <td>583</td> <td>4</td> <td>587</td> </tr> <tr> <td>Central Province</td> <td>Matale</td> <td>741</td> <td>211</td> <td>952</td> </tr> <tr> <td>Southern Province</td> <td>Hambanthota</td> <td>61</td> <td>251</td> <td>312</td> </tr> <tr> <td colspan="2">Total</td> <td>24,256</td> <td>4320</td> <td>28,576</td> </tr> </tbody> </table>	Province	Districts	CKD patients Identified 2014	CKD patients Identified Jan to Oct 2015	Total as at Oct 2015	North Central Province	Anuradhapura	11,706	1,326	13,032	Polonnaruwa	5328	718	6,046	Northern Province	Mullaitivu	140	133	273	Vavuniya	287	1397	1,684	Eastern Province	Ampara	619	52	671	Trincomalee	311	156	467	North Western Province	Kurunegala	1342	83	1425	Uva Province	Badulla	3050	48	3098	Monaragala	583	4	587	Central Province	Matale	741	211	952	Southern Province	Hambanthota	61	251	312	Total		24,256	4320	28,576
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<p>Justification</p>	<p>Inadequate Facilities to cater the increasing number of patients suffering with CKDu (total number of patients diagnosed (during 2014 & 2015) as having CKDu = 28,576 However , prior to year 2014 another 22,611 had been diagnosed as having CKDu)</p> <p>Diagnosed CKDu patients by districts (2000 - 2013)</p> <table border="1" data-bbox="370 1520 1456 1743"> <thead> <tr> <th>District</th> <th>No of Diagnosed CKDu patients (from 2000 to 2013)</th> </tr> </thead> <tbody> <tr> <td>Anuradhapura</td> <td>11212</td> </tr> <tr> <td>Polonnaruwa</td> <td>2957</td> </tr> <tr> <td>Kurunegala</td> <td>9781</td> </tr> <tr> <td>Batticaloa</td> <td>325</td> </tr> <tr> <td>Trincomalee</td> <td>3858</td> </tr> <tr> <td>Ampara</td> <td>1118</td> </tr> <tr> <td>Badulla</td> <td>3141</td> </tr> </tbody> </table>	District	No of Diagnosed CKDu patients (from 2000 to 2013)	Anuradhapura	11212	Polonnaruwa	2957	Kurunegala	9781	Batticaloa	325	Trincomalee	3858	Ampara	1118	Badulla	3141																																													
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Nephrology Patient Care Statistics - January / June 2015

Total number of patients registered - Jan./Jun 2015	Nephrology unit Anuradhapura	Nephrology unit Kandy	Nephrology unit Maligawatta
CKD	2482	970	3537
Diabetic Nephropathy	407	100	
Renal Transplant	88	870	757

Statistics on Haemodialysis - January / June 2015

	Nephrology Unit Anuradhapura	Nephrology Unit Kandy	Nephrology Unit Maligawatta
Direct Admissions	2338	10325	2886
Inward cases	156	1794	2947

No of Renal Transplants performed - January / June 2015

	Nephrology Unit Anuradhapura	Nephrology Unit Kandy	Nephrology Unit Maligawatta
Donor	7	39	4
Cadaveric	-	3	5

Existing Haemodialysis (HD) facilities in 35 hospitals and the expansion during 2015 (As at Sep 2015)

Province	Institutions	Existing		Provided			Total
		2013	2014	02/2015	08/2015 (From Nos 2)	10/2015 (From Nos 33) Yet to be installed	
Central	TH Kandy	23	-	8*			31
	BH Dambulla	-	-	-		5	5
Eastern	DGH Ampara	6		2			8
	BH Dehiattakandiya	-	-	-		5	5
	BH Kanthale	-	-	-		3	3
	DGH Trincomalee	-	2	-	2		4
North Central	TH Anuradhapura	23	-	2			25
	BH Padaviya	6	-	2			8
	BH Kabathigollawa	-	-	-		5	5
	BH Thambuththegama	-	-	-		5	5
	DH Madawachchiya	-	-	-		5	5
	DGH Polonnaruwa	16	-	-			16
	BH Madirigiriya	-	1	1			2
	DH Hinguragoda	-	-	-		5	5
Northern	TH Jaffna	11	-	2	2		15
	DGH Vavuniya	4	-	-			4
	DGH Kilinochchi	-	-	2	2		4
	DGH Mulaitivu	-	2	-			2

	DGH Mannar	2	2	-	0		4
North	TH Kurunegala	12	-	-			12
	BH Polpithigama	-	-	-			0
Western	BH Nikawaratiya	-	4	-			4
Southern	TH Karapitiya	7					7
	GH Matara	2			1		3
Uva	PGH Badulla	1	3	-			4
	BH Mahiyanganaya	3	-	2	1		6
	DH Girandurukotte	-	-	-			0
	DGH Monaragala	3	-	2			5
Western	CSTH	5					5
	LRH	3					3
	NHSL	9			4		13
	NINDT - Maligawatte	20					20
	Police Hospital	3					3
	SJTH	12					12
	CNTH - Ragama	1					1
Total machines in the Govt.sec.		172	14	23	12	33	254
Machines in the CKD affected areas							187

Important assumptions / Risks / Conditions	Expected to serve the CKDu patients through following network of Curative Care Institutions			
	Distribution of curative settings CKD management (In addition to Nephrology Units at TH – Anuradhapura , DGH - Polonnaruwa , TH - Kurunegala , PGH - Badulla , TH - Karapitiya , National Institute of Nephrology - Maligawatta Colombo 10)			
	District	Primary Care Units	Nephrologists Visiting Centers	Dialysis Units managed by VPs
	Anuradhapura	Galenbindunuwewa, Horowpathana, Kahatagasdigiliya, Kakirawa, Mahawilachchiya, Nochchiyagama, Rambawa, Thalawa, Thambuththegama	Madawachchiya, Kabathigollawa	Padaviya
	Polonnaruwa	Walikanda, Aralaganwila	Bakamuna, Hingurakgoda	Madirigiriya
	Kurunegala	Giribawa, Kobeigane, Kotawehera, Nikawawa	Nikaweratiya, Polpithigama	-
	Matale	-	Wilgamuwa	-
	Trincomalee	Padavisripura, Gomerankaradawala, Wanela, Kanthalai	-	-
	Ampara	-	Dehiattakandiya	DGH Ampara
	Badulla	-	Girandurukotte	BH Mahiyanganaya
Monaragala	Bibile, Siyambalanduwa, Wellawaya, Buttala, Madagama, Thanamalwila	-	DGH Monaragala	
Hambanthota	Thisamaharamaya, Lunugamwehera, Sooriyawewa	-	-	
Vavuniya	Vavuniya South. Cheddikulum	DGH Vavuniya	-	
Mullaitivu	Sampathnuwara, Welioya, Mallavi	-	-	

Vision		
Mission		
Goal		
Objectives	Indicators	Means of Verification
Output	Indicators	Means of Verification
Monitoring & Evaluation		
(*)Reference to Research	<ol style="list-style-type: none"> 1. Jayathilaka,N; Mahipala,P; Mehta,F.R ; - Investigation and Evaluation of Chronic Kidney Disease of Uncertain Aetiology in Sri Lanka – WHO 2012 (final report) 2. Jayasekera, J.M.K.B ;Dissanayaka ,D.M ;Adikari,S.B ;Bandara ,P ;- Geographical distribution of chronic kidney disease of unknown origin in North Central Region of Sri Lanka – Ceylon Medical journal 2013 ;58 ; 6-10 3. layasumana ,C; Gunathilaka,S; Senanayake , P; - Glyphosate, Hard water and Nephrotoxic metals ; Are they the culprits behind the epidemic of chronic kidney disease of unknown etiology in Sri Lanka – Int,J,Environ.Res.Public Health 2014 , 11(2), 2125-2147 4. Raveendran, A ;Balrajah ,S; - Epidemiology of chronic kidney diseasein the local population in Jaffna – Srilanka 5. Wanigasooriya, K ; -Aetiological factors of chronic kidney disease in the North Central Province of Srilanka : A review of evidence to-date – Journal of college of community physicians of Srilanka – June 2012 vol 17 no 01 ; 15-20 6. Myles,E ; Jennifer, H.R ;Keith,E.L ; Wickramasinghe,R .J ;Wanigasooriya,K.P ;Peiris-john ,R.J. ; - Chronic kidney disease of unknown etiology in Sri Lanka ; Quest for understanding and global implications – Research brief - May 2014 7. De Alwis, K ; Chronic kidney disease – When scientists disagree – National academy of sciences of Srilanka 8. Noble ,A ;Amerasinghe , P ; Manthritilake , H ; Arasalingam , S ; – Review of literature on chronic kidney disease of unknown etiology (CKDu) in Srilanka ‘ – IWMI -2014 9. Guyton,A.L.; The natural control of mineral concentration in the human body .- Text book of Medical Physiology – W,B Saunders Co Philadelphia 10. Report on Reverse Osmosis Plants Installed –NWSDB –July 2014 	

Areas need to be strengthened

Strategic Area 1: Access to screening		Gaps	Proposed solutions
1.1 Strengthening of screening guidelines	1.1.1	Prepare criterion for screening guidelines	One screening cycle should be completed within 3 years. (approximate 6 million people to be screened in the CKDu affected districts) Therefore at least 2 million should be screened in each year. But the current rate of screening nearly 200,000 persons per year.
			The present screening method further simplified without compromising the sensitivity and the specificity. Now it has to come to the field level as a guideline.

1.2 Implement a systematic screening programmers for CKD	1.2.1	Implement a systematic screening programmers	Please refer to 1.3.3.1	
1.3.1 Strengthening of infrastructure facilities for CKD screening in key affected areas	1.3.1.1	Provide screening and patient management centers to identified hospitals in the affected area	Inadequate number of screenings	Construction work of 15 screening clinics has started in the affected area
	1.3.1.2	Establish Divisional level and District level CKD Units	No such units	Set up district CKDu units
	1.3.2.1	Provide laboratory facilities for the hospitals in the endemic area	Not enough human resource to continue such units	Appoint sufficient human resources and equipment to those units for a good functioning.
1.3.2 Strengthening of laboratory facilities for CKD screening in Key affected areas	1.3.2.1	Provide laboratory facilities for the hospitals in the endemic area	Shortage of MLTs	Need to provide more MLTs
			1.3.3.1	Appointment of AMOH CKDP to all high risk RDHS and MOH areas
1.3.3 Strengthening of human resources for CKD screening in key affected areas	1.3.3.1	Appointment of AMOH CKDP to all high risk RDHS and MOH areas	Severe shortage of MLTs	Need to appoint MLTs to the CKDu high risk areas.
1.4.1 Improvement of mobile clinics conducted at GSN Divisions	1.4.1.1	Provide vehicles to conduct mobile CKD screening	Inadequate transport facilities to attend for the screening clinics and sample transportation	Provide more vehicles.
1.4.2 Improvement of transport facilities for Nephrologists and their team to attend outreach clinics and the cadaver transplant programme (TH Anuradhapura, TH Kandy, DGH Polonnaruwa, PGH Badulla)	1.4.2.1	Provide transport facilities to attend outreach clinics and cadaver transplant programmer (TH Anuradhapura, TH Kandy, DGH Polonnaruwa, PGH Badulla)	Inadequate transport facilities	Provide adequate transport facilities.
1.5 Improve mobile lab services	1.5.1	Provide a mobile labs to CKDu high risk areas	Please refer to 1.3.2.1	
Strategic Area 2: Management of patients				
2.1 Strengthening of management guidelines	2.1.1	Prepare criterion for management guidelines	Unavailability of clinical guidelines	A new CKDu patient management guideline has been published by the Ministry of Health
2.2 Ensure access to identified essential drugs	2.2.1	Provide essential medication for the hospitals in the endemic area.		
2.3.1 Improvement of dialysis facilities	2.3.1.1	Provide dialysis machines and required resources for dialysis units	Need more dialysis machines for the CKDu high risk areas.	Need to provide more dialysis machines
2.3.2. Establishment of renal units in PGH Badulla, DGH Trincomalee, TH Batticaloa, TH Jaffna	2.3.2.1	Establish renal units in PGH Badulla, DGH Trincomalee, TH Batticaloa, TH Jaffna, DGH Hambanthota	Inadequate renal clinics	Five renal clinics with dialysis and transplant facilities will be set up soon. (Trincomalee, Batticaloa, Badulla and Hambanthota renal clinics will have dialysis facilities while Jaffna center will have kidney transplant facilities in addition to the dialysis facilities)

2.3.3. Strengthen transplant facilities in TH Kandy, TH Karapitiya, TH Anuradhapura, TH Jaffna, TH Peradeniya	2.3.3.1	Strengthen transplant facilities in TH Kandy, TH Karapitiya, TH Anuradhapura, TH Jaffna, TH Peradeniya	Inadequate kidney transplant facilities	CKDu National Center will be established in Polonnaruwa and it will improve the dialysis and kidney transplant facilities in the country to a greater extent
2.3.4. Strengthen cadaver Transplant programme	2.3.4.1.	Streamline Cadaver Transplant Programme	Inadequate transport facilities	Provide adequate transport facilities.
	2.3.4.2.	Appointment of coordinator cadaver Transplant programme	Inadequate medical and nursing officers No coordinator has been appointed yet.	Provide adequate medical and nursing officers Need to appoint such coordinator soon.
2.3.5 Strengthening of laboratory facilities for CKD management in key affected areas	2.3.5.1	Provide laboratory facilities for the hospitals in the endemic area	Please refer to 1.3.2.1	
2.3.6 Improvement of palliative care in TH Anuradhapura, DGH Polonnaruwa, TH Kandy, PGH Badulla	2.3.6.1	Provide facilities for palliative care in TH Anuradhapura, DGH Polonnaruwa, TH kandy, PGH Badulla	Inadequate medical and nursing officers for the palliative care	Provide adequate medical and nursing officers for the provision of the palliative care institutes
2.3.7 Improving infrastructure of medical wards where CKD/CKDu patients are managed	2.3.7.1	Provide physical infrastructure facilities for medical wards	Inadequate ward facilities	With the establishment of the new renal units, the ward facilities will be largely improved.
Strategic Area 3: Human Resources				
3.1.1 Ensure availability of AMOH CKDP for screening, community empowerment & education, data management and assisting in CKD clinics in all high risk areas	3.1.1.1	Appointment of AMOH CKDP to all high risk RDHS and MOH areas	Inadequate number of AMOH/CKDP	Appoint from the immediate available list.
3.1.2 Ensure adequate number of human resources for data management	3.1.2.1	Appointment of human resources for data management in all high risk RDHS and MOH areas	Need data entry operators at MOHh and RDHS level at the CKDu affected areas	Appoint data entry operators for the MOH and RDHS level in the affected areas
3.2.1 Ensure adequate number of MO Renal to all institutions with dialysis facilities in high risk areas	3.2.1.1	Appointment of MO Renal to all institutions with dialysis facilities in high risk areas		
			Inadequate number of medical officers in the dialysis units	Need to provide more doctors to the dialysis units
3.2.2 Ensure adequate number of nursing staff to all institutins in high risk areas	3.2.2.1	Appointment of nursing staff to all institutions in high risk areas	Inadequate number of nurses officers in the dialysis units	Need to provide more nurses to the dialysis units
3.2.3 Ensure adequate number of MLT to all institutions in high risk areas	3.2.3.1	Appointment of MLT to all institutions in high risk areas	Severe shortage of MLTs	Train and provide more MLTs to the CKDu affected areas
3.2.4 Ensure adequate number of VPs to all institutions in high risk areas	3.2.4.1	Appointment of VPs to all institutions at the level of base hospitals and above in high risk areas	Inadequate amount of Nephrologist/ VP in the CKDu affected areas (above the BH level)	Fill the vacancies for the Nephrologist/VP in the CKDu affected areas (above the BH level)
3.2.5 Ensure adequate number of dispensers/ pharmacists to all institutions in high risk areas	3.2.5.1	Appointment of dispensers/ pharmacists to all institutions in high risk areas	Inadequate dispensers/ pharmacist in the institutes in the CKDu high risk areas	Fill all the vacancies of pharmacist/dispensers in the institutes in the CKDu high risk area
3.2.6 Ensure adequate number of human resources for data management	3.2.6.1	Appointment of human resources for data management in all curative institutions in high risk areas	Shortage of data entry operators at curative care level	Need to appoint more data entry operators for the health institutes to improve the CKDu surveillance
3.3 Human resources needs to be	3.3.1	Conducting assessment of human	No such analysis has	Human resource needs to be

assessed and analyzed		resources	been performed	assessed.
3.4 Development of expert resource group at central, provincial and District level for continuing education for health and other sector staff	3.4.1	Development of expert resource group at central, provincial and District level for continuing education for health and other sector staff	Inadequacy of such groups	Need to set up such expert groups at all the levels.
3.5 Development of continuous professional development (CPD) center for CKD/CKDu in provinces	3.5.1	Development of continuous professional Development (CPD) center for CKD/CKDu in provinces	No such center in the province	Need to establish such centers
3.6 Develop and implement training packages and manuals	3.6.1	Develop and implement training package and manuals for CKD/CKDu screening guidelines and procedures	Non-availability of the screening manual	Screening manual is published by the ministry of health
		Develop and implement training packages and manuals for CKD/CKDu management	Training manual for medical officers is not available.	Provide such manual.
		Develop and implement training packages and manuals for data management of CKD/CKDu patients	No such training is available	Need to have such training manual
		Develop and implement training packages and manuals for palliative care for CKD/CKDu care giver	Palliative care training manual is not available	Need to have such training manual
3.7 Ensure opportunities for international training	3.7.1	Provide abroad training and exposure for all the categories of staff in relevant areas	No such training.	It is very essential to conduct such training.
Strategic Area 4: Surveillance of CKD/CKDu patients				
4.1 Establish sentinel sites in CKDu high risk hospitals	4.1.1	Establish sentinel sites in CKDu high risk hospitals	There are problems with the established sentinel sites	Need to supervised the sentinel sites regularly
	4.1.2	Identify new areas affected by CKD/CKDu using the surveillance system	Inadequate number of sentinel sites to cover the entire high risk area	15 new sentinel sites were identified
4.2 Develop and implement a web based information system	4.2.1	Develop a web based information system	Patient data are not easily accessible	Web based information system is important in CKDu data collecting, compiling and sharing
4.3 GPS mapping of high prevalent CKDu areas to coordinate with other determinants of CKDu	4.3.1	Provide necessary equipment and facilities such as GPS, vehicles and stationeries for the ground level officers	Inadequate human resources to do the GPS mapping	Recruit new carder to do the GPS mapping of the CKDu patients or outsource to a third party.
			Inadequate equipment for GPS mapping and software for the special data analysis	Provide equipment for GPS mapping and software
	4.3.2	GPS mapping of CKDu areas to share information with other sector to correlate determinants	Inadequate human resource for GPS mapping to the CKDu patients.	Need to improve the human resources for GPS mapping activities.
Strategic Area 5: Community Empowerment				
5.1 Strengthen of facilities for motivational interviews of individuals and families	5.1.1	Train both field institutional health staff on motivational interviews	Inadequate training on motivational interviews to the field staff	Provide more training to the field staff on motivational interviews.

5.2 Establish community leader groups in every affected villages/ GSN divisionas to change the behaviors of the community	5.2.1	Establish community leader groups in every affected villages/GSN divisions/ institutions to change the behaviors of the community people	Limited community groups available.	Need to establish such CKDu support groups in every village in high risk areas.
	5.2.2	Establish a monitoring system for community empowerment	No monitoring system established to monitor the community empowerment	Set up a monitoring mechanism for the community empowerment
	5.2.3	Commencing of a mass scale education programme for specific target groups such as school children, farmers, institutional staff to inculcate positive behaviors	No mass scale coordinated education programmer on CKDu	It is very essential to set up such education programmer urgently.
5.3 Strengthening of behavioral changes	5.3.1	Train both field institutional health staff on education and counseling	Field health staff is inadequately trained on counseling	Train field health staff on counseling methods
	5.3.2	Develop skills of health and other staff how to empower the groups	Field health staff is inadequately trained on how to empower groups	Train field health staff on how to empower groups
	5.3.3	Development of communication materials	Inadequate availability of communication materials	Develop more communication materials
	5.3.4	Conduct a media campaign	Unavailability of Mass scale media campaign to change the undesirable behaviors in the society which aggravates the CKDu progression	Mass scale media campaign is essential to change the undesirable behaviors in the society which aggravates the CKDuprogression
Strategic Area 6: Inter – Sectoral Collaboration				
6.1 Establishment of Renal Disease prevention and Research Authority	6.1.1	Establishment of Renal Disease prevention and Research Authority	No such authority has be established yet.	Need to established soon
6.2 Strengthening of inter-sectoral committees	6.2.1	Conduct Inter-sectoral meetings at Divisional, District, Provincial and central levels regularly	Inadequate inter – sectoral committee meetings at all the levels.	Strengthen the inter-sectoral collaboration through regular meetings.
	6.2.2	Strengthening of community support groups	No system in place to strengthen the community support groups	Need to set up such mechanism
Strategic Area 7: Strengthen evidence based management				
7.1 Identification of priority operational research areas	7.1.1	Operational research to identify better marker for early diagnosis	Early identification of CKDu is important in patient management.	More resource should bedevoted to identify better marker for early diagnosis
	7.1.2	Operational research on peritoneal dialysis	Feasibility of home based peritoneal dialysis is an area of research interest.	There is an ongoing research by Nephrology unit, TH Kandy on the feasibility of home based peritoneal dialysis
	7.1.3	Development of resource group for research	No such resource group	Establish such group

	7.1.4	Development and submission of abstracts and journal articles on CKDu research	No such system in place	Set up a system to encourage researchers
7.2 Establishment of a fully functional research center at TH Kandy/TH Peradeniya	7.2.1	Establish a research center at TH Kandy		Center has been established in Kandy
7.3 Strengthening of capacity of MRI to undertake analysis of heavy metals, other nephrotoxic substances and other contaminants injurious to health such as DCD, Melamine etc.	7.3.1	Strengthening of capacity of MRI to undertake analysis of heavy metals, other nephrotoxic substances and other contaminants injurious to health such as DCD, Melamine etc.	Inadequate capacity of the MRI lab to function in full scale	Need to strengthen the capacity of the MRI lab.
Strategic Area 8: Welfare of CKD/CKDu patients				
8.1 Provision of financial assistance to CKD/CKDu patients	8.1.1	Provision of financial assistance to CKD/CKDu patients	Still the process is not happening properly in some places	Need to be supervised regularly.
	8.2.1	Provision of temporary lodging facilities with meals for patients and their bystander	Unavailability of temporary homes for the CKDu patients and their bystander to stay near the hospital till they get their turn for dialysis.	Establish such transient homes near every dialysis center
	8.2.2	Facilitate transport from the peripheral hospitals to centers	Inadequate transport facilities for CKDu patients from rural hospitals to dialysis center.	Provide transport facilities for poor and needy patients who are visiting for dialysis or hospital clinics
8.3 Establishment of social service units in Teaching Hospitals and Base Hospitals in CKD/CKDu affected areas	8.3.1	Establishment of social service units in Teaching Hospitals and Base Hospitals in CKD/CKDu affected areas	No such units established	Set up such units in main hospitals in the CKDu affected areas.

Program title	Anti Filariasis Campaign
Focal point	Director / Anti Filariasis Campaign
Back ground/ situation Analysis *(Problem Analysis)	<p>Worldwide, filariasis is the commonest cause of Lymphedema in humans. In Sri Lanka parasites of lymphatic filariasis are: <i>Wuchereria bancrofti</i> and <i>Brugia malayi</i>. Majority of microfilaria positive cases were due to <i>wuchereria bancrofti</i></p> <p>Filariasis is endemic in eight districts (Colombo, Gampaha, Kalutara, Kurunegala, Puttalam, Galle, Matara and Hambantota) in three provinces (Western, Southern and North Western provinces) in Sri Lanka. Anti Filariasis Campaign (AFC) of the Ministry of Health is the main organization working for filariasis control in the country with the help of the provincial health authorities. Staffs of AFC and Regional Anti Filariasis Units (RAFUs) conduct parasitological, entomological and clinical activities.</p> <p>In 1997, following the results of advances in diagnostics and treatment of LF, WHO called all member states to work towards elimination of LF as a public health problem by 2020. Elimination was defined as a microfilaria prevalence / microfilaria rate (mf rate-% microfilaria positive persons per number of persons tested) of < 1%.</p> <p>Sri Lanka was one of the first LF endemic countries in the world to implement Mass Drug Administration (MDA) based on the WHO guidelines. Five rounds of annual MDA programs were conducted by AFC in all eight endemic districts of the country from 2002 to 2006.</p> <p>Annual mf rate in Sri Lanka is less than 1% over the past 20-30 years and with the MDA (Albendazole and DEC), mf rate was reduced significantly and mf rate in 2014 was 0.05% . Even though annual microfilaria (mf) rate in the endemic district show mf less than 1%, there are some pockets with high mf rates more than 1% especially in Galle district.</p> <p>Gap analysis:</p> <p>There is no RAFU in Hambantota. Regional anti Filariasis Unit Matara has to cover Hambantota district. But it is difficult to enroll the staff of Matara district to cover Hambantota on regular basis. Public Health Field Officers (PHFOs) are mainly involved in collection of blood to detect LF. However, PHFOs were not recruited since the year 2000 for filariasis control activities.</p>

There are only six PHFOs in Galle district and highest numbers of microfilaria positive persons are reported from Galle district. There is only one PHFO to collect blood for filariasis in Puttalam district and three PHFOs in Kurunegala district. Regional Medical Officers-Filariasis in Puttalam and Kurunegala have planned to get the assistance of PHFOs conducting malaria activities and AFC has to provide them slide boxes. In Kalutara district out of 16 PHFOs in district, 6 PHFOs are females and this creates practical problems for night blood collections. In Matara district, all the PHFOs are attached to MOOH offices and no PHFO in RAFU.

Table 1 shows the details of PHFOs in filariasis endemic districts.
(Distribution of PHFOs in endemic districts)

Unit/District	Approved cadre in the district	Available PHFOs
Anti Filariasis Campaign	2	0
Colombo (RDHS area)	35	7
Gampaha	33	7
Kalutara	20	16
Galle	13	6
Matara	16	14
Kurunegala	6	3
Puttalam	2	1
Total	127	54

Public Health Lab Technicians (PHLTs) examine the blood films and dissect mosquitoes. They were not recruited since 2006. In Galle district, there are only three PHLTs and in Puttalam only two PHLTs. A batch of about 21 PHLT students is presently undergoing training at NIHS-Kalutara.

Culex vector larva was controlled by using chemical methods by Regional Anti Filariasis Units and currently no chemical method is used by these units for culex vector larval control. Studies have to be conducted to identify proper vector control methods. In 1960s there had been programs to remove water plants (Pistia, Salvinia, Eichhornia) to control Mansonia mosquitoes (vector of Brugiama layi) and currently there are no such organized programs to remove water plants resulting the emergence of Brugiama layi infection.

Integrated Vector Control Activities need to be planned in endemic districts to prevent the transmission of filariasis.

Entomological Assistant (EAs) collect mosquitoes and most of them are involved mainly in dengue control activities. In some filariasis endemic

	<p>districts, PHFOs are also involved in dengue control activities and as a result of this filariasis control activities are affected.</p> <p>Regional Medical Officers-Filariasis need vehicles to conduct the monitoring and supervision activities and most of the units do not have vehicles allocated to their units.</p> <p>Filariasis control activities are mainly done in endemic districts and few surveys are conducted in non-endemic districts due to above limitations.</p> <p>Lymphoedema management is done at the clinics of Anti Filariasis Campaign and Regional Anti Filariasis Units. Most of the lymphedema patients attend the hospitals. It is important to expand the training of OPD doctors and nurses on morbidity management of Lymphoedema patients.</p> <p>Staffs need to be trained on lymphedema management, integrated vector management and investigation techniques.</p>
Target areas & Beneficiaries	<ol style="list-style-type: none"> 1. Persons infected with filariasis 2. Community 3. Patients with lymphedema 4. Healthcare persons
Justification	<p>Filariasis is endemic in eight districts and there are seven regional Anti Filariasis Units in seven endemic districts. In 2014, even though the mf rate was low, there were 177 microfilaria positives and 121 positives were from Galle district. As there are lesser numbers of PHFOs and PHLTs, there are areas not covered at least once a year.</p>
Important assumptions / Risks/ Conditions	<ol style="list-style-type: none"> 1. There is a good system to control filariasis in Sri Lanka 2. Government will recruit the PHFOs and allocate PHLT trainees to AFC and RAFFUs. 3. Transport facilities made available for RAFUs for effective surveillance activities <p>Risks:</p> <ol style="list-style-type: none"> 1. Patients with symptoms and high eosinophil counts are treated with DEC without doing a night blood filming/ Ag test. 2. There are hot spot areas that need to be kept under continuous surveillance especially in Galle district 3. Microfilaria positive persons and positive mosquitoes have been reported from non-endemic districts 4. Most of the <i>Brugiamalayi</i> positives recorded after 2006 are children 5. Risk of <i>Brugiamalayi</i> dogs have been reported from Sri Lanka

Vision	Filariasis free Sri Lanka	
Mission	Eliminate Lymphatic Filariasis and to prevent suffering and disabilities of affected individuals by bringing together a group of central and regional partners to mobilize financial and technical resources to ensure success.	
Goal	To eliminate Lymphatic Filariasis by interruption of transmission by 2020 and to alleviate suffering and disabilities of affected individuals	
Programmer Objectives	Indicators	Means of Verification
1. To strengthen the parasitological surveillance and control activities	No of Blood films collected Microfilaria rate	Monthly, Quarterly Annual returns of AFC and RAFUs
2. To strengthen the entomological surveillance and control activities	No. of houses examined Infected and infective rate PCR positivity rate No. of mosquitoes collected	Monthly, Quarterly Annual returns of AFC and RAFUs AFC records
3. To strengthen the laboratory facilities in AFC and RAFUs	No. of items purchased No. of labs equipped	Monthly, Quarterly Annual returns of AFC and RAFUs
4. To prevent complications and disabilities of affected individuals by morbidity management	Number of lymphedema patients newly registered No. of lymphedema patients treated per year Number of clinics centers available	
Output	Indicators	Means of Verification
1. Night blood films examined	No of Blood films examined Microfilaria rate	Monthly, Quarterly Annual returns of AFC and RAFUs, Monthly review meetings

<p>2. Antigen tested</p> <p>3. Mosquitoes examined</p> <p>4. Purchased Lab items</p> <p>5. Managed Lymphoedema patients</p>	<p>No. of persons tested Antigen rate</p> <p>No. of mosquitoes dissected infected rate infective rate</p> <p>No. of mosquito pools tested Mosquito pools positivity rate</p> <p>No. of items purchased number of filariasis labs equipped</p> <p>No. of clinic sessions conducted No. of lymphedema patients trained on management No. of staff trained on morbidity management</p>	<p>District review meetings (Biennium)</p> <p>Reports of AFC Lab</p> <p>Monthly, Quarterly Annual returns of AFC and RAFUs, Monthly review meetings District review meetings (Biennium)</p> <p>Reports of AFC lab Monthly review meetings</p> <p>AFC purchase records</p> <p>Monthly, Quarterly Annual returns of AFC and RAFUs, Monthly review meetings</p>
<p>Monitoring & Evaluation</p>	<p>Monitoring and supervision of activities by Director, Consultant, Medical Officers and Entomologist of AFC Monitoring and supervision by PDHS, RDHS and Regional Medical Officers/RAFUs Monthly, Quarterly and Annual return. Monthly and district review meetings Monitoring of expenditure by Director and accountant</p>	
<p>(*) Reference to Research</p>		

Summary of GAP Analysis

Activity Area	Equity of Distribution	Accessibility to all	Quality of Service	Financial Protection of the patient
Anti Filariasis Campaign	Anti Filariasis Units in endemic districts	Public Transport Conduct lymphedema clinics Conduct house to house/centre based investigations	Vacant PHFO areas Not adequate staff No proper chemical vector control method No proper vehicles for RAFUs	Financial support for Grade 3 or 4 lymphedema patients

Names of the officials who prepared the profile of programme

Dr A.L.Fareed (Former Acting Director / AFC)

Dr D.Mendis (Director / AFC)

Dr S.D. Samarasekara (Consultant Community Physician / AFC)

Program title	Anti-Leprosy Campaign
Focal point	Director, Anti Leprosy Campaign
Back ground/ situation Analysis *(Problem Analysis)	<p>Sri Lanka managed to achieve elimination target set by WHO by bringing down the prevalence rate to less than 1 case per, 10,000 inhabitants in the country by 1995 following the extra efforts made at that time including the social marketing campaign.</p> <p>Leprosy services which was the sole responsibility of ALC since 1954, was integrated in to general health system in 2001. At present all leprosy cases are diagnosed and treated in Dermatology clinics. ALC conducts its own daily leprosy clinic at the NHSL in Colombo.</p> <p>Following integration the role of the ALC at the central level changed to policy making, planning, monitoring, evaluation, supervision, capacity building, setting technical standards and research.</p> <p>At the district level Regional epidemiologist is the focal point while PHL Leprosy coordinates with the curative sector including Dermatologists, Medical officer's pharmacists, physiotherapists and the public health staff including MOOH, PHII to implement leprosy control activities.</p> <p>Leprosy was made a notifiable disease in 2013 to ensure prompt identification of leprosy cases among contacts and improve the follow up mechanism at the field level and to trace the defaulters more efficiently</p> <p>For the last 15 years it was observed that the leprosy new case detection rates were fluctuating around 10 per 100,000 population. There is a slight increasing trend in new case detection rates from 9.14 in 2009 to 10.4 in 2014.</p> <p>Grade 2 deformity rates which showed a downwards trend from 2001 are now fluctuating around 7% in 2014 indicating late diagnosis of the disease. Child rates have been fluctuating around 10% from 2001 and 2013 and were 9.87 in 2013 indicating ongoing transmission.</p>
Target areas & Beneficiaries	<p>Monitoring and evaluation of leprosy control activities on implementation of National plan of Action using different program indicators.</p> <p>Build and sustain partnership with partners and coordinate and solicits support for the Leprosy Program Action Plans.</p>

	<p>Training of all categories of staff on leprosy and capacity building with regard to leprosy control.</p> <p>Disease control through early detection by screening the population at risk of developing leprosy especially in the identified 12 high endemic districts with emphasis on screening activities and contact tracing.</p> <p>Providing services to all leprosy affected persons with special emphasis on rehabilitation of persons with disability.</p>
Justification	<p>Main objective of the programme is to reduce the burden of the disease and prevent occurrence of disabilities through early case detection and treatment and providing rehabilitation service to those who are in need. This will reduce the number of cases in the country as well as prevent disabilities among newly diagnosed cases.</p> <p>Currently nearly 7- 8% of patients affected with leprosy present with grade 2 disabilities at the time of diagnosis. Since it's mainly among the economically productive age group, this is a huge burden to them as well as the community. Therefore by reducing the leprosy burden and the disabilities associated with it the whole country will benefit both socially and economically.</p>
Important assumptions / Risks/ Conditions	<p>Important Assumptions:</p> <ul style="list-style-type: none"> • Ministry support for Leprosy control remains at a higher level with additional financial commitments • Well trained human resources available at central and district level • Collaboration with the provincial and District-Health authorities maintained • Sustained technical assistance from partners available • Cooperation from professional bodies is available <p>Risks:</p> <ul style="list-style-type: none"> • Trained Officers transferred out of the programme • Significant changes in the provincial council Administrative system • Persistence of inadequate facilities in the Centre for project administration
Vision	<p>Leprosy free Sri Lanka where the needs of existing persons affected by leprosy are fulfilled</p>

Mission	To provide accessible, acceptable and cost effective quality leprosy services to all persons affected with leprosy and to sustain such services to ensure reasonable quality of life to those affected.	
Goal	To prevent grade 2 deformities by provision of quality leprosy services through early detection, treatment and rehabilitation services for those who need assistance and achieve zero grade 2. Disability among child cases and to eliminate leprosy at district level in all districts by 2020.	
Programmer Objectives	Indicators	Means of Verification
	The number and rate of new cases per 100,000 population per year at district level below 1 in all districts	Individual patient forms, National Database
	The number and rate of new cases with grade 2 disabilities per 100,000 population per year reduced from 0.7 to 0.5	Individual patient forms, National Database
	Number of new child cases with disability reported per year down to zero	Individual patient forms, National Database
	Improve the percentage of early reporting up to 90%	Individual patient forms, National Database
	Treatment completion/cure rate increased to 95%	Clinic leprosy register, District leprosy register, Completed patient cards,
	Proportion of treatment defaulters reduced to 5%	Leprosy patient file, Individual patient forms, National Database
Percentage of child cases in new cases reduced to 5%	Individual patient forms, National Database	
Output	Indicators	Means of Verification
	Proportion of contacts of index cases examined up to 80%	Leprosy contact register
	Percentage of PALs educated on self-care improved up to 90%	Leprosy patient file

	<p>Percentage of persons with disability provided with satisfactory rehabilitative services improved up to 90%</p> <p>Percentage of public health and relevant curative health staff trained 75%</p>	<p>Disability register, quarterly return</p> <p>Monthly and quarterly reviews, district and provincial reviews, quarterly return</p>
Monitoring & Evaluation	<p>Monitoring and evaluation will be done at district level by regional epidemiologist. The clinic leprosy registers and individual patient forms received at the RE office and notifications received at the MOHs will be monitored for completeness and timeliness, RDHS will monitor implementation of screening and training programmes at district level</p> <p>At the central level Monitoring will be carried out by Anti Leprosy Campaign by monthly and quarterly reviews, on site visits and district and provincial reviews. Quarterly bulletins and Annual reports to disseminate information</p>	
(*) Reference to Research	<p>Department of Census and Statistics, Sri Lanka, Demographic and Health Survey 2011</p> <p>W. A.S .Settinayake and H.M.S.S.D. Herath, Leprosy Control in Sri Lanka, The Journal of the College of Community physicians of Sri Lanka Millenium Supplement, 63</p> <p>De Silva, D.M. Health progress in Sri Lanka: a survey. Colombo Ministry of Health , 1956</p> <p>World Health Organization, 2009, Enhanced Global Strategy for Further Reducing the Disease Burden Due to Leprosy operational Guidelines (Updated) (SEA – GLP – 2009.3)</p> <p>World Health Organization, 2009 Enhanced Global Strategy for Further Reducing the Disease Burden due to Leprosy plan period: 2011-2015 (SEA – GLP – 2009.3)</p> <p>National strategy got reducing the disease burden due to leprosy and enhancing quality of leprosy services 2011-2015</p> <p>National action plan for leprosy control of leprosy 2014-2016 Annual Report 2013 Anti-Leprosy Campaign</p>	

Program title	Health Education and publicity
Focal point	Director / Health Education Bureau
Back ground/ situation Analysis *(Problem Analysis)	<p>Health Education Bureau (HEB) is the Centre of excellence in Sri Lanka for health education, health promotion and publicity of information pertaining to health promotion. The Vision of the Health Education Bureau (HEB) is to promote and foster a healthier nation which contributes to an economically and socially productive country. The mission is to promote the health of the people through sectoral and intersect oral advocacy for health education/ promotion in all policies and evidence- based communication interventions through a decentralized system. Empowering and mobilizing communities for the improvement of their quality of life through health promotion principles is the goal the improvement of their quality of life through health promotion principles is the goal of the organization and the main achievement gained over the period.</p> <p>HEB conducts activities under seven main program objectives.</p> <p>Program objectives</p> <ol style="list-style-type: none"> 1. Developing, implementing and evaluating plans, technical guidelines, training modules and strategies pertaining to health promotion. 2. Advocacy on health promotion for policy changes 3. Communication for public awareness and behavior change leading to health promotion 4. Developing health education materials 5. Developing health promotion settings 6. Capacity building on health promotion of health care personals and others who are involving or interested in health 7. Research on health promotion. <p>Developing communication strategies on Nutrition, Non communicable Diseases (NCD) prevention and Reproductive health by HEB provides technical guidelines and common objectives to be achieved by different sectors and assures integrated multi- sectoral approach in health promotion.</p> <p>Advocacy is one of the main communication strategies performed by the HEB at various levels for different stake holders aiming policy changes that lead to health promotion and well-being of the people. As Sri Lanka is in a phase of rapid industrialization, HEB advocates and have become partners</p>

	<p>in urban development and town planning to build health infrastructure and environment for the people. As a whole, HEB does advocacy for <i>health in all policies; consider health of the people in all activities</i>.</p> <p>Public awareness aiming life style modification towards good health in the community through mass media is a unique service that has been providing for years by HEB and appraised by all sectors. Regularly, resource personals from HEB make the public aware about emerging health issues and healthy practices through the media. Apart from that, HEB interviews resource personals and coordinates health education programs between media and relevant resource personals. Every year, HEB conducts about 20 media advocacy seminars for media personals on current health issues and days based on particular health issues. Apart from that, HEB plays a vital role in public awareness about emerging health problems, health promotion and healthy behavior changes by actively participating mass scale health exhibitions, national campaign days and community events. Another unique and an innovative way of reaching people is e-health. Accordingly, public has the access to suwadariya. Gov.lk website and 24/7 round the clock 0170107107 hot line. It provides fast and simple expert advice in all three languages about any health issue and what to do next through telephone calls, e mails or Skype and supported by tri lingual suwasariya. Gov.lk website which contains a lot of information about health. Statistics reveal that many people both in Sri Lanka and overseas utilize these facilities and the number of clients steadily increasing.</p> <p>Various types of health education materials, both printed and electronic have been produced over the period to address health issues such as Dengue, Chronic Kidney Disease, basic hygiene related health problems, nutrition, alcohol and tobacco prevention, non-communicable diseases and emerging health issues. Further, it is planned to develop communication materials and a communication network to address common and recurrent crisis/ disaster situations and anticipating in the future.</p> <p>Developing households and public places as hospital, preschool, school, villages, towns, work place etc. as health promotion settings is another successful program conducts by HEB and appreciated by all parties. Establishing Mothers' Support Groups (MSG) at village levels is an example for a successful community based program conducting under the guidance of HEB. These Mothers' Support Groups provide leadership and work cordially with other sectors and the community towards the improvement of nutrition status and wellbeing of the children and families. Apart from that, HEB conducts specifically designed nutrition improvement program for vulnerable groups like estate community with the support and appreciation from other sectors. HEB has initiated an innovative program to address smoking and alcohol issue among youth through developing life skills (how to overcome challenges successfully in day to day life) and received very impressive feedback. Moreover, HEB implements</p>
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	<p>communication strategy on Reproductive health to deliver scientific knowledge about the subject while addressing the myths and wrong information.</p> <p>Routinely, HEB provides well-structured continuous in service training on health promotion and communication for health care staff and other personals involved or interested in health. HEB conducts undergraduate and postgraduate training on health promotion, communication and life style modification. Further, HEB provides technical consultation for advisory committees, consultative meetings, workshops, research and surveys and very often invited by other public organizations to share its expertise, Research has conducted and published on health promotion preschool development and it has been used to advocate stakeholders to follow the same in their settings.</p> <p>In the future, HEB will play a main role through integrated multidisciplinary approach to address socio health issues like child abuse, violence, injuries, disaster situations, suicide, psychological issues, health of differently able groups, environment health, occupational health and safety and spiritual wellbeing etc.</p> <p>Further, collaborative actions will be taken to promote parenting skills and training on life skills for preschool teachers, school teachers, adolescents, parents of young children, youth leaders etc. HEB will act as a technical focal point on communication for health, health promotion and health education material development. Counseling network will be developed with other relevant partners to provide efficient service for clients and share professional expertise. In the presence of changing socio – economical, epidemiological and demographic context, HEB will develop private public partnership at local and global levels to share experiences on health promotion.</p> <p>There are already planned activities to be conducted in the future that would be milestones in the public health sector in Sri Lanka. They are e-learning, e-surveillance, m-health (mobile health) and involving social media for health communication etc. E-learning is a Distance Learning Management System (DLMS) for public health workforce across the country. It will link them and facilitate to update their knowledge in emerging health information while utilizing it for public awareness. In the future, currently available paper based health promotion surveillance system will be converted to an automated electronic surveillance system (e-surveillance) which will provide reliable, accurate information on time for rapid action and feedback. As a part of e-surveillance, behavior surveillance system will be established to verify the actual healthy practices and behavior changes existing in the community. Further, mobile phone, the most common personal communication equipment in Sri Lanka will be utilized for health education and to provide personalized health</p>
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	<p>information to clients (m-health). Health education materials available in social media will facilitate to share health information among clients and between clients and health professionals. HEB will promote to conduct research on health promotion with multi-sectoral collaboration.</p> <p>Major expansion of infrastructure includes construction of a new 7 storied communication resource Centre with in-built modern technology, e-library, studio and ICT facilities.</p> <p>As a whole, HEB has been successful and received recognition for its remarkable contribution for health promotion in Sri Lanka through integrated multidisciplinary approach.</p>	
GAP ANALYSIS by using UHC tool		
Target areas & Beneficiaries	<ol style="list-style-type: none"> 1. Improve knowledge, attitudes and practices among the people towards healthy life style through appropriate interventions 2. Life style modification of the people to achieve good quality of life 3. Address specific socio-health issues among high risk and socially disadvantaged groups and how to overcome them 	
Justification	Health promotion is considered as the highly cost effective strategy to address socio health issues leading to life style modification through integrated multidisciplinary approach	
Important assumptions / Risks/ Conditions	<ol style="list-style-type: none"> 1. All sectors at all levels will work and support together to achieve common objectives in improving health of the people 2. Time taken to see the results and benefits of health promotion in terms of reduction of morbidity, mortality and improvement in quality of life 	
Vision	To promote and foster a healthier nation which contributes to an economically and socially productive country.	
Mission	To promote the health of the people through sectoral and inter sectoral advocacy for health education/ promotion in all policies and evidence-based communication interventions through a decentralized system	
Goal	Empowering and mobilizing communities for the improvement of their quality of life through health promotion principles	
Programmer Objectives	Indicators	Means of Verification
<ol style="list-style-type: none"> 1. Developing, implementing and evaluating plans, technical guidelines, training modules and strategies 		

<p>pertaining to health promotion</p> <ol style="list-style-type: none"> 2. Advocacy on health promotion for policy changes 3. Communication for public awareness and behavior change leading to health promotion 4. Developing health education materials 5. Developing health promotion settings 6. Capacity building on health promotion of health care personals and others who are involving or interested in health 7. Research on health promotion 		
<p>Output (Please prepare separate indicators for each output)</p>	<p style="text-align: center;">Indicators</p> <p>P.O.1</p> <ul style="list-style-type: none"> • Number of plans, technical guidelines, training modules and strategies pertaining to health promotion developed/year • Number of Health promotion review programs conducted at central and regional level/ year • Number/ % of different categories of people practicing healthy behaviors <p>P.O. 2</p> <ul style="list-style-type: none"> • Number of advocacy programmers 	<p style="text-align: center;">Means of Verification</p> <ul style="list-style-type: none"> • Annual action plans, quarterly/ annual progress review reports/ meetings of HEB, circulars, launching events • Annual action plans, quarterly/ annual progress review reports/ meetings, quarterly health promotion return from Regional Director of Health Services (RDHS) • Behavior surveillance • Annual action plans, quarterly/ annual progress review reports/

	<p>conducted/ year</p> <p>P.O. 3</p> <ul style="list-style-type: none"> • Number of media advocacy seminars conducted/ year • Number of national level mass communication programs/ events conducted/ year • Number of media programs/ events (printed, radio, TV, web) that HEB participated as expert resource/ year <p>P.O.4</p> <ul style="list-style-type: none"> • Number and types of health education materials developed on different health topics/ year <p>P.O. 5</p> <ul style="list-style-type: none"> • Number and different types of settings developed/ year <p>P.O. 6</p> <ul style="list-style-type: none"> • Number and different types of training programs conducted/year 	<p>meetings of HEB, quarterly health promotion return from RDHS, Acknowledgements from service recipients</p> <ul style="list-style-type: none"> • Annual action plans, quarterly/ annual progress review reports/ meetings of HEB, Number of printed and electronic media reporting articles on relevant topics, performance appraisal events for media • Annual action plans, quarterly/ annual progress review reports/ meetings of HEB, media reports • Annual action plans, quarterly/ annual progress review reports/ meetings of HEB, media reports <ul style="list-style-type: none"> • Annual action plan, quarterly/ annual progress review reports/ meetings of HEB, quarterly health promotion return from RDHS • Annual action plan, quarterly/ annual progress review reports/ meetings of HEB, quarterly health promotion return from RDHS • Annual action plan, quarterly/ annual progress review reports/ meetings of HEB, quarterly health promotion return from RDHS
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	<ul style="list-style-type: none"> Number of trained personals from different sectors/ year <p>P.O. 7</p> <ul style="list-style-type: none"> Number of research conducted by/ with technical support of HEB 	<ul style="list-style-type: none"> Research presentation at scientific sessions Research publications in journals Quarterly/ annual progress review reports/ meetings of HEB
Monitoring & Evaluation	<ol style="list-style-type: none"> Quarterly and annual physical and financial progress review reports/ meetings of HEB Quarterly health promotion return from RDHS Quarterly and annual health promotion review at district/ provincial level Annual Health Bulletin 	
(*) Reference to Research	<ol style="list-style-type: none"> Ottawa Charter for Health promotion, 1986 The Health promotion strategic framework, Ireland Milestones in health promotion statements from global conferences, WHO, 2009 National Policy on Health Promotion, Health Education Bureau, Ministry of Health, Sri Lanka, 2010 	

National Health policy and strategic framework – 2017 and beyond
GAP analysis by using universal health coverage tool – Health Education Bureau

Activity area	Equity of distribution	Accessibility to all	Quality of service	Financial protection of the patient / public
1. Developing, implementing and evaluating plans, technical guidelines, training modules and strategies pertaining to health promotion	Ensuring all common health issues present in whole population are addressed	Through decentralized system to reach grass root level	Evidence – based interventions, accreditation mechanism	Allocations from GoSL, donor agencies; WHO, UNICEF, UNFPA, World bank, I/NGOO etc., Corporate Social Responsibility (CSR)

2. Advocacy on health promotion for policy changes	Advocacy for health sector and other sectors interesting or involved in health	Through sectoral and intersectoral advocacy for health in all policies	Evidence – based interventions, standards for advocacy	Allocations from GoSL, donor agencies; WHO, UNICEF, UNFPA, World bank, I/NGOO etc., (CSR)
3. Communication for public awareness and behavior change leading to health promotion	Through interpersonal and group communication, mass media, through web based (e-health, e-learning, social media) and mobile phone (m – health)	Through health care workforce and health promotion community resource groups, 24/7 round the clock to whole public, clients receive personalized health information to mobile phones (m-health)	Reliable services provided by health professionals	Allocations from GoSL, donor agencies; WHO, UNICEF, UNFPA, World bank, I/NGOO etc., (CSR), Social media utilization
4. Developing health education materials	Distributing health education materials across the country according to a distribution plan	Through health care staff, community support groups,, trained other personals in other sectors on health promotion	Appropriate communication materials addressing current health issues in line with changing socioeconomic, epidemiological and demographic context	Allocations from GoSL, donor agencies; WHO, UNICEF, UNFPA, World bank, I/NGOO etc., (CSR) Social media utilization
5. Developing health promotion settings	Establishing minimum number of different settings in each MOH/ GN level	Through advocacy, community empowerment and mobilization	Criteria for health promotion settings	Health promotion been an agenda in all sectors with a budgetary allocation
6. Capacity building on health promotion of health care personals and others who are involving or	Developing health promotion resource groups at different levels in different sectors	People can reach resource groups freely	Training manuals/ protocols on communication and health promotion	Allocations from GoSL, donor agencies; WHO, UNICEF, UNFPA, World bank, I/NGOO etc., (CSR)

interested in health				
7. Research on health promotion	Developing partnerships with other sectors	Present research findings at scientific sessions, publish research findings in journals, Disseminate research findings to the public through mass media etc.	Approval by ethical review committees	Allocations from GoSL, donor agencies; WHO, UNICEF, UNFPA, World bank, I/NGOO etc., (CSR)

Program title	Improvement of standard of maternity care in Sri Lanka
Focal point	Director General of Health Services
Proposal submitted by	Sri Lanka College of Obstetricians & Gynecologists
Back ground/ situation Analysis *(Problem Analysis)	<p>Reduction of maternal mortality during the last few decades are attributable to numerous co-beneficial factors, which range from well-trained primary health care worker at community level backed by a strong vibrant institutional network. Equally the political commitment, free access to health and education at all delivery points, high female literacy level, social welfare benefits, and shift from home to institutional deliveries by trained staff also has had synergistic effect on the success.</p> <p>In this context it is not prudent to compare Sri Lankan statistics with regional countries who lack this basic infrastructure with high maternal mortality rates. It is timely to reflect Sri Lankan statistics with developed countries to aim improvement in quality and standards.</p> <p><u>Although Sri Lanka has achieved remarkable success in reducing maternal mortality the harsh reality behind is still 120-150 women die annually in the country. This has dampened our ambitious goal of achieving MDG- 5 in year 2015. Majority of these deaths (60-70%)are preventable. Therefore it is high time Sri Lanka should adopt a novel strategy with new vision to address this preventable maternal deaths.</u></p> <p>The post 2015 sustainable development goals (SDG) adopted by UN this year present a challenge to all developing countries to transform the present health system in to a high quality system by year 2030. Therefore Sri Lanka should analyze the present predicament and institute radical thinking to develop a strategic plan to improve quality and safety.</p>
Target areas & Beneficiaries	<p>In developing the intrapartum care strategic plan three important factors have been taken in to account.</p> <ul style="list-style-type: none"> • Patients who use the services • Professionals who deliver the services • Commissioners and policy makers

<p>Justification</p>	<p>Against this backdrop of service failures, not achieving the standard targets and increasing demands by the client (patient), radical rethinking of the current organization and configuration of maternity care is required. Unless the government adopt a policy of monitoring the delivery services, expected standards will not be achieved. Introduction of a governance system with accountability at all levels is the way forward.</p> <p>The present maternity services in the country will only responds to deal with emergencies in an ad hoc manner and lacks sustainability. A clinical governance process will make the services more proactive in preventing complications. It will also form a network with accountability. System will be strengthened with a process of sustainability. The objective of the proposed system is to shift the current standards of care to the expected national standards.</p> <div data-bbox="516 756 1453 882" style="text-align: center;"> <pre> graph LR A[Present labour room standards] -- "Clinical governance + Accountability" --> B[Envisaged standards] </pre> </div> <p>Commissioning maternity care through a managed clinical governance process with facilitate better coordination, standardization of delivery and improve clinical Outcome.</p> <p>Benefits of clinical governance is multifaceted. This is illustrated in Box 1.</p> <div data-bbox="511 1228 1453 1753" style="border: 1px solid blue; background-color: #e6f2ff; padding: 10px;"> <p>Box 1: Benefits of a clinical governance process</p> <ul style="list-style-type: none"> • Will make maternity care multi-professional • Co-dependent specialities in provision of maternity care (cardiology, anaesthesia, emergency medicine) will provide appropriate useful skills and competence to ensure quality • Care will be evidence based and services will be commissioned using the SLCOG guidelines and standards • Quality of care in the institutions will be monitored against national standards • The gap between inequality of care among different institutions in the country will be minimised • Clinical governance will provide a sustainable management network </div>
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Important assumptions / Risks/ Conditions	<ol style="list-style-type: none"> 1. Improving national standards of intrapartum care will reduce maternal morbidity and mortality 2. Clinical governance process will raise the current standards of care to envisaged national standards 3. It will promote the carers to provide multidisciplinary input to the total care 4. The system will function in a non-blamed environment 5. It will promote partnership between different stakeholders 	
Vision	To reduce maternal morbidity and mortality in Sri Lanka	
Mission	To improve intrapartum care by identified national standards	
Goal	<ol style="list-style-type: none"> 1. Partograms to be maintained in all hospitals 2. Active management of third stage in all hospitals 3. To reduce prolonged labour and sepsis 4. Reduce postpartum haemorrhage 	
Programmer Objectives	Indicators	Means of Verification
<ol style="list-style-type: none"> 1. To add a new clause in quality and safety to the present health act 2. To make practice of clinical governance statutory in all hospitals 3. System of accountability in management to be established 4. Deficiencies to be identified as system failures not as individual failures 	<ol style="list-style-type: none"> 1. Percentage of partogram usage in the country 2. Percentage of active third stage management in the country 3. Institutional auditing and national auditing to be conducted on the standards 4. Identifying audit indicators to assess deficiencies in the system 	

Output	Indicators	Means of Verification
<ol style="list-style-type: none"> 1. Reduction of maternal morbidity 2. Reduction of maternal mortality 3. Reduction of sepsis 4. To increase satisfaction among mothers who use the service 5. Verifications to be done by audits and research at institutional and national level 		
Monitoring & Evaluation	<ol style="list-style-type: none"> 1. Institutional monitoring and evaluation through director of the institution 2. Regional monitoring and evaluation through provincial director and regional director of health services 3. Central monitoring, analysis and evaluation by central maternal directorate 	
(*) Reference to Research		

Program title	Rabies Control Programme
Focal point	Director / Public Health Veterinary Services
Back ground/ situation Analysis *(Problem Analysis)	During last three decades, it was possible to reduce human rabies deaths from 377 to 19 in 2014. Dog rabies vaccination has been increased gradually to 1.5 million in 2014. Dog sterilization programme has also been conducted since 2008 in all provinces to control the dog population. However, dog rabies still remains at low endemic level and there is a risk of reemerging.
GAP ANALYSIS by using UHC tool	
Target areas & Beneficiaries	Dog rabies elimination Entire Sri Lankan population will socially as well as economically be benefitted.
Justification	Dog rabies elimination will provide tremendous social and economic benefit by preventing rabies threat to the community in Sri Lanka and cost of post Exposure Treatment.
Important assumptions / Risks/ Conditions	<p>Dog rabies elimination will get priority with provision of adequate logistics and man power. By all provincial authorities and relevant stakeholders such as animal production and Health services.</p> <p>Rabies is already a neglected tropical disease and other sensitive diseases may compete with rabies during prioritization of control effort.</p> <p>Provinces must recruit 1 animal vaccinator per 50,000 of population, 1 stray vaccinator per 100,000 populations and 1 Animal unit controller per 150,000 populations.</p> <p>Adequate vehicles to transport the staff to the vaccination centers should be provided.</p>
Vision	Assure maximum protection to public from deadly rabies and other zoonotic diseases causing disability

Mission	Monitor, promote and facilitate implementation of Rabies control strategies stipulated by the Ministry of Health to reach high coverage involving provincial health services whilst ensuring high community effort and promotion of rabies post exposure treatment involving government hospitals whilst ensuring cost effectiveness	
Goal	Elimination of Rabies from Sri Lanka by 2020	
Programmer Objectives (Please prepare separate indicators for each objective) <ol style="list-style-type: none"> 1. To establish herd immunity in animal reservoirs with special emphasis on dogs 2. To ensure protection for those exposed to suspected rabies infection 3. To control the population of animal reservoirs with special emphasis on dogs through appropriate methods 4. To sustain the achieved vaccination coverage among dog population 5. To promote collaborative rabies control by involving partner organizations through one health approach 6. To update the knowledge of curative and preventive staff on rabies control 	Indicators	Means of Verification
	Dog Vaccination coverage	Monthly returns on dog vaccination
	Number of ARV vials issued Number of ERIG/HRIG vials issued	Monthly vaccine returns
	Number of female dogs underwent surgical sterilization	Monthly returns on surgical sterilization of female dogs
	Number of districts covered with mop-up programmers	Monthly returns on dog vaccination Review of mop up programmers
	Number of steering committee meetings conducted	Minutes of meetings conducted
	Number of joint technical committee meetings conducted	
	Number of PET training programmers conducted	Training reports
	Number of in-service training programmer	
	Number attended for each training programme	

Output (Please prepare separate indicators for each output)	Indicators Human Rabies Deaths Incidence of human rabies per 100,000 population	Means of Verification Human rabies death surveillance reports
Monitoring & Evaluation	By conducting quarterly review meeting with District Rabies control PHII. By preparing quarterly and annual reports Through conducting field surveys and laboratory surveillance	
(*) Reference to Research	<ol style="list-style-type: none"> 1. Harischandra, P.A.L. Pimburage, R.M.S. Gunatilake, M. Jayasinghe, D.N. Balasuriya, A. Amunugama, R.M.S. An evaluation of dog anti-rabies immunization coverage and knowledge of people on rabies in Sri Lanka; <i>Jouranal of Sri Lanka veterinary Association</i>, 2014. 2. Sunny, E. Townsend, I. Putu S, Pudjiatmoko, Gusti N.B. Eric B. Designing programs for eliminating canine Rabies from Islands: Bali, Indonesia as a Case Study <i>Neglected Tropical Diseases</i>. Aug 2013; 7(8): e2372. 	

GAP ANALYSIS by using UNIVERSAL HEALTH COVERAGE tool

Activity Area	Equity of Distribution	Accessibility to all	Quality of service	Financial Protection of the patient
1. Immunization of all dogs (domestic, community and stray) through mass vaccination campaigns to achieve 75% coverage.	A vaccination team for each District is available. A vaccination center is established at every 1Km	Vaccine centers can be accessed by walking, by bicycles or three wheelers	Regular mass vaccination campaigns are not possible due to limited number of vaccinators and inadequate transport facilities.	Free service
2. Provision of appropriate	Post Exposure Treatment from	Public transport Three wheelers	Lack of trained of MOs and NOs	Available as a free service

post exposure treatment for animal bite victims	Teaching Hospital up to District Hospital level is available		Lack of dedicated PET clinics in hospitals	in almost all the government hospital as 24/7
3. Sterilization of female dogs through surgical methods	Funds are distributed to all the Districts A sterilization center is available at every 6Km	Sterilization centers can be accessed by walking, by bicycles or three wheelers	Regular programmes are not possible in every PHI areas due to inadequate funds	Free sterilization of dogs and vaccination

Programme Title	Quarantine Unit
Focal Point	Director-Quarantine
Background	<p>The main objective of this unit is to protect people of Sri Lanka from disease threats of international spread. The main functions of the units include implementation of Quarantine and prevention of diseases ordinance of 1897, and International Health Regulations (IHR- 2005).</p> <p>Airport Health Office, Bandaranayake International Airport (BIA) Katunayake, Port Health Office, Colombo Harbor, Office of the Assistant Port Health Officer, at MRI(vaccinations only), Port Health Office at Galle, Port Health Office at Rajapaksha International Port-Hambantota are carrying out the disease detection , reporting , emergency preparedness activities at the point of entries(POE) under the guidance of this unit. New units were established in Airport Health Office, Mattala and Port Health Office at Trincomalee harbor.</p>
Target areas and beneficiaries	<p>Ensure the maximum security against the international spread of diseases, with the minimum interference with world traffic and trade.</p> <p>Entire Sri Lankan population will socially and economically be benefitted</p> <p>All travelers to Sri Lanka</p> <p>All people living in the region and in turn all world population</p>

Important Assumptions/Risks/Conditions	<p>Sri Lanka together with 193 other WHO member countries is legally bound to implement IHR 2005. Supposed to fulfill basic core capacity development by 2016.</p> <p>All POEs and their administration are under other institutions. Carrying out of developments and procedures are sometimes difficult as they are under other ministries. That has been identified as a limitation in some developments.</p> <p>Lack of certain infrastructure facilities in POEs, Lack of logistics – (egDedicated ambulance to transfer ill travelers to designated hospitals),Inadequacy of the information system and training of central level and POE staff regarding IHR and other current affairs has been identified as certain gaps.</p>	
Vision	Country free of international spread of diseases.	
Mission	Effectively protecting, preventing and controlling of possible entry of diseases or an event with public health risks to Sri Lanka without causing significant disturbance to international traffic and trade.	
Goal	Aim to ensure the maximum security against the international spread of diseases, with the minimum interference with world traffic and trade. This includes the measures to be adopted for preparedness and response during a public health emergency of international concern (PHEIC) or in a situation which might lead to a PHEIC.	
Program Objectives	<p>Objectives</p> <p>To strengthen POE to prevent a possible entry of diseases concern with international spread in complying with IHR 2005</p> <p>To strengthen the surveillance system effectively detecting the disease threats and other health hazards at the point of entry (POE)</p> <p>To establish and develop health and notification and information system at point of entry which links with the National</p>	<p>Verifications</p> <p>Fulfillment of core capacity development according to IHR2005 requirements. Core capacity development assessment according to IHR assessment procedure</p> <p>Number of surveillance report submitted / estimated number in a quarter /number of Ship sanitation certificate issued / total ships per quarter</p> <p>Availability of information system</p>

	<p>surveillance system.</p> <p>To strengthen the legal framework including the issues related to public health emergency of international concern (PHEIC) to the Quarantine Act</p> <p>To train public health staff on boarder health security and IHR</p> <p>To conduct operational research related to IHR</p> <p>To improve the communication and corporation with WHO and members states.</p>	<p>Availability of legal Amendments</p> <p>Number of training programs conducted / number planned</p> <p>Number of operational research carried out / planned</p> <p>Availability of Web Site/IHR implementation status</p>
Monitoring and evaluation of the program	<ol style="list-style-type: none"> 1. Monthly report of activities of POEs 2. Field visits to POE by the director / CCP 3. Quarterly review of POEs by the unit 4. Evaluation of report POE using the WHO format - annually 	
References and Research	<p>National Civil Aviation Public Health Emergency Plan, the Template provided by International Civil Aviation Organization (ICAO) and Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA), together with Standard Operating Procedures (SOPs) for POEs in Sri Lanka by the Ministry of Health, PHECP for Seaports in Sri Lanka prepared by Ministry of Health and PHECP prepared by the Sri Lanka Civil Aviation Authority of (CAA)</p>	

Program title	Migration Health & Development
Focal point	Director - Quarantine & Director – Organization Development
Back ground/ situation Analysis *(Problem Analysis)	<p>Migration is a significant feature of Sri Lankan society and economy in terms of the numbers involved and the beneficial contribution to the country. Sri Lanka recognizes that access to health is a right and one that is critical families throughout the migration cycle. Thus the negative health outcomes of migration have an effect on the individual migrant, cause social and economic burden on sending and host communities and have repercussions for families left behind and the wider community.</p> <p>The National Migration Health Policy stems from Sri Lanka's overall vision for the protection of rights of all migrant populations, as part of the country's vision for development. With the acceptance of this National Migration Health Policy, Sri Lanka aims at placing the migrant health agenda within its national health service providers.</p> <p>The National Migration Health Policy recognizes the needs of out bound, internal and in bound migrant populations, as well as of the family members left behind, and includes policy responses and a detailed action plan of strategies and actions to address these needs.</p> <p>The policy was launched in 2013 and since then following areas are prioritized for interventions within the policy scope.</p> <ol style="list-style-type: none"> a. A Health Assessment for inbound migrants for long term visa (Resident visa type) applicants. b. Development of National Standards for outbound migrants Health Assessment c. Development of a coordinated care plan prior to migration for families that will be left behind d. Improving pre departure orientation (Inclusion of life skills for health) e. Ensuring primary health care access to returning migrants f. Improving access to health in destination countries through regional and bilateral dialogue.
GAP ANALYSIS by using UHC tool	<p>The profile seeks to address issues related to primary health care access to migrants that has not been addressed previously.</p> <p>Improving access to primary health care and linking health assessments to increased access to care will contribute to universal Access to Health for Migrants.</p>

Target areas & Beneficiaries	All migrants (outbound, internal and inbound) Specific targeting of labor migrants as a vulnerable category and their families left behind	
Justification		
Important assumptions / Risks/ Conditions	Effective national coordination mechanism between relevant stakeholder Ministries are vital for implementation. High level government coordination is needed	
Vision	The vision of the National Migration Health policy is to safeguard the health of all categories of migrants throughout the migration cycle to contribute to the development goals of the country.	
Mission	The Mission of the National Migration Health policy is to implement it through a coordinated multi – sectoral, multi – agency approach leading to the enhancement of the benefits of out bound, internal and in bound migration on the economy and society by promoting the beneficial aspects of migration and minimizing the negative health impacts, integrating migrant health care into development, public health care and social welfare goals of Sri Lanka, and working towards the realization and protection of human rights in process of migration.	
Goal	Universal health coverage to migrants and families left behind in Sri Lanka	
Programmer Objectives	Indicators	Means of Verification
a. A Health Assessment for inbound migrants for long term visa (Resident visa type) applicants <ul style="list-style-type: none"> 1. Protection of public health in the country 2. Provide health insurance for primary care, 	Establishment of a HA Centre % of eligible applicants meeting YF and MM vaccination requirement % of labor migrants issued with interim visa	

<p>Treatment of TB, HIV, Malaria, emergency care</p> <p>3. To reduce burden on country health system</p> <p>b. Development of National standards for outbound migrants Health Assessment</p> <p>c. Development of a coordinated care plan prior to migrants for Families that will be left behind</p> <p>d. Improving pre departure orientation (inclusion of life skills for health)</p> <p>e. Ensuring primary health care access to returning migrants</p> <p>f. Improving access to health in destination countries through regional and bilateral dialogue.</p>	<p>% who were recommended to access care who have defaulted</p> <p>Revenue from Migration Health security Revision of circular on health service charges for non-citizens (items not included into the health security fee)</p> <p>% of panel physician institutions practicing national guidelines % labour migrants undergoing HA</p> <p>Coordinated care plan being implemented % of SLBFE officers trained % of outbound labor migrants who have put in place a coordinated care plan prior to leaving</p> <p>Revision of health component in PDO % trainers competent to deliver health component % of trainees who have satisfactory level of health orientation (tool and score to be developed)</p> <p>% of returning migrants who have accessed care at primary care institutions</p> <p>Bilateral agreements with health access included % of labor migrants who have access to primary care in destination country</p>	<p>Regulation – private sector regulation</p> <p>Estimation</p>
<p>Output (Please prepare separate indicators for each output)</p>	<p>Indicators</p>	<p>Means of Verification</p>
<p>Monitoring & Evaluation</p>	<p>Detail M & E plan to be developed Responsibility – Migration Health Unit</p>	

Program Title	Sexually Transmitted infection and HIV/AIDS
Focal Point	National STD/AIDS Control Programme
Proposal Submitted by	College of Community Physicians of Sri Lanka
Background	<p>HIV is spread mainly by having unprotected sex with someone who is infected with HIV. Anal sex is the highest-risk sexual behavior and vaginal sex is the second highest-risk sexual behavior. Anal sex has a greater risk of getting HIV because the lining of the rectum is thin and may allow HIV to enter the body during anal sex. Having multiple sex partners or having other Sexually Transmitted Infections (STIs) can increase the risk of infection through sex. HIV can be passed from the infected mother to the child during pregnancy, birth, or breast feeding.</p> <p>When an HIV negative person has an STI, he or she is at least two to five times likely to get HIV from unprotected sex with someone who has HIV, compared to an HIV negative person without a STI.</p> <p>Sri Lanka is experiencing a low level of HIV epidemic, with the prevalence of less than 5% in any defined key affected population and less than 1% in the general population. Since the detection of the first patient with HIV in Sri Lanka in 1987, the National STD/ AIDS Control Programme (NSACP) reports a cumulative number of 2241 HIV positives by the end of the third quarter of 2015, while the cumulative AIDS cases reported is 587.</p> <p>HIV prevalence rate in the 15-49 year age group was less than 0.1% at the end of 2014. The largest proportion of people with HIV are included in the age category of 25 to 49 years (75%). The age category of below 15 years, which is an</p>

equivalent to prenatally acquired HIV, has a cumulative figure of 3%. The data over the years indicate a slowly rising trend in the prevalence of HIV infection among persons having male to male and bi-sexual relationships. The predominant mode of HIV transmission still continues to be heterosexual, while no HIV cases have been reported due to blood transfusions since the year 2000. There was a case detected as prenatally acquired in 2014.

There are no HIV cases reported due to blood transfusions since year 2000. The data shows that only one case was detected as prenatally acquired in 2014 and 1% of the reported cases had a history of injecting drug use in the same reporting period. The rate of HIV among the young (15-24 age group) shows a slow but a steady upward trend since 2003. Colombo, Gampaha and Puttalam districts show the highest HIV rates, with over 10 HIV cases per 100,000 population in a district. The data indicates that the number of reported HIV positives to the NSACP has doubled per quarter compared to the situation 6 years ago. The rate of HIV among the young (15-24 age group) shows a slow but a steady upward trend since 2003 and 32 new infections reported during the year 2015.

The Integrated Bio Behavioral Survey which was carried out in 2014 showed that the percentage use of condoms at last sex with a client was 93% among female SW, and an equally high percentage of condom use (90%) was revealed with the non-paying partners. The percentage of Men Sex with Men reporting the use of a condom at last anal sex encounter with a male partner was 58%, and the percentage of injecting drug users reporting the use of a condom at last anal sex encounter with a male partner was 25%. The same study revealed that the condom use at last sex among beach boys was 67%.

	<p>Sri Lanka too is hoping to achieve 20, 20, 20 targets at the end of 2020 and end the HIV epidemic at the end of 2030 according to the UNAIDS Vision. Therefore following gaps should be addressed during next few years.</p>
<p>GAPANALYSIS By using UHC tool</p>	<p>Key populations (KPs) are groups that have a disproportionate burden of HIV in many settings. They frequently face legal and social challenges that increase their vulnerability to HIV, including barriers to access HIV prevention and treatment. Key populations include: Men who have sex with Men (MSM), people who inject drugs, people in prisons and closed settings, Sex workers (SW) and transgender people. In addition to that, Sri Lanka recognizes Beach boys (BB) as a group of a key populations in Sri Lanka.</p> <p>Vulnerable populations are populations that are vulnerable to HIV in certain situations or contexts, such as adolescents orphans, people with disabilities, and migrant and mobile workers. They may also face social and legal barriers to accessing HIV prevention and treatment.</p> <p>There are a number of supportive policies, laws, plans, guidelines, strategies and programmes in Sri Lanka which oversee the structure of the Sexual and Reproductive Health issues in the country, in order to ensure the supportive and conducive environment for prevention of STIs/HIV. In addition, Sri Lanka is a signatory to several international conventions that uphold Sexual and Reproductive Health rights. All these documents support and provide a supportive environment for HIV prevention.</p> <p>There is no specific legal offence in sex work in private. However, many facets of sex work including homosexuality are prohibited under the three ordinances, namely; Vagrants Ordinance, Brothels Ordinance and 365A of the constitution. There are misinterpretations of the law, which makes KPs reluctant to keep condoms with them, to use in need. This will lead to unprotected sex among them. But, during the recent past, these unpleasant situations were overcome with continuous training programmes among the Police sector. It is high time to revisit and amend the respective legal framework in the country, to facilitate improving sexual health.</p> <p>Countries may use laws, policies and other regulatory mechanisms to guarantee the promotion, protection and provision of sexual health information and services. As signatories to the different international and regional human rights treaties,</p>

	<p>countries should strive to fulfill their human rights obligations. They might do this by providing health care to everyone or by ensuring the right of people living with STIs or HIV to access information and services without discrimination.</p>
Target areas and beneficiaries	<p>Sri Lanka needs to take the following steps to achieve achieving 90-90-90 targets by 2020.</p> <ul style="list-style-type: none"> • Removing of laws which are misleading, and improving access for health care services by key population • Development and updated of guidelines for treatment strategies, testing strategies, loss to follow up cases for HIV infected persons • Incorporation of a comprehensive sexual health curriculum to school education • Improve HIV testing and treatment services among key populations and vulnerable groups and government should take the lead at community level with collaboration of community groups. • Improve HIV testing among key populations, vulnerable groups and anti natal mothers through rapid testing • increase capacity building programmes among different multisectoral agencies to improve skills and knowledge • Improve the diagnosis facilities for HIV and STI at the district level • Minimizing the gap between estimate and the virus suppression by improving the cascade • capacity building among health care staff for new guidelines • Special strategies should be developed to minimize stigma and discrimination for infected and affected persons • Development and implement the prevention and communication strategies for prevention of HIV and STIs. • Improvement of researches among key populations
Justification	<ol style="list-style-type: none"> 1. Increase number of new HIV infection among adults and increase new infection 15- 24 age group, 2. Increase new HIV infection among men sex with men groups 3. Difficulty of reaching health services and use condoms among key populations due to legal barriers 4. Rapid test is not freely available in all sectors 5. no sexual education in school age groups

	<p>6. Lack of research among key populations and transgender community</p> <p>Need to achieve 20, 20, 20 targets at the end of 2020 and end the HIV epidemic at the end of 2030 according to the UNAIDS Vision.</p>	
Important Assumptions/Risks/Conditions		
Vision	Quality sexual Health services for a healthier nation	
Mission	Contributing to a healthier nation through sexual health promotion, emphasizing the prevention, control and provision of quality services for sexually transmitted infections including HIV	
Programme Objectives (Please prepare separate indicators for each objective)	<ol style="list-style-type: none"> 1. Prevention of transmission of Sexually Transmitted Infections (STIs) including HIV. 2. Provision of care and support for those infected and affected with STIs including HIV 	Means of Verification
Output	<ul style="list-style-type: none"> • Access for testing and treatment without any legal barriers by key populations and vulnerable groups • Quality treatment services and improve testing facilities • Decrease gap between estimate and viral suppression of infected persons • Zero discrimination and Zero stigma among infected persons • Access for quality school education in school system • Improve diagnostic facilities at district level • available of recent research evidence for translating to policy and practice 	Means of Verification
Monitoring & Evaluation	National STD/AIDS Control programme has separate M& E indicator list.	

<p>(*)Reference to Research</p>	<ol style="list-style-type: none"> 1. Center for Disease Control, 2015, HIV Basics, viewed 1stDecember 2015, http://www.cdc.gov/hiv/basics/transmission.html. 2. Joint United Nations Programme on HIV/AIDS, 2010, Combination HIV Prevention: Tailoring and Coordinating Biomedical Behavioural and Structural Strategies to Reduce New HIV Infections: A UNAIDS Discussion Paper, 2010, UNAIDS, Geneva, Switzerland. 3. World Health Organization, 2015, Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV, World Health Organization, Geneva, Switzerland. 4. Joint United Nations Programme on HIV/AIDS, 2015, UNAIDS terminology guidelines 2015, Joint United Nations Programme on HIV/AIDS Geneva, Switzerland. 5. Family Planning Association of Sri Lanka, 2014, Procedure Manual for Implementation of GFATM (Round 9- Phase 11 HIV programme), Family Planning Association of Sri Lanka, Colombo 6. National STD/AIDS Control Programme, 2015, HIV, AIDS Surveillance data in Sri Lanka - Update 3rd Quarter, Ministry of Health, Colombo, Sri Lanka. 7. National STD/ AIDS Control Programme, 2015, Annual Report 2014/15, National STD/ AIDS Control Programme, Ministry of Health, Colombo, Sri Lanka. 8. National STD/ AIDS Control Programme, 2015, Integrated Biological and Behavioral surveillance (IBBS) Survey Among Key Populations at Higher Risk of HIV in Sri Lanka 2014, National STD/AIDS Control Programme, Management Frontiers (pvt) Ltd and KIT, Colombo, Sri Lanka. 9. Vidanapathirana, J. & Liyanage, T., 2015, Situation Assessment of Condom Programming in Sri Lanka -2015, National STD/AIDS Control Programme, United Nations Population Fund, Colombo, Sri Lanka.
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Programme Title	National STD/AIDS Control Programme,Sri Lanka.
Focal Point	Director, National STD/AIDS control programme,Sri Lanka.
Back ground/ Situational Analysis. *(Problem Analysis)	<p>Currently Sri Lanka remains a low prevalence epidemic, with an estimated HIV prevalence among adults (15-49 years) being less than 0.1% and that among individuals considered at higher risk of infection also being below 1%. The main mode of transmission is due to unprotected sex between men and women (55%), with men who have sex with men having accounted for 28% of the transmission while mother to child transmission was 0%. Though injecting drug use is not a common phenomenon (1%), certain socioeconomic and behavioral factors noticed in the country may ignite an epidemic in the future. The presence of a large youth population, internal and external migration, clandestine but flourishing sex industry, low level of condom use, concurrent sexual relationships among key populations are some such factors. Low level of sexually transmitted infections (STI), availability and accessibility to free health services from the state sector, high literacy rate, and a low level of drug injectors are protective factors. It is unlikely that Sri Lanka will develop a generalized HIV epidemic, but concentrated HIV epidemics among female sex workers (FSW), men who have sex with men (MSM), and their sex partners cannot be ruled out. Similarly, if Drug Users (DU) switch to injecting, rapid transmission of HIV will set in, as experienced in many Asian countries. This scenario is highly probable due to the existence of high transmission settings for HIV in the country, such as prisons and correctional facilities, where there is high occurrence of drug use and unsafe sex. Finally, an estimated 2,900 Sri Lankans already living with HIV are in need of better medical care and a supportive environment, as they often face stigma and discrimination in certain health care settings. The external review conducted by the review team prior to the formulation of this strategic plan had recommended the prioritization of targeted interventions for key populations and the revision of the implementation mechanism to respond to the epidemic based on evidence. Since one of the most likely reasons for the low level epidemic to progress to a concentrated one is through an epidemic of HIV among</p>

people who inject drugs. Therefore, to prevent such a disaster early comprehensive interventions had been proposed. Blood safety, HIV counseling and testing, prevention of mother to child transmission, elimination of congenital syphilis, care, support and treatment for people living with HIV, strengthening community and home based care, TB/HIV collaboration, and laboratory support should be given priority. The importance of the Strategic Information management has also been highlighted by the review team. Several guiding principles underpin the national strategic plan. They apply to each strategic area, and affect national planning and service delivery equally, as cross-cutting concerns. The main principles that have been articulated include strategies based on evidence, respect for human rights, making gender considerations a priority, involvement of people living with HIV in all stages of policy formulation, programme planning and implementation, and the establishment of partnerships on the basis of equality and mutual respect at all levels.

The National HIV Strategic Plan has identified five Strategic Directions and a list of Key Strategies to meet the needs of HIV prevention, treatment and care and programme management. These are to be monitored and evaluated using a set of core indicators.

1. The first strategic direction that has been identified related to prevention, which includes the optimizing of HIV prevention services with special reference to sexual transmission and injecting drug use and spread among vulnerable groups, detecting and management of STIs, eliminating new HIV infections in children (EMTCT) and preventing HIV transmission in health care settings. Prisoners (and those in incarcerated settings), armed forces and police personnel and those in the tourism trade would require added attention.

2. The second strategic direction addresses diagnosis, treatment and care for HIV aims at optimizing (HIV) diagnosis, treatment and care for children, adolescents and adults. It pays particular attention to antiretroviral treatment (ART), co-infections and co-morbidities among people living with HIV, reducing the burden of Tuberculosis and increased access to HIV testing and counseling.

3. The third strategic direction aims at strengthening strategic information systems for HIV, research to guide health policy and planning, resource allocation, programme

	<p>management, service delivery and accountability. As countries scale up their HIV response towards universal access, there is an increasing recognition of the need to invest in strategic information to guide programme planning and to sustain national and international commitment and accountability. Clinical/epidemiologic, socio-behavioural and health systems research is also an important component in this strategy.</p> <p>4. The fourth strategic direction refers to strengthening health systems for effective integration of health services. This addresses the needs in human resources and health financing, equity issues and support for leadership and governance.</p> <p>5. The fifth strategic direction calls for fostering a supportive environment to ensure equitable access to HIV services and to minimize HIV-related stigmatization and discrimination, promote gender equality, human rights and health equity along with the broad participation and collaboration of stakeholders and for mobilizing resources needed to continue scaling-up of HIV services, and to keep pace with increasing demand to implement the programmes.</p>
<p>Target areas & Beneficiaries.</p>	<p>The National STD/AIDS Control Programme (NSACP) is responsible for the implementation and co-ordination of activities at national and regional level related to prevention and control of Sexually Transmitted Infections (STI) including Human Immunodeficiency Virus (HIV).The overall goal of the NSACP is to reduce the impact of STIs including HIV/AIDS on the social and development of the country.</p> <p>Target areas & beneficiaries are;</p> <ol style="list-style-type: none"> 1) Prevention of transmission of sexually transmitted infections (STIs) including HIV among most-at-risk populations (MARPs) and in the general population. MARPs includes female sex workers, men who have sex with men, drug users, beach boys. In addition, vulnerable populations for STI and HIV such as prisoners, migrant populations and tourist industry workers have been identified in the national HIV strategic plan. 2) Provision of care and support for those infected and affected with STIs including HIV. They include STD clinic attendees and people living with HIV.

Justification	<ul style="list-style-type: none"> • Currently Sri Lanka is experiencing a low level HIV epidemic. However, due to changing socio economic environment Sri Lanka is experiencing an increasing threat to increase HIV epidemic levels. UNAIDS has identified Sri Lanka as a country with increasing HIV new infections. Unless prevention and control efforts are strengthened, Sri Lanka has the potential to be a high burden country for HIV. • Provision of ART to people living with HIV has shown to reduce their viral load and hence infectivity. Therefore provision of ART to all eligible people infected with HIV is essential requirement to maintain their health as well as to prevent further transmission. • Untreated STD are facilitating transmission and acquisition of HIV. Therefore it is important to provide STD treatment facilities to all the needy populations. • Prevention of mother to child transmission of HIV and syphilis can be achieved by screening and treating all infected women during pregnancy. This will save lots of money and other resources to treat babies subsequently.
Important assumption/ And Risk Conditions	<ul style="list-style-type: none"> • Proliferation of establishments which favors HIV transmission • Influx of foreign migrant workers infected with HIV • The presence of a large youth population • internal and external migration • clandestine but flourishing sex industry • low level of condom use • concurrent sexual relationships among key populations • Non-existence of an enabling environment has created a restricted access to preventive services of all key populations.
Vision	Quality sexual health services for a healthier nation.
Mission	Contribution to the healthier nation through sexual health promotion,emphasizing the prevention, control and provision of quality care for STI including HIV and AIDS.
Goal	Reduce the impact of HIV/AIDS and STI's on the social and economic development of Sri Lanka.

	Indicators	Means of Verification
Programme Objectives	STI and HIV prevalence among most at risk groups and the general population. Works done to increase the quality of life of those already infected.	IBBS/SS ANC screening
Output	Indicators	Means of Verification
	<ol style="list-style-type: none"> 1. Number of total STI's managed. 2. Number of new patients registered at STD clinics. 3. Number of STD clinic attendees who received of HIV testing and counseling. 4. Number samples screened for syphilis. 5. Number of samples screened for HIV. 6. Number of mothers given ART for PMTCT. 7. Number of HIV positive people on ART. 8. Number of CD4 tests done per year. 9. Number of HIV/AIDS deaths. 10. Percentage of sex workers who are living with HIV 11. Percentage of sex workers who are infected with syphilis (Prevalence of syphilis among female sex workers) 12. Percentage of female sex workers reporting the use of a condom with their most recent client 13. Percentage of sex workers who refused to have sex with a client/ non regular partner in the last 12 months because of not having or refusing to use a condom 14. Percentage of Sex worker who have received an HIV test in past 12 months and know results 15. Percentage of FSWs who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission 16. Number of female sex workers reached through an intervention (BCC) 	<p>NSACP</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>IBBS/SS</p> <p>IBBS/SS</p> <p>IBBS</p> <p>IBBS</p> <p>IBBS</p> <p>IBBS</p>

17. Number of Condoms distributed to sex workers	NSACP data
18. Percentage of FSWs who had a STI screening in the past 12 months	IBBS data NSACP SIM unit data
19. Number of Female sex workers received HIV Counseling and Testing	
20. Percentage of MSM who are living with HIV	IBBS data
21. Percentage of men reporting use of a condom the last time they had anal sex with a male partner	IBBS data
22. Percentage of MSM reached with HIV prevention programmes	IBBS data NSACP data
23. Number of Condoms distributed to MSM	
24. Percentage of MSMs who came for STI screening in the past 12 months	NSACP data
25. Number of MSM received HIV Counselling and Testing	IBBS data
26. Percentage of MSM tested for HIV in past 12 months and know results	IBBS data
27. Percentage of beach boys who are living with HIV	IBBS data
28. Percentage of beach boys tested for HIV in past 12 months and know results	NSACP data
29. Number of condoms distributed to beach boys	IBBS data
30. Percentage of beach boys reporting the use of a condom with their most recent male partner	
31. Percentage of beach boys who came for STI screening in the past 12 months	IBBS data
32. Number of beach boys tested for HIV in past 12 months and know results	IBBS data
33. Percentage of DU/people who inject drugs who are living with HIV	NSACP data NSACP data
34. Number of condoms distributed to DU/IDU	NSACP cohort
35. Number of prisoners reached for voluntary HIV testing	analysis data
36. Percentage of adults and children with HIV known to be	

	<p>on treatment 12, 24 and 60 months after initiation of antiretroviral therapy</p> <p>37. Percentage of estimated HIVpositive incident TB cases that received treatment for both TB and HIV</p> <p>38. Percentage of eligible adults and children currently receiving antiretroviral therapy</p> <p>39. Percentage of adults and children newly enrolled in HIV care starting isoniazid preventive therapy (IPT)</p> <p>40. HIV care</p> <p>41. Percentage (%) of adults and children enrolled in HIV care</p>	<p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p> <p>NSACP data</p>
<p>Monitoring & Evaluation</p>	<p>who had TB status assessed and recorded during their last visit</p> <p>Monitoring and evaluation (M&E) system led by a Strategic information management unit in the programme. This unit, headed by a senior consultant of the NSACP, will have access to all STI and be guided by a national M&E framework.</p> <p>According to the current NSACP organizational structure, M&E falls under the jurisdiction of the Surveillance Unit, together with HIV sentinel surveillance, behavioral surveillance and STI surveillance.</p> <p>STI reporting was conducted on a quarterly basis from government STD clinics only. HIV Sentinel Surveillance System was established 1993 and surveillance has been conducted regularly since then. The WHO Guidelines on Sentinel Surveillance have been followed, with sampling from a wide range of groups including vulnerable populations such as STD clinic attendees, TB patients, armed personnel, transport workers and most-at-risk groups such as FSWs and MSMs.</p> <p>Behavioral Surveillance Surveys (BSS) includes a mapping</p>	

	<p>exercise on most-at-risk populations (FSWs, MSM and IDUs garment factory workers and three-wheeler drivers.) be extended to cover all districts of the country. Sentinel surveillance reports are published annually At the Central level the SIM unit of the NSACP will be responsible for the following,</p> <ul style="list-style-type: none"> • Develop and implement the National M&E plan • unit for all the information about the HIV and STD related activities in the country • Provide data for planning and monitoring • Share the data to the relevant development partners • Prepare reports for the reporting international requirements such as GARPR and UA • Prepare the periodic reports • Capacitate and guide the reporting units in the field on collection, validation and analysis of data of their own • Coordinate with the reporting units to get quality data and carry out data quality audits • Develop and implement the Operational Research with other institutions/ consultants such as client satisfaction, quality of service etc., • Triangulation of data at National Level • Design and Carry out biological and behavioral surveillance • Design and carry out specific evaluation studies • Provide feedback to the reporting units on data quality and performance • Dissemination of data and relevant research funding 	
*(reference to Research)	<ol style="list-style-type: none"> 1. National HIV/AIDS policy 2. National HIV Strategic Plan 2007-2011 3. National HIV M&E Plan 2013-2017(NEW) 	

	<ol style="list-style-type: none"> 4. Annual Report of the NSACP – 2014 5. Midterm review report -2015 6. Integrated biological and behavioural surveillance (IBBS) 2014 7. Sri Lankan ART guidelines for Prevention and treatment of HIV- 2014 8. Global AIDS Response Progress Report (GARPR) 2014 9. National size estimation of MARPs in Sri Lanka 2013 10. KAP Survey among the gay community, gay identified men, and Men who have Sex with men in Sri Lanka 11. HIV Sentinel Sero-Surveillance Report-2011 12. HIV Sero Prevalence Study among Inmates of Welikada Prison-2011 13. External Review of the Sri Lanka Response to HIV & STI 2011 14. The Post Intervention KAP Study-Plantation Workers on HIV/AIDS 2014 15. Behavior Surveillance Report-2007 16. National AIDS Spending Assessment 2012 17. GFATM Round 9, phase II PR1 MOH plan 18. GFATM Round 9, phase II PR2 FPA plan
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Names of officials who documented this profile:

Dr. Sisira Liyange

Director - STD / AIDS Control Programme

Program title	Proposed Policy of Health Services in the Plantations (Proposed Policy of Estate Health)
Draft Policy submitted by	Dr D.A.B.Dangalla Director - Policy Analysis & Development
Back ground / Situation Analysis *(Problem Analysis)	<p>People of South India , brought during colonial period , were located at plantation districts of this country , and the hospitals which were established in each plantation district by the colonial government (to provide curative services to those laborers) were named as District Hospitals (DH)</p> <p>It was the sole responsibility of the individual estate management (Sterling companies) to provide the health needs of the estate laborers . According to the medical Wants ordinance (MWO) enacted in 1912 , the estates had to establish medical institutions (dispensaries & Maternity homes) which could provide basic curative care . The provision of estate health services according to the MWO was optional and linked to an incentive scheme of tax rebate depending on the services provided . Thus varying standards of care were observed among individual estates</p> <p>When a sick laborers is admitted to the plantation district hospital the District Medical officer had to prepare a bill (cost for treatment given) on form health/130 to obtain payments from the estate management , in terms of section 10 of MWO However the Morbidity and Mortality among estate laborers were very high during this period (Infant mortality , an index of community health , was over 100 per 1000 live births) The preventive health activities were limited to small pox vaccination , hook worm treatment and control of infectious diseases.</p> <p>Later in mid 1970”s with the land reform law , the sterling company owned estates were placed under the management of two government owned organizations (SLSPC – Sri Lanka State Plantation Corporation & JEDB – Janatha Estates Development Board) With the nationalization of estates more emphasis was focused on health of estate laborer and a wide range of health and welfare interventions including preventive and promotive health services using PHC approach were established .</p> <p>However in 1992 a re-structuring of estate management was introduced and the main feature of this process was to establish plantation management companies; groups estates were allocated to private companies who served as the managing agent .</p>

	<p>As the institutionalized health management structure that had been established by JEDB&SLSPC was no more in existence after the said re-structuring , there was an urgent need to provide an alternative Scheme that would at a minimum , ensure that the gains already achieved in the field of health could at least be maintained</p> <p>Accordingly the PHSWT – Plantation Housing & Social Welfare Trust (a limited liability company registered under the companies act)was established in early 1990’s under the Companies act to overcome this challenge in the plantations, The companies are obliged through their management contracts to continue the health and social welfare programme on at least the same level as before andbased on the norms and regulations previously established .It was also expected that the PHSWT will function closely with the Ministry of Health and the Provincial Councils in delivering health services to the plantation community and monitoring of the health situation in the estate sector.</p> <p>If a review is made into the activities of PHSWT up to present era , it should be mentioned that the team of PSHWT has achieved most of their targets , The Plantation Human Development Trust has focused their main activities on Housing , Water & Sanitation , Health and Nutrition of plantation community.</p>
<p>GAP ANALYSIS by using UHC tool</p>	<p>The current status of Estate Health in Sri Lanka</p> <p>However ,Representations made to the Commission of Inquiry on Lessons Learnt and Reconciliation(LLRC) by Tamils of Indian Origin (who are employed and resident in aforementioned company –managed estates) have expressed concern about the lack of health facilities in areas where they live and they have also brought to the notice of the commission , the difficult living conditions that prevailed on the estates . The said commission has appreciated these concerns and recommended the government that necessary steps should be taken to improve health and living conditions in the estate areas .</p> <p>The comments about Estate Health made by the LLRC should be further analysed according to the structures and forces that influence the Health care delivery system in estates (and this policy is designed to streamline the deficiencies identified)</p>

	.Structure / system	Issues/forces
	Curative services in estates	
	(a) Several Estate Hospitals were taken over by Provincial Health Services and managed according to the standards of state-owned Divisional Hospitals	<p>(a) Inadequacy Tamil Speaking staff</p> <p>(b) Estate employees are engaged at their field duties from morning to afternoon and unable to attend out patient care of government owned estate hospital during government OPD hours</p> <p>(c) As estate hospitals are situated at remote regions and far away from public transport routes Unavailability of quarters facilities for staff of estate hospital is a major issue , hindering the late evening and night service to the estate employees</p>
	(b) The majority of curative care stations in estate sector ie:- Estate Dispensaries are managed by the Plantation company	<p>(a) These Estate Dispensaries are manned by EMA – Estate Medical Assistants and essential y to be replaced with qualified medical officers as recommended by the LLRC</p> <p>(b) Drugs for these estate dispensaries are provided by the estate manager according to the age-old Medical Wants OrdinanceRs 3.25 per estate employee per anum (Therefore MOH has to</p>

		<p>provide a major portion of drugs)</p> <p>(c) Ambulances are not available at most of these stations</p> <p>(d) In few areas Non working residents and villagers of surrounding rural areas are not permitted to obtain treatment from these estate owned dispensaries</p>
	Dental services	<p>(a) A few Dental clinics are available in government owned estate hospitals</p> <p>(b) But no Dental clinic service at estate owned Dispensaries</p> <p>(c) Mobile services are available in a few area</p>
	Laboratory services	<p>No laboratory services available at all estate medical institutions (government owned & estate owned both)</p> <p>Further it is difficult to establish satellite laboratory service as the estate hospitals are situated faraway from public transport routes</p>

	Preventive Health services	
	(a) Non availability of Tamil speaking Public Health Inspectors in the estates	(a) Water and sanitation issues (Incidence of water borne diseases)cleanliness of line rooms and toilets Inspection (toilet construction programme), health promotional activities in estates are to be attended by a PHI
	(b) Estate midwives	(a)some of the estate midwives (who were having necessary qualifications)have been absorbed into provincial health service and employed at the same estate by the regional health authorities (b) Other midwives of estates who were not having required qualifications are still under the management company administration (Their salary scale is not EQUAL TO Govt midwives and they need more training (this category of midwives are not being supervised by the MOH , RSPHNO , PHNS , SPHM) (c) Midwives are not provided to several estates and the Welfare officer of the estate covers the duties which is grossly inadequate as the welfare officer has no training in health subjects

	<p>(c) Maternal & Child Health Clinics in Estates</p>	<p>(a) At places where no MOH clinics are held Pregnant estate employees and children are sent by a lorry of estate to the nearest MOH clinic which is usually situated at a nearby village</p> <p>(b) As estates are situated at difficult terrain and divided into sub divisions estate mothers and their children have to travel in a lorry a long distance to attend MOH clinic</p> <p>(c) Sometimes the second generation mothers who donot work in the estate are not recognized</p>
	<p>(d) Private Estates managed by their owners(small holdings)</p>	<p>These private estates are relatively small in extent and resident employees are less in number They merge with rural population and obtain health care from village clinic of MOH (home visits by the govt midwives of MOH)</p>
	<p>(e) Nutritional supplementation</p>	<p>(a) Stocks of Thripasha obtained by the managers of the estates are being distributed to estate mothers and chlidre by EMA ,Estate Midwife & Welfare officer of the estate</p>

		(b) In the private estates the MOH staff is responsible for distribution of Thripasha
	(f)NCD screening	(a) Healthy lifestyle clinics HLC have been established at some of the government owned estate hospitals (b) But HLC are not established in any estate owned hospital / Dispensary due to unavailability of trained staff
	(f) Mental health services / Cancer control programme / Sexually Transmitted Infections / Tuberculosis screening / Leprosy control programme / Environment & occupational health / Youth Elderly & disabled /	Effective Implementation of these programmes are hindered due to non availability of Tamil speaking PHII in the estates
Target areas & Beneficiaries	<p>Plantation Community</p> <p>The plantation community comprise worker and non-worker families, with a specific occupational structure. The community has been living in the plantations for over 150 years, entirely depending on the estate management, which has substantial influence on the working and living conditions of the community. Around 230,000 families are representing a population of about 900,000 people in large scale estates in the country.</p> <p>Health and nutrition indicators are well below the national averages in this population; 40.2 % of stunting (height-for –age)</p>	

	<p>and 30.1 % of underweight (weight-for-age) and 13.5 % of wasting (weight for height) among the under 5 children in estate population compared to the national averages of 13.5 % stunting and 29.5% underweight among children under five years as indicated in the Demographic and Health Survey, 2006. The infant mortality rate (IMR) and under five mortality rate (U5MR) are still very high in the estate sector (47.5 and 51.6 per 1,000 LB) as compared to other areas in the country (16.1 and 17.3 per 1,000 LB) even though there has been a decline over the past few years. A clear disparity is also seen in the immunization coverage rates of the estates (86.1 %) versus the other rural areas (94.4%), where similar kinds of service delivery are supposed to be in place .It is quite evident from the records that the disparity is reducing (82.3 % in 1993 to 86.1 % in 2000) but there is still need for improvement of the coverage in the estate areas. Of the women aged 15-49 years 23.9 % was of BMI under 18.5.</p> <p>The deplorable status of the housing conditions for the plantation community, most of which is living in row one –room houses, with no or insufficient water (24.8 % only access to safe drinking water) and sanitation facilities. Of the households 55.9 are having only one room and only 66.3% has sanitary facilities and 68% has electricity(DHS 2006)</p> <p>Recently carried out survey (2012) IN Hunnasgiriya estate revealed that only 25.9% of children continue their education above grade 9. Most prevalent unhealthy habits were alcohol use (25.9%) and betel chewing (23%).</p> <p>The Government of Sri Lanka has clearly recognized the disparities prevailing in the plantation community in comparison with other segments of the Sri Lankan population. The Ministry of Estate Housing, Infrastructure & Community Development was established in 1997 to improve the socioeconomic conditions of the plantation community. This Ministry has expressed its vision as “eradication of social and economic inequality of the plantation community through the advancement of socio-economic condition with a mission to ensure the improvement and upgrading of livelihood and living conditions of the plantation community of the plantation community and integrate them with the rest of Sri Lankan society.</p> <p>As mentioned above the health indicators and the housing conditions for the plantation community, most of which is living in row one –room houses, with no or insufficient water and sanitation facilities are very poor compared to that of the rest of</p>
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	<p>the population of our country. The literacy rate is also poor and the school dropouts with secondary level are almost 75%. Provision of the curative health care is also not satisfactory with poor infrastructure and the lack of human resources. Nutritional status of the children, pregnant mothers and adolescents are also unsatisfactory with majority of low BMI and anaemic.</p> <p>Therefore the hospital facilities has to be improved by renovation of the hospitals and making availability of the doctors and health staff with easy accessibility and availability after their working hours.</p> <p>In addition, the sanitary facilities have to be improved with toilet facilities and safe drinking water. Therefore a reasonable amount is allocated for the toilet construction.</p> <p>Another important area which has to be paid more attention is the nutrition of the people. The major challenge for Sri Lanka's children, men and women is under-nutrition. This problem is even more severe in the Estate Sector due to lack of adequate health facility networks including the staff and insufficient awareness and understanding by the communities themselves.</p> <p>The dietary habits have to be changed through the behaviour change communication. In addition the community has to be educated on the household budgeting and people have to be promoted to give priority to spend on nutrition.</p> <p>Even though small surveys and data from Family Health Bureau reveals that the MOH areas with majority of estate population, there are no proper studies or data to get the current situation. Therefore researches, surveys and audits are mandatory analyse the situation and to carry out further health promotion activities.</p> <p>.</p>
<p>Justification</p>	<p>The guiding principles underlying the estate health policy</p> <p>Sri Lanka has committed to the principles of social justice and equity , based on the dignity and worth of the human person , and in the rights and obligations of individuals and the community in attaining the highest possible level of health. The values that a society places on health , and health care becomes critical to how much attention , importance and commitment is attached these matters In the same manner , the attention that is given to the formulation and implementation of a policy frame work for Estate Health should be guided by the same principles .This policy framework , therefore , is based on a guiding</p>

	principles and challenges that relate to health and human rights , equity and ethics , community participation and empowerment, and addressing the primary care needs , particularly of the poor and the marginalized sections of the society as mentioned in LLRC about Estate resident Tamils of Indian origin
Important assumptions / Risks / Conditions	<p>Relevance to Policy of Government Of Sri Lanka (GOSL policy) The policy of the government states that the government intends to improve the health service delivery systems in the plantations to a level that is on par with that of other urban areas . In order to achieve this objective hospitals clinics and other health facilities will be manned by the staff of the government health service</p> <p>Conformity to the national health policy of Sri Lanka A main strategy identified in the national health policy is as follows : Health care will be made more accessible to the community on an equitable basis with provision for meeting specific health needs</p>
Vision	Sri Lanka with healthy and productive estate population
Mission	<p>Plan and implement a comprehensive health programe improving health indicators among estate population to levels comparable to national indicators through development of infrastructure , human resources and service delivery in the estate sector</p> <p>Policy Options health package to the plantation community ie – PHDT Thus legal provisions has to be clearly demarcated to avoid duplication of services and interference to other service provider (viceversa)</p> <ul style="list-style-type: none"> • Either the Estate Management to hand over ail estate Medical institutions to the health department • Or ; to retrain the existing medical institutions with the estate management and obtain only the services of Govt. medical officer & drugs from Govt Drugs Stores (PUBLIC PRIVATE MIX) • And ; takeover all public health activities by Tamil speaking PHI &PHM of MOH divisions of the districts with estates
Goal	Upgrade the quality of life of estate populations by improving overall health and health services

<p>Programme Objectives</p>	<p>Key result areas 1-Plantation Estate Hospitals ,Maternity Homes & Estate Dispensaries Policy Objectives</p> <ul style="list-style-type: none"> • To ensure the provision of standard package of government curative care at all estate medical institutions • To ensure the availability of Tamil speaking staff at all Estate Medical institutions as responsive to the patients' needs • To adjust the working hours of OPD of estate medical institutions to be user friendly <p>Key Result area 2. Preventive and Promotive Health services in Plantation Estates Policy Objectives</p> <ul style="list-style-type: none"> • To appoint Tamil speaking Public Health staff to plantation estates • To provide Government Public Health Care package to all residents in plantation estates • Government Public Health staff to coordinate with PHDT and Estate management in delivering the public health programmes in estates • PHDT and estate management to facilitate the implementation of public health programmes in estates by Government Public Health staff • To form a team of care givers incorporating Government appointed (Tamil speaking staff) PHII&PHMM with Estate staff (Welfare Officer of the estate) to Deliver the Public Health Care Package to the Estate resident workers .
<p>Strategies / Major Activities</p>	<p>Key Strategies / result area 1</p> <ul style="list-style-type: none"> • The State (& Provincial councils) will develop the infrastructure and provide medical equipment (according to the norms), to the government owned estate hospitals . • Tamil speaking staff will be appointed to government owned estate hospitals and all new cadres will have the Tamil language proficiency • OPD hours of government owned estate hospitals will be extended till 6/8 pm and on call service depending on the availability of facilities

	<ul style="list-style-type: none"> • Dental services will be established in all government owned estate hospitals • Basic laboratory services will be established • Quartes will be made available to MOO, DS , NOO, & other staff <ul style="list-style-type: none"> • The estate management shall improve the infrastructure and provide medical equipment according to norms of Ministry of Health) to the estate owned medical institutions <p>Medical officers & Dental surgeons will be appointed& Drugs and surgical items will be supplied to the estate owned medical institutios by the Ministry of Health ; meanwhile the estate management to provide ambulances , other staff (especially Dispensers)and Quarters for MO If not handed over to the government , the general management of estate owned medical institutions will be attended by the estate management (except the medical & technical duties which will be attended by the MO appointed by the government)</p> <p>Key Strategies / results area 2</p> <ul style="list-style-type: none"> • The State (& Provincial councils) will develop the infrastructure and provide medical equipment (according to the norms), to the government owned estate hospitals . • Tamil speaking staff will be appointed to government owned estate hospitals and all new cadres will have the Tamil language proficiency • OPD hours of government owned estate hospitals will be extended till 6/8 pm and on call service depending on the availability of facilities • Dental services will be established in all government owned estate hospitals • Basic laboratory services will be established • Quartes will be made available to MOO, DS , NOO, & other staff • The estate management shall improve the infrastructure and provide medical equipment according to norms of Ministry of Health) to the estate owned medical institutions • Medical officers & Dental surgeons will be appointed& Drugs and surgical items will be supplied to the estate owned medical institutions by the Ministry of Health ; meanwhile the estate management to provide ambulances , other staff (especially Dispensers)and Quarters for MO If not handed over to the government ,
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	<p>the general management of estate owned medical institutions will be attended by the estate management (except the medical & technical duties which will be attended by the MO appointed by the government)</p>
Monitoring & Evaluation	<p>Implementation will be attended by the Provincial councils ,PDHS , RDHS&MOOH The monitoring will be performed by the line ministry of Health viz ; Director / Estate Health</p>
(*Reference to Research	<p>Taking over of Preventive and other Public Health Services of the Plantation Areas – Cabinet paper no. 07/1157/311/033 a memorandum dated 09.07.2007 by the Minister of Health care and Nutrition & Observations by the HE the President as the Minister of Finance & Planning ; No NP/HRD/H/CM/18/07 dated 31.07.2007</p> <p>Ministry of Health & Women’s Affairs (1993) Guidelines for Management of Health services in the Plantations</p> <p>Report of the COMMISSION OF INQUARY ON LESSONS LEARNT AND RECONCILIATION (November 2011) sections 8.183& 8.184 – Grievances of Tamils of Indian Origin , 298-299</p>

Program title	National Programmer for Tuberculosis Control and chest Diseases (NPTCCD)
Focal point	Director – NPTCCD
Back ground/ situation Analysis *(Problem Analysis)	<p>Organization structure:</p> <p>The National programmer for Tuberculosis control and chest Diseases (NPTCCD) which is under the purview of DDG PHS 1 is one of the key institutions in the national health system headed by the Director – NPCCD. NPCCD is responsible for the tuberculosis (TB) and other respiratory disease control activities of the entire country, infrastructure development of institutions under its purview, and provide technical, financial assistance, formulate policies and guidelines. It also engaged in surveillance, planning, implementation, monitoring and evaluation of TB control activities in the country.</p> <p>There are 26 district chest clinics functioning in 25 administrative districts and in – patient facilities are provided through National Hospital for Respiratory Diseases and 15 chest wards in other Hospitals. Diagnostic services are carried out through the National Tuberculosis Reference Laboratory (NTRL), Regional culture Laboratories, District chest clinic Laboratories, and Microscopy centers. Central Drug stores of the NPTCCD is responsible for the estimation, procurement, supply and distribution of anti – TB drugs in the country.</p> <p>The District chest clinic is the key organizational unit of the National Tuberculosis programmer at district level. It is the focal point of the NPTCCD for all TB activities in the district. In addition to TB patients, the clinic also manages patients suffering from other respiratory diseases.</p> <p>The District chest clinics are under the administrative control of the District Tuberculosis control officer (DTCO) who functions under the Regional Director of Health Services (RDHS). However, the two District chest clinics, Colombo and Gampaha come directly under the administrative purview of the Director, NPTCCD.</p> <p>Burden of TB :</p> <p>The burden of Tuberculosis in the country is reflected in the estimates and the notification rates. For year 2013, the estimated number of all forms of TB cases were 14 000 whereas the total number notified cases to the NPTCCD was around 9 000, which implies nearly 4000 cases are not being detected by the routine system.</p>

The percentage of total number of incident cases notified, out of total number of estimated incident cases of TB was 66%.

Table 1 : Estimates and notification rates 2013

Estimated incidence of all forms of TB	14,000 (13, 000 – 16,000)
Estimated incidence rate of all forms of TB (per 100 000 population per year)	66 (59 – 75)
Estimated prevalence of all forms of TB	22, 000 (11,000 – 36, 000)
Estimated prevalence rate of all forms of TB (per 100 000 population per year)	103 (53 – 170)
Number of new and relapse cases notified	9329
Notification rate of new and relapsed TB (per 100 000 population for the year 2013)	44
Case detection rate (all forms of TB)	66 (59 – 74)

*(source : WHO Regional Office SEAR ,2015¹)

In 2014, there were 9473 notified cases of all forms of TB in the country. Out of them, 92% were new cases and 4.8% were retreatment cases. Of all the new cases, majority were smear positive (49.4%). The ratio of new sputum smear positive cases to smear negative is 2.3 in 2014². The proportion of children reported with TB was low as 3% compared with the global value of 5 – 8%.

The disease predominantly affects the males (66%) and the productive age group (15 – 54 years).

Sri Lanka has been successful in maintaining a treatment success rate of above 85% since 2005 which is the MDG target for 2015. Reduction in the defaulter rates from 10% in 2003 to 6.4% in 2005 has contributed a lot, to the achievement in the success rate.

During the year 2013 among the TB patients, 6 were identified to have HIV and there were 12 patients in 2014.

Number of Multi Drug Resistant (MDR) TB cases diagnosed in was consistently very low over the year until up to 2013. With the use of rapid diagnostics including MTB/RIF and LPA has improved MDR TB case detection in 2014 (4 cases in 2013, 13 cases in 2014)².

Gaps identified:

- Case detection in Tuberculosis –

The most prominent feature in the trend of TB case notifications in the country was the sharp drop of TB cases in the year 2012 as compared to the steadily increasing trend of TB case notifications from 2006 to 2011. The drop was followed by a slightly increased number of cases in 2013. The detailed epidemiological analysis carried out by the NPCCD showed that the decrease in the number of cases was not attributable to an actual reduction in the cases in the population but to lapse in the TB control activities in the country³.

The joint monitoring mission⁴ carried out at NPTCCD in 2014 identified centralized system for registration of patients and initiation of treatment as a major risk for initial loss to follow – up. Most peripheral hospitals and central dispensaries do not actively screen for TB. The limited access to rapid and sensitive diagnostics using molecular tests, inadequacy of screening household contacts contributes to low case detection in the country. Furthermore lack of trained staff especially in North and Eastern areas, insufficient infrastructure facilities and lack of provincial level supervisions are also observed.

- District variation in case detection –

Case detection levels vary widely between different districts in the country. In an attempt to assess the performance of diagnostic procedures for TB using the rate of sputum smear examinations for 100 000 population in 2011 and 2012, it has shown that there is no direct relationship between the rate of smear examinations done and the case detection rate. These results indicate that the quality of smear diagnosis is insufficient in some districts, and the case detections could be further increased by expanding and improving the case detection activities in certain districts.

- Treatment Outcome –

Although the country maintained a treatment success rate of above 85%, the main concerns are reduction of treatment success rate to 85.5% in 2013 with the slight increase in the defaulter rate to 5.4% (WHO target < 5%) and a death rate of 5.3%.

Analysis of district level data on treatment success rates shows some district to have a success rate of below 80%. The centralized treatment services at DCC are inconvenient for patients and the involvement of community members and private hospitals as DOT providers is not

satisfactory. Further the treatment services at plantation sector and in the prisons are suboptimal. Minimal social support for economically deprived patients is also a barrier for continuous treatment.

An analysis of deaths in 2011 shows majority of the cases die during the first month of treatment. The possible explanations are late diagnosis, less attention on the Co- morbid factors, and lack of inward facilities for needy patients in the health care settings. Further these deaths include deaths due to any cause during the course of treatment which would overestimate the burden. NPTCCD has taken the initial steps in conducting death reviews to identify the correctable mistakes in patient management.

- TB HIV co infection and other vulnerable groups –

Sri Lanka is a low burden country for TB/HIV co infection. The NPTCCD has started screening all the TB patients for HIV in 2012 and in year 2014 78.2% of the patients were screened accordingly. This shows an improvement when compared with the 2013 value which was 48.9%. However further expansion is needed.

The prevalence of TB in the prisons population is very high as 1688/100,000 inmates⁵ the prevailing laws and regulations in prisons, conducive environment for spreading of TB and inadequacy in prison health services have resulted in high prevalence of TB and loss to follow-up is high once they are released.

- Multi Drug Resistant (MDR) TB –

MDR – TB is entirely a laboratory diagnosis and patients diagnosed at the NTRL are treated initially at the National Hospital for Respiratory Diseases after which they are referred for continuation phase of treatment at chest clinics in their respective districts. Availability of drug sensitivity testing is limited to NTRL and there are no facilities to carryout second line DST in Sri Lanka. Culture and DST testing is limited to patients at high risk for MDR – TB due to limited capacity. Lack of socioeconomic support and inadequacy in counseling services are observed.

- Gaps related to supervisions –

It is observed that the supervisions at the district levels are not satisfactory and supervisors are not adequately trained on the supervisory methods. Delays in sending supervisory reports and the delays in taking actions need to be addressed.

	<ul style="list-style-type: none"> • Infection control – <p>There are limited efforts to stop aerosol control from the chest symptomatic and TB patients. OPD rooms do not adhere to simple ventilation and air flow mechanisms for effective infection control. Health care workers do not practice control measures. there is a lack of guidelines for the General population on cough hygiene and sputum disposal beyond the health institutions</p>
GAP ANALYSIS by using UHC tool	
Target areas & Beneficiaries	<p>High risk populations including contacts of TB patients, people living in urban slums, plantation sector, health care workers, prisoners, patients with Diabetes Mellitus and patients living with HIV</p> <p>Patients with respiratory diseases and the community will be benefited by early diagnosis and complete cure</p>
Justification	<p>Tuberculosis is a major public health concern in the country. It mainly affects the productive age group people leaving the families in social and financial difficulties. The low case detection rate, stagnant defaulter rates, barriers to access quality diagnostic and treatment facilities contributes to continuous transmission of disease in the community and emergence of drug resistance. HIV/TB co-infection although the numbers are few at present, needs more attention. Identifying and addressing the gaps in the prevailing TB control activities would help in reducing the burden of disease.</p>
Important assumptions / Risks/ Conditions	<p>Sustainability of funding through GOSL and other funding agents</p> <p>Equal distribution of trained manpower</p> <p>Private public partnership and multiple stakeholder involvement including community</p> <p>Strengthened monitoring and evaluation system at all levels</p> <p>Uninterrupted quality assured drug supply</p> <p>Accessible modern diagnostics</p>
Vision	Sri Lanka free of Tuberculosis and other respiratory diseases
Mission	<p>To contribute to the socio – economic development of the nation by committing ourselves to create a TB free Sri Lanka and to reduce the morbidity and mortality due to the respiratory diseases by formulation of policies, planning, coordinating and monitoring of all TB and other respiratory disease control activities in the country.</p>

Goal	Decrease the prevalence of TB by 10% by 2020 based on re – assessment of TB burden figures to be conducted in 2014 ⁶	
<p>Programmer Objectives (Please prepare separate indicators for each objective)</p> <ol style="list-style-type: none"> 1. To improve TB control by detecting at least 80% of incident TB cases (all forms) by 2017 and 90% of incident cases by 2020 2. To improve the outcome of enrolled TB patients <ol style="list-style-type: none"> a) By achieving 90% treatment success rate of all forms of non MDR TB patients b) To maintain at least 75% of treatment success rate among MDR TB cases by 2017 and further sustaining 3. To integrate TB control activities in to general healthcare system by establishing TB diagnostic and treatment services in 40% of all hospitals up to the level of Divisional Hospitals Type B or above by 2017 and in 80% by 2020 	<p style="text-align: center;">Indicators</p> <p>Case detection rate of incidence cases</p> <p>Treatment success rate of all forms of TB</p> <p>Treatment success rate of MDRTB</p> <p>% of hospitals up to divisional hospital Type B with established TB diagnostic and treatment services</p> <p>% of notified TB cases detected by private care providers</p> <p>Composite indicator comprising an assessment of the adequacy of staffing levels, training and supervision activities, and other components of TB control</p>	<p style="text-align: center;">Means of Verification</p> <p>Routine recording and reporting system, WHO’s Global TB Report</p> <p>Routine recording and reporting system</p> <p>Modified Routine recording and reporting system</p> <p>Routine recording and reporting system</p> <p>Modified Routine recording and reporting system , Supervision reports, programmer reviews</p>

<p>4. To improve accessibility to TB treatment and care by engaging 30% of all private health care providers (hospitals and General practitioners) in TB control by 2017, and 50% by 2020</p> <p>5. Ensure that quality TB services in line with current international standards are provided by qualified and regularly supervised personnel at 100% of all implementation sites by 2017 and further sustainment</p>		
<p>Output (Please prepare separate indicators for each output)</p> <p>1. Field Healthcare Workers at MOH level used for community awareness and referral for sputum microscopy</p> <p>2. Targeted screening activities for high risk groups conducted</p> <p>3. Contacts of cases screened</p>	<p style="text-align: center;">Indicators</p> <p>% of notified TB cases contributed by non NTP care providers</p> <p>Number of TB cases notified among key affected populations/ High risk Groups</p> <p>% of contacts of TB patients detected with TB</p> <p>% of laboratory facilities with satisfactory external quality assurance results</p>	<p style="text-align: center;">Means of Verification</p> <p>Routine recording and reporting system</p> <p>Routine recording and reporting system</p> <p>Routine recording and reporting system</p> <p>Routine recording and reporting system</p>

4. High quality laboratory services at all DCC and MCs made available	Percentage of presumptive MDRTB cases receiving DST	Routine recording and reporting system
	% of childhood TB cases among all TB cases	Routine recording and reporting system
5. MDR – TB suspects adequately screened		
6. Adequate diagnosis and management of TB in children ensured	% of TB patients with HIV test results recorded	Routine recording and reporting system
	Proportion of the population with adequate knowledge about TB and a positive attitude towards NPTCCD services	KAP Surveys
7. TB patients screened for HIV		
	% of patients with documented daily DOT at least in the intensive phase	Routine recording and reporting system
8. Advocacy and communication activities for the general population conducted	% of cases receiving social support package	Routine recording and reporting system
9. Daily DOT provision strengthened	% of MDR cases receiving social support package	Modified routine recording and reporting system
10. Standardized social support package for patients in need developed	% of hospitals up to divisional Hospitals type B with access to sputum examination services	District TB register, Central TB Database
11. Standardized social support package for all MDR-TB patients developed	% of hospitals up to divisional Hospitals type B with access to TB treatment	District TB register, Central TB Database
12. Accessible TB diagnostics at hospitals up to divisional level Type B	% of institutions with institution infection control policy	Infection control committee meeting minutes
	Proportion of staff trained	NPTCCD

<p>13. Accessible TB treatment services at hospitals up to divisional level Type B</p> <p>14. Implemented comprehensive infection control policy at all facilities</p> <p>15. comprehensive training program implemented</p> <p>16. Adequate supervision done</p>	<p>based on new NPTCCD training Modules</p> <p>Proportion of facilities for which adequately filled supervision reports are available</p>	<p>NPTCCD</p>
<p>Monitoring & Evaluation</p>	<p>Overall responsibility of monitoring and evaluation of TB control activities carried out at both central and district levels lies with the planning Monitoring and Evaluation Unit (PMEU) and Health information Management unit (HIMU) of the NPTCCD. Both units function under the technical guidance of consultant community physicians and administratively responsible for Director and Deputy Director of NPTCCD. In addition District level authorities will incorporate in monitoring and evaluation activities. Monitoring and evaluation are carried out in the form of onsite supervision, programmer reviews, document reviews etc. These will be carried out monthly, quarterly, annually and biannually as per indicated for each activity. Based on evaluations necessary actions will be taken to improve the progress of the programme.</p>	
<p>(*) Reference to Research</p>	<ol style="list-style-type: none"> 1. World Health Organization, Regional Office for South East Asia. (2015). tuberculosis control in the South East Asia Region. World Health Organization. 2. NPTCCD Central Level Data Base 3. Report of the Epidemiological Assessment of TB Control in Sri Lanka 	

	<ol style="list-style-type: none">4. National Programmer for Tuberculosis control and chest Diseases. (2014). 5th Joint Monitoring Mission of the National Programmer for Tuberculosis Control. National Programmer for Tuberculosis Control and Chest Diseases. 5. De Alwis AKSB, Samaraweera SD, Pallewatte NC, Ambagahage. (2013). Prevalence of sputum positive Tuberculosis among convicted prisoners in Sri Lankan prisons and its contributory factors. International Conference on Public Health Innovations. National Institute of Health Sciences. Kalutara, Sri Lanka. 6. National Strategic Plan for TB Control 2015 – 2020
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Program Title	Improvement of Health of the Estate and Urban population
Focal Point	Director / Estate and Urban Health Unit
Background	<p>Sri Lanka has a population of 21 million of different ethnic and religious origin. Sri Lanka is recognized as a middle income country with good social indicators, such as low maternal, infant mortality rates and long life expectancy. Challenges remain in several pockets such as estate sector and urban settlements. Public health and social services do not reach or not adequate due to poverty, accessibility, language barrier or low literacy level in these populations.</p> <p>Estate Population</p> <p>The socio-economic and health status of the estate population in Sri Lanka is a subject that has raised concern at national, as well as international level. Estate population constitutes about 4.2 % (2011) of the total population in Sri Lanka with the history of 200 years of their existence in the country. They live on a separate community within the strict confines of the estates. Estate population of today are the decedents of several generations. All aspects of their social welfare, health, education and other needs were looked after by the British planters initially and the estate management today. They have lived within the estate premises under poor housing and sanitary conditions and undergone many hardships. They lived as stateless people for many years, time to time few were given citizenship under several Acts until 2003. In addition to language barrier, this had a greater impact on them to enjoy the social benefits of the country and lead to their poor social, educational and economic development of this community</p> <p>Tea production became one of the main sources of foreign exchange for Sri Lanka contributing to the economic development of the country in a significant way. Although estate community contributes immensely for the country's economy, they continue to live in poverty; in remote locations with inaccessible terrain under poor living in line rooms and poor water and sanitary conditions.</p> <p>According to DHS 2006, 57.9% of them live in the 'Line rooms' with poor ventilation. Only 66.3% have sanitary facilities in the household, and only 11% have improved source of drinking water, and 68% have electricity to household (DHS 2006).</p> <p>Women with low BMI < 18.5 is 33.3%, 40.2% of under 5 years children are stunted and 30.1% are underweight and Low birth weight is 31.0%. Infant mortality rate is 29.0%, and neonatal mortality rate is 18.0%, and 18.3% of the married females (15-49 years) have no education (DHS 2006).</p> <p>Since estates are situated at difficult terrain and divided into sub divisions, women and pregnant mothers have to travel in a lorry for a</p>

	<p>long distance to attend MOH clinic. Sometimes the second generation mothers who do not work in the estate are not recognized for this service. Since the service is on the basis of daily wage and attendance basis payment they are reluctant to attend the clinics regularly, which leads to high incidence of home deliveries (2.2% where it is 0.0%, 0.5% in the urban and rural sector respectively) (DHS,2006) and Maternal Deaths.</p> <p>Most MOHs having estate population are not able to conduct the clinics in the estate clinic centers due to difficult terrain issues and lack of appropriate transport. Effective implementation of national programmes are also hindered due to non-availability of Tamil speaking PHII and PHM in the estates and services such as Mental health services , Cancer control programme ,Sexually Transmitted Infections, Tuberculosis screening, Leprosy control programme, Environment & Occupational health and Youth Elderly & disabled.</p> <p>In the year 2007, preventive health in the estate sector was brought under the Provincial Health authority with the Cabinet memorandum. Whereas the curative health provision is still not fully mainstreamed with National Health Service, they are under the estate management, and the medical treatment is given by Estate Medical Assistant (EMA). Currently 153 EMAs are practicing in the estate dispensaries.</p> <p>Integrating Estate Health service to the National Health system and provision of a satisfactory health service to the estate population on the estate, with proper referral (access) to the mainstream (national) health service, maintaining equitable status with other communities in the country is the current need of this community as well as the country to improve the national indicators further.</p> <p>Urban Population</p> <p>Sri Lanka is increasingly facing the challenge of urbanization. Estate and Urban Health unit is the national focal point for the health of the urban population especially low income urban under settlements. Data on these populations is not available. Currently the mapping of these settlements is been carried out by the unit to identify the population and the no of such settlements in the country.</p> <p>Internal migration due to urbanization has caused rapid urban population growth leading to its own set of challenges linked to congestion and poor living conditions with poor sanitary conditions. From the health sector perspective; they are also exposed to high risk of both communicable diseases including TB and HIV/AIDS, vector borne diseases such as Dengue and non-communicable diseases such as Diabetes, HT, road traffic injuries etc. Other environmental related issues such as air and water pollution, and waste management. In addition, services stressful competitive life leads to mental stress.</p> <p>Urbanization has also changed the populations' demands on and expectations of health service providers. The relatively easy</p>
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	accessibility to tertiary care services (private and public) in urban settings has led to urban populations underutilizing the primary care setting and overcrowded of tertiary care institutions. Their health care seeking behavior is also need to be understood to address the disparity in healthcare provision in these settings.		
Target areas & Beneficiaries:	<ol style="list-style-type: none"> 1. Population in the Estate sector 2. Low income under settlement population in the urban sector 3. Working population living in urban areas 4. Healthcare personnel working in estate hospitals and other health care settings (e.g. MOH setting) similarly in the urban slums. 		
Justification	Poor health indicators in the estate and urban settlements are shows that they do not have equitable health service availability. This disparity need to be addressed to improve the health status of these vulnerable population.		
Important assumption	Health standards of the estate sector and the population in the urban low income populations are not up to the national standard. Language barrier affects the quality and availability of service provision in the estate sector. Health policy of the Ministry of Health is to integrate the estate health services with the other state health services is in progress. However, currently the majority of curative care stations in estate sector ie:- Estate Dispensaries are managed by the Plantation companies manned by Estate Medical Assistants (EMA).		
Vision	Sri Lanka with healthy and productive estate and urban population		
Mission	Plan and implement a comprehensive health programme improving health services among estate and urban population, to levels comparable to national indicators through development of infrastructure, human resources and equitable service delivery.		
Goal	Upgrade the quality of life of estate and urban population by improving the overall health and health services		
Programme Objectives	Indicators	Means of verification	
1.	To improve the health status of the plantation community by reducing the disparity that exists between the plantation sector and the other sectors of the country in provision of basic health care services	<ol style="list-style-type: none"> 1. Output indicators - nutritional status of under 5 Morbidity Indicators 2. MMR,IMR 3. % Pregnant mothers registration 	HIS Periodic survey reports DHS
2.	To develop the preventive health care services by assisting in implementing of all national health programmes	<ol style="list-style-type: none"> 1. No of planned health care programme implemented in the plantation sector 2. Immunization coverage 3. % ANC care 4. % Government PHMs 	HIS Periodic survey reports

		vacancies in the estates	
3,	To take over all estate hospitals, and dispensaries to the Government	1. No of estate hospitals, and dispensaries taken over to the Provincial Health service	Institutional (Hospital) records and returns
4.	To develop the infrastructure of health facilities in the estate (Hospitals and dispensaries, MCH Clinics, Child development centres, Quarters and Sanitary facilities)	2. No of hospitals and CDs renovated in the estate sector 3. No of hospitals and CDs newly equipped in the estate sector 4. No of hospitals with staff quarters to all categories 5. No of hospitals with Ambulance availability 6. No of Estate hospitals provided with necessary equipment	Institutional (Hospital) records and returns Periodic survey reports
5.	To improve human resource for health facilities in the estate sector to improve curative and preventive health services.	1. % Estate hospitals with qualified medical persons 2. % of health staff availability related to the approved cadres in both curative and preventive health services in the estates 3. No of new cadres identified for estate health institutions	HIS Periodic survey reports and returns Institutional records
6.	To improve the accessibility of the health staff to the estate health community	1. No of estate hospital with good road system and adequate transport facility 2. % of MOH office with estates having 4 wheeled vehicle in good condition	Periodic survey reports

7.	To improve the nutritional status of the estate sector population	Output nutrition Indicators	DHS survey, returns, Nutrition month returns Periodic survey reports
8.	To improve the MCH and other type of service delivery to the estate population	% of MCH clinics conducted at the estate health institutes	Returns and health reviews
9.	Improved health seeking behavior and utilization of health services using behavior change communication	<ol style="list-style-type: none"> 1. No. of awareness programmes conducted on Health service utilization and life skill programmes to estate sector 2. Hospital utilization rates 3. Prevalence of selected health seeking behaviors. 	Behavioral surveillance
10.	To undertake research studies on health related behaviors, Interventions through Behavioral Change Communication, and service delivery. Mapping of estate dispensaries and other health facilities in the estates	No of research and surveys conducted	Research report
11.	To Develop the Health Information System (HIS) on estate health at the central level to integrate the current data reporting system into the MOH reporting system, which is currently reported to the estate management and PHDT.	Establishment of Health Information System at EUH to obtain the estate data for all indicators	Database getting regular updates through reports and returns
12.	To eliminate the language barrier in the provision of health services in the estate sector	<ol style="list-style-type: none"> 1. No of health staff trained in Tamil language 2. No of health staff efficient in spoken Tamil 3. No of Tamil speaking staff recruited to serve in the Estate Health facilities 	Records and returns

13.	To improve the Occupational Safety in the estates by improving the occupational safety awareness and provision of occupational safety	<ol style="list-style-type: none"> 1. No of Occupation safety seminars conducted 2. No of estates and factories covered to conduct the awareness programmes 	PHI records and returns
14.	To develop the Laboratory services in the identified estate hospitals and mobile laboratory to other hospitals as a rotation basis on fixed days	No of Estate hospitals with laboratory services	Institutional records and returns
15.	To improve the health of urban population by addressing the disparities within the sector	<ol style="list-style-type: none"> 1. % ANC care 5. Immunization coverage 2. Hospital utilization rate 	<p>HIS</p> <p>Periodic surveys reports and returns</p> <p>Institutional records and returns</p>
16.	To Develop the Health Information System (HIS) on urban health at the central level	Establishment of Health Information System at EUH to get the Urban data for all indicators	Database getting regular updates through reports and returns
17.	To map the urban low income settlements in the country and to develop a system to receive health returns to Estate and Urban health unit	No of identified urban low income settlements in the country	Survey records
Output			Indicators
1	Health standards of estate and the urban slum population are equal to the national health standard ie., Health indicators do not vary between sectors in the country	Health indicators such as infant mortality rate , maternal mortality rate, % institutional birth, % Low birth	<p>HIS</p> <p>DHS Survey</p> <p>Periodic survey reports and records</p>
2.	Improved nutritional status of the estate sector population	Nutritional indicators such Underweight. Stunting, low birth weight	<p>DHS survey</p> <p>Nutrition month report</p> <p>Periodic survey reports and returns</p>
3	Improved infrastructure and equipment provided for all estate health institutions	<ol style="list-style-type: none"> 1. No of estate hospitals with improved infrastructure facilities 2. No of staff quarters in each Estate hospital 	<p>Institutional records</p> <p>Periodic survey reports</p>

		<p>3. No of hospital with adequate equipment</p> <p>4. % of Estate Hospital with good condition Ambulance</p>	
4.	All estate hospitals taken over by the Government to function	% of taken over Estate Hospital functioning with adequate staff with full capacity (e.g all Divisional hospitals functioning for 24hrs with inpatient admission and functioning maternity wards)	Institutional records Periodic survey reports
5.	Adequate human resource for health facilities in the estate sector	<p>1. 100% health cadres filled</p> <p>2. No of new cadres identified</p>	HIS Periodic survey reports and returns
6.	Improved curative and preventive health services in the estate sector	<p>Maternal Mortality rate</p> <p>Infant mortality rate</p> <p>% institutional birth</p> <p>%Low birth weight</p> <p>% of underweight infants</p> <p>% of stunted under 5 children</p> <p>% of pregnant mothers with low BMI</p> <p>% Low birth weight</p> <p>Mortality rate of the estate community</p>	HIS IMMR Periodic survey reports and returns
7.	Availability improved , accessible MCH and other type of preventive service delivery for estate population	All clinics conducted at the estate clinic setups	HIS Returns, reviews
8.	<p>1. Availability of research evidence on health related behaviors</p> <p>2. Research evidence to show the behavioral change through interventions</p>	<p>Research report</p> <p>Estate and urban community with behavioral change</p>	Research evidence dissemination
9.	Established data base and information system on estate health at the central level	Estate data reporting integrated with the MOH system	Website with updated database

10.	No language barrier in the provision of health services in the estate sector	No of health staff efficient in spoken Tamil No of new health staff recruited from the Tamil speaking Community	Records and returns
11.	Occupational safety standards maintained in field and factory by the estate management	No of estates and factories maintained occupational standards	Factory records Periodic survey reports
12.	Provision of reliable estate urban data in the Ministry of Health for better identification of this vulnerable pocket to improve the national health indicators	Quarterly feedback on Estate and Urban Health indicator to the MOHs and other stakeholders	Verify at the district Estate health review
13.	Preparation of Estate Health policy and Strategic plan	Policy and Strategic plan document completed	Published Estate Health Policy and Strategic plan by 2017
14.	Estate population with easy access for laboratory services	1. No of Estate Hospital with Laboratories 2. No of Mobile laboratories conducted in the estates	Institutional records and returns
15.	No disparity in the urban sector in provision of basic health care services	% of Identified urban settlement with accessible curative and preventive health care service	Records and Returns Institutional records Periodic survey reports
16.	Established database and health information system on urban population at the central level	Established HIS on Urban Health In the EUH	Website with updated database
Strategies/Major activities		<p>1. To increase the Technical capacity and human resource in the Estate and Urban Health Unit.</p> <p>Estate Health</p> <p>2. Conduct situational analysis of the health services received by the estate and urban low income settlements</p> <p>3. Prepare a Estate Health policy document and Strategic plan for the estate population</p> <p>4. Appointing qualified medical personals to all government under taken curative health facilities and preventive health</p>	

	<p>facilities in the estates</p> <ol style="list-style-type: none"> 5. Taking measure to appoint Medical Officer (MO/Estate Health) at the district level with estate population(10 RDHS offices except Monaragalla) to co-ordinate with the central EUH unit and other stakeholders, and to monitor and supervise the health service provision in the estate sector.. 6. Taking measure to Introduce a special transfer scheme for the Medical Officers in the Estate Hospitals to overcome the lack of human resource issues and to make these stations popular 7. Taking measures to introduce some special incentives or allowances for the health staff working in the difficult access estate hospitals 8. Dental services will be established in all government owned estate hospitals 9. Conducting health promotional programmes such as Tobacco and alcohol prevention, on healthy eating, about women empowerment and domestic violence to the estate population etc., in the local language through the district MO/Estate to improve the Nutrition of this population 10. Tamil resource pool will be identified in the EUH at the district and central level to support the relevant directorates to deliver their service effectively and efficiently in the estates 11. Ensuring good infrastructure facility in all the health facilities under taken to Government for the health staff to work comfortably to deliver uninterrupted service. 12. Improving the infrastructure facilities in the field MCH clinic centers in the estate with improvement of roads in the estate sector working with other Hill country new village Infrastructure Development Ministry to ensure the health services are provided inside the estates 13. Carryout continuous Tamil language training programmes to all health staff in the districts working in the estate sector to be efficient in spoken Tamil (one pilot programme is planned in the Badulla district in the year 2016) 14. Developing a mechanism to receive the existing PHDT health return to FHB and to the Estate and Urban Health Unit to maintain the database at the central level 15. Updating Estate and urban Health Information System regularly 16. Conducting research, surveys regularly in the estates for the evidence based planning 17. Recruiting Tamil speaking health staff to work as PHM, PHI and to the Government owned estate hospitals and ensuring a mechanism to see all new cadres will have the Tamil language proficiency to deliver the quality service 18. Tamil speaking Public Health Midwives to be appointed to Estate areas on the basis of one PHM per 2000 estate resident
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	<p>population ; depending on the difficult terrain and resident estate workers are grouped in line-rooms at different divisions in the estate , which are situated far a part</p> <ol style="list-style-type: none"> 19. Tamil speaking PHII to be appointed on the basis of one PHI per 10000 resident estate workers 20. A scooter for the estate PHM and a motorcycle for the estate PHI to be provided by the Government on priority basis considering the difficult terrain these officers have to perform their duties daily 21. The PHDT and the Estate Management to provide Quarters facilities for the Estate PHM and PHI 22. Poly clinics (ANC , CWC , Family Planning) located at Estate divisions to be attended regularly by MOH/AMOH 23. According to the guidelines of vertical programmes (NCD , Mental Health , Cancer control , Sexually Transmitted Infections , Tuberculosis , Leprosy ,Environmental & Occupational Health , Youth ,Elderly & Displaced) are reaching estates in par with other sector or mobile screening will be introduced. PDHS , RDHS , MO (Estate Health) to be responsible for the standard public health care package to the estate population through PHIs and PHMs 24. To establish laboratory services to selected Estate hospital at the initial stage. <p>Urban Health</p> <ol style="list-style-type: none"> 1. Completing the mapping of urban under settlements 2. Preparing a Strategic Health plan for the urban population in the low income settlements 3. Establishing the HIS on urban health linking with relevant Urban councils and Municipal Councils 4. Conducting situation analysis on the identified urban under settlements and to conduct research to understand the health seeking behavior, service availability, disease morbidity etc. 5. Conducting health awareness programmes such as road safety programmes, Dengue prevention, Mental Health, HIV/ AIDS prevention etc. 6. Establish Steering committee involving the multisector stakeholders to improve the health of the population of urban under privileged settlements
Monitoring and Evaluation	<ol style="list-style-type: none"> 1. By comparing the indicators - Demographic Health Survey and others 2. District Estate Health review will be conducted regularly to monitor the programme objectives 3. Central level Medical Wants Committee will be conducted quarterly to monitor and evaluate the Estate health service 4. Monthly review with the PHDT Regional Directors and Health

	managers to evaluate the Estate Health issues. 5. Services offered to urban population groups
References	1. Demographic Health Survey, Sri Lanka, 2006 – 07, Department of Census & Statistics Colombo, Sri Lanka, Health Sector Development project Ministry of Health care & Nutrition Colombo 2. Fernando.D, 2000, Health care systems in transition iii. Sri Lanka, part 1 an overview of Sri Lanka's health care system, Journal of Public Health Medicine, vol 22, no. 1, pp 14-20, printed in Great Britain

Names of the officials who documented the profile:

Dr A.M.A.S.B.Mahamithawa Director / Estate & Urban Health

Dr. Nithershini Periyasamy: CCP/E&UH

Program title	Occupational Health
Focal point	Director / Environmental and Occupational Health
Background /Situation Analysis	<p>Occupational health and safety deals with the prevention of work related injuries and diseases as well as protection and promotion of health of workers. It entails the protection and maintenance of the highest degree of physical, mental and social wellbeing of workers in all occupations. Health and safety of workers is essential for sound economic policy and it is also a basic human right.</p> <p>Sri Lanka has a workforce of around 8.5 million out of which 61% belong to the informal sector. Out of the informal sector, 85% of the workers are engaged in agriculture related work. Out of the employed, 39% belongs to the formal sector which includes around 1.5 million government sector workers as well. Significant disparities in working conditions persisting in Sri Lanka have resulted in unsafe and unhealthy working environments and unhealthy lifestyles for many workers especially the informal sector workers. As a result, majority of workers carry a considerable burden of ill-health and injuries incurring substantial costs for the health system and for the national economy. However, most of these adverse health outcomes can be prevented through better provision of occupational health services.</p>
Target areas & Beneficiaries	All workers in all workplaces
Justification	<p>Globalization, demographic change and technological advancement, have witnessed a significant change in work environments around the world and Sri Lanka is no exception. These changes have resulted in a heightened need for proper health and safety at the workplace. It is important for equity, moral, legal and financial reasons. A healthy workforce will lead to enhanced social welfare and in turn, higher productivity contributing to sustainable development of our country. It will be an asset to our country as the country is aiming for rapid development in the next decade.</p> <p>Even though the fact that provision of occupational health services should be given top priority is well accepted, priority given in practice needs strengthening. Most of the activities have to be reviewed and new activities have to be introduced in the light of new developments in the field. Further, the Ministry of Health has identified NCDs, Nutrition and Modernization of Health System as priority areas for future health development in Sri Lanka and development of Occupational Health services cuts across all such priority areas. Additionally, workplaces have been well recognized as health promoting settings.</p>

	<p>The ministry of health is responsible for the health of the workers as it is responsible for all citizens of this country. Improving the health and quality of life of workers will save millions of rupees from the health budget and strengthen the national economy. Therefore, providing occupational health services to improve the health of workers is an important function of health services of our country.</p>	
Important assumptions / Risks/ Conditions	<p>Occupational health hazards are more common among informal sector working population</p> <p>Integration of primary health care services as an extension of the existing occupational health & safety services will result in better provision of occupational health services</p> <p>Continued financial support will be provided for strengthening of the occupational health services by the Government of Sri Lanka</p> <p>Risks Inadequacies in inter sectoral coordination can disturb the strengthening of occupational health services by the Ministry of Health</p> <p>Conditions The implementation of the national programme will be done through the Provincial and regional health systems. As such, the cooperation of the provincial and regional health authorities is very essential for the implementation. The Ministry of Labour and Labour relations and other relevant stakeholders should support the Ministry of Health for effective implementation of the programme.</p>	
Vision	Healthy workers in healthy working environments	
Mission	To contribute to the sustainable development of Sri Lanka by strengthening the occupational health programme of the Ministry of Health by converting it to an efficient, comprehensive and advanced programme capable of providing advocacy, institutional mechanisms and essential services required to ensure health for all workers in all occupations by bringing together national, provincial and regional stakeholders to mobilize financial, legal, technical and human resources	
Goal	A healthy , safe and productive workforce contributing to sustainable development of Sri Lanka	
Programme Objectives	Indicators	Means of verification
1. Strengthening the capacity of the Ministry	<ul style="list-style-type: none"> Number of environmental and occupational health units 	Administrative documentation by

<p>of Health at national, provincial and district level to provide occupational health services for the working population through primary health care approach</p> <p>2. Reduction of occupational injuries and diseases among workers</p> <p>3. Maintenance and promotion of health among workers</p>	<p>established and strengthened at district level</p> <ul style="list-style-type: none"> • Number of different categories of health staff trained in OH & Safety • % of workplaces confirming to occupational health and safety standards • Incidence of occupational injuries • Incidence of occupational diseases • Incidence of work related diseases • Mortality due to occupational injuries/illness <p>Prevalence of major NCDs in the workforce</p> <ul style="list-style-type: none"> • Morbidity and mortality indicators on Diabetes, Chronic Renal Failure, Asthma Hypertension, IHD, and cancers • % of workers with health records 	<p>PDHS&D/ E&OH</p> <p>Database maintained at E&OH</p> <p>Reviews on E&OH</p> <p>Injury surveillance system</p> <p>Hospital records and reports surveys</p> <p>Statistics from Ministry of Labour and Labour relations</p> <p>Indoor morbidity & mortality return Surveys Registries</p> <p>Returns</p>
<p>Output</p> <p>1. An institutional mechanism to strengthen the surveillance and provision of services at national, provincial and divisional levels in place</p>	<p>Indicators</p> <p>Establishment of the system with policy guidelines</p>	<p>Means of verification</p> <p>Policy document of MoH Data on occupational diseases and injuries available Data on major NCDs among the workforce available</p>
<p>2. A national plan of action for MoH on inter-sectoral collaboration for programme development and enforcement of standards developed and operational</p>	<p>National plan of action in place & operational Standards developed and regulatory framework reviewed & strengthened</p>	<p>Document available Number of inter-agency meetings held Inspection & Rating forms by MoL</p>

1. Laboratory facilities for the analysis of occupational hazards made available	Number of laboratories with enhanced capacity	Administrative documentation Survey
Monitoring and evaluation	National level reviews, District level reviews, Returns and reports, Registries, Supervision by National, Provincial and District level staff	
Reference to Research	<p>The National Occupational Safety and Health Policy of Sri Lanka, Ministry of Labour and Labour Relations</p> <p>Rantanen J. Basic occupational health services, their structure, contents and objectives, SJWEH suppl 2005: no 1.5 – 15</p> <p>Occupational safety and health master plan for Malaysia 2015</p> <p>WHO Global Plan of Action on Workers Health (2008-2017): Baseline for Implementation, 2013</p> <p>Occupational Health and Safety Guidelines, World Bank Group 2007</p>	

Name of the officer who documented the profile:

Dr. Inoka Suraweera, Consultant Community Physician,

Directorate of Environmental and Occupational Health

The CCPSL recommends

In addition to Director / Environmental & Occupational Health , following posts of programe officers are to be appointed

1. Environmental Monitoring (Water , Air and Soil Quality)
2. Environmental Management (Climate Change and Waste Management)

..... White paper published by
College of Community Physicians of Sri Lanka

Program title	Environmental Health
Focal point	Director / Environmental and Occupational Health
Background /Situation Analysis	Environmental health is one of the areas with widest scope ranging from general sanitation to countering the effects of global warming, electromagnetic fields and degradation of ozone layer, to name a few. Environment affects the health of the people in many ways. The World Health Organization (WHO) estimates that environmental risk factors contribute to 24% of the global burden of disease from all causes, and to 23% of deaths. More recent WHO-led analyses indicate that air pollution alone (including ambient and household exposures) was responsible for approximately 7 million early deaths in 2012 with Low and Middle-Income countries having the greatest burden. Indoor and outdoor air pollution, waste management issues, healthcare waste management issues and water pollution cause a significant strain to the environment of Sri Lanka.
Target areas & Beneficiaries	All the people living in Sri Lanka
Justification	Even though the fact that control of environmental influence detrimental to the health should be given top priority is well accepted, priority given in practice is not reasonable. Most of the activities have to be reviewed and new activities have to be introduced in the light of new developments in the fields. Further, attention has to be paid to newly emerging environmental issues such as climate change, E-waste management issues before it becomes too late since those will adversely affect the health of the people in Sri Lanka.
Important assumptions / Risks/ Conditions	The GOSL will take over the responsibility in terms of finances and resource allocation to improve environmental health Conflicting interests among officers at field level as well as national level belonging to different sectors may be an obstacle Cooperation of provincial health authorities is very essential for implementation.
Vision	A healthy living environment for the people of Sri Lanka
Mission	Strengthening environmental health services by bringing together national, provincial and district level stakeholders to mobilize financial and technical resources to ensure success
Goal	Strengthen the provision of environmental health services

Programme Objectives	Indicators	Means of verification
<p>4. Strengthening the capacity of the Ministry of Health at national, provincial and district level to provide environmental health services for people of Sri Lanka</p> <p>5. Strengthening the stakeholder participation in environmental health activities</p> <p>6. Provide the necessary services to promote and protect the community from environmental hazards</p>	<ul style="list-style-type: none"> • Number of environmental and occupational health units established and strengthened at district level • Number of different categories of health staff trained in environmental health • Number of inter sectoral meetings held • Number of water samples tested positive for E.coli • Number of Hospitals with Environment Protection License (EPL) • Number of Hospitals with Scheduled Waste License (SWL) 	<p>Administrative documentation by PDHS& D/ E&OH</p> <p>Reports National Action Plans</p> <p>Returns Reviews Administrative documentation by PDHS, RDHS& D/ E&OH</p>

Output	Indicators	Means of verification
2. An institutional mechanism to strengthen the provision of services at national, provincial and divisional levels in place 3. A national plan of action for MoH on inter-sectoral collaboration developed and operational	Establishment of the system National plan of action in place & operational	Data on water quality available Data on EPL and SWL available Document available Number of inter-agency meetings held
Monitoring and evaluation	National level reviews, District level reviews, Returns and reports, Registries, Supervision by National, Provincial and District level staff	
Reference to Research	Health Sector Development Project Environmental Framework document 2013 WHO Indoor Air Quality Guidelines 2015	

Name of the officer who documented the profile:

Dr. Inoka Suraweera, Consultant Community Physician,

Directorate of Environmental and Occupational Health

CCPSL recommends

Following posts of Programme officers are to be appointed

1. Occupational Health
2. Food Safety - operational
3. Food Safety - Advisory (Policy / Guidelines & Regulatory
4. Strategic information – Environment , Occupational Health and Food Safety

..... White paper

College of Consultant Community Physicians of Sri Lanka

Program title	National Dengue Control Programme
Focal point	DDG (PHS) I , Director / National Dengue Control unit
Back ground/ situation Analysis *(Problem Analysis)	<p>In Sri Lanka over the years 2009 – 2013 average 35,000 per year has been reported with an incidence of 175/100,000 nationally. In 2014, The highest reported no of patients were notified (47,246 patients, 97 deaths and case fatality rate 0.2%). In 2015, there were 29,777 cases and 54 deaths (case fatality rate of 0.18%).</p> <p>Entomological surveys have shown that nearly 50% of the dengue mosquito breeding sites are non- degradable receptacles and nearly 20% are utensils and tanks used to collect and store water for domestic purposes. Building construction sites and public places are other major concern facilitating breeding of dengue mosquitoes. Currently, high risk approach based on the reported cases and entomological indices is adopted to implement control strategies. The Following ten districts are identified as “high – risk” , according to epidemiological and entomological surveys:</p> <p style="text-align: center;"> 1. Colombo 2. Gampaha 3. Kalutara 4. Kandy 5. Jaffna 6. Kurunegala 7. Puttalama 8. Trincomalee 9. Batticalo 10. Ratnapura </p>
GAP ANALYSIS by using UHC tool	
Target areas & Beneficiaries	<p>Target areas :</p> <ul style="list-style-type: none"> • Early detection of the disease to prevent severity, shock stage and death • Source reduction of mosquito breeding • Health education to promote healthy behavior to remove breeding places and adopt health seeking behavior • Vector surveillance to identify “ hot spots” and outbreak prediction and appropriate control measures • Intersectoral collaboration and engagement of the community <p>Beneficiaries :</p> <p>Institutions concerned (MOOH areas and Hospitals managing dengue patients)</p>
Justification	The risk of dengue transmission is directly related to the high Aedes vector mosquito density which is aggravated by urbanization,

	accumulation of water holding solid waste and water storing receptacles etc. in domestic and peri-domestic environment.	
Important assumptions / Risks/ Conditions	The severity of dengue increases with re-infection necessitating hospitalization. The geographical expansion of transmission leads to local outbreaks. More than 50% of Dengue breeding were found in discarded receptacles which has remind a challenge for vector control	
Vision	To minimize the health, economic and social impact of the disease by reversing the rising trend of dengue.	
Mission	To enhance the capacity at the National, provincial, District and Divisional levels for better planning, prediction, early detection, prompt control, containment of outbreaks as well as epidemics through partnerships and application of coordinated efforts in sustainable manner.	
Goal	To reduce endemicity to such an extent that it is no longer a major public health problem in Sri Lanka	
Programmer Objectives (Please prepare separate indicators for each objective)	<p style="text-align: center;">Indicators</p> <ol style="list-style-type: none"> 1. Disease Incidence 2. Vector indices 3. No. of programmers conducted by geographical locations prior to outbreaks 	<p style="text-align: center;">Means of Verification</p> <ol style="list-style-type: none"> 1. hospital surveillance data 2. vector surveillance data
Output (Please prepare separate indicators for each output)	<p style="text-align: center;">Indicators</p> <ol style="list-style-type: none"> 1. Disease incidence 2. Case Fatality Rate 3. No. of entomological surveys per MOH area 	<p style="text-align: center;">Means of Verification</p> <ol style="list-style-type: none"> 1. hospital surveillance data 2. vector surveillance data
Monitoring & Evaluation	<ol style="list-style-type: none"> 1. Disease surveillance data 2. Clinical audits on case management based on, “National Guidelines on Management of DF/DHF” 3. Periodic reviews in high risk districts on vector surveillance and control, outbreak response activities etc. 4. Mortality reviews in hospitals and nationally 	

(*) Reference to Research	<ol style="list-style-type: none"> 1. Laboratory based surveillance on dengue serotypes 2. clinical trial on preventive vaccines 3. Use of novel vector control methods
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Profiles of Health Service Delivery

- Strengthen Epidemiological surveillance of DF/DHF
- Strengthen vector surveillance and integrated vector control
- Strengthen Laboratory surveillance
- improve DF/DHF case management
- enhance inter – sectoral collaboration & dengue control and prevention activities at National, provincial, district and divisional levels
- Enhance community participation for sustainable DF/DHF control and prevention programme and outbreak response

Names of officials who documented the profile:

Dr. Hasitha Tissera - National Coordinator / Dengue Control

Dr. Nimalka PannilaHetti- CCP

Program Title	Malaria Control Programme (Programme for prevention of reintroduction of Malaria)
Focal point	D/ AMC
Background	Malaria was an endemic disease in Sri Lanka and several major epidemics have been experienced in 1934–1935 , 1967-69, 1986-87 and in 1990-92. The first elimination attempt relied on indoor residual spraying (IRS) with DDT to reduce transmission. A 30-year war had an impact on malaria control in Sri Lanka between 2000 and 2009 by reducing accessibility of the program in N-E. Sri Lanka embarked on a malaria elimination programme in 2009 with the aim of eliminating <i>P. falciparum</i> malaria by the end of 2012 and <i>P. vivax</i> malaria by the end of 2014. Sri Lanka achieved a 99.9% reduction in the incidence of malaria from 1999 to 2011. There has been no death due to indigenous malaria since 2007. Since October 2012, there have been no cases of indigenous malaria reported in Sri Lanka Sri Lanka is now at a critical juncture, moving from elimination of indigenous malaria to prevention of re-introduction of malaria
target areas & beneficiaries	The whole country – Sri Lanka and SAARC region
Justification	Sri Lanka has successfully halted indigenous transmission of Malaria since 2012. However imported malaria cases make the country vulnerable to malaria re-introduction in terms of vulnerability (as inter as well as intra country human movements are so rapid and profuse) and & receptivity (as anopheles mosquitoes are abundant) and require surveillance to be front and centre of the strategy for prevention of reintroduction. With the reduction of disease burden in terms of morbidity and mortality, the AMC is now facing a risk of losing donor funding further challenging in sustaining the achieved improved status.
Important assumptions /risks/ conditions	The GOSL Sri Lanka will take over the responsibility in providing financial and other resources to the AMC to sustain the achieved elimination status
Vision	A Malaria-Free Sri Lanka

Mission	Plan and implement a comprehensive programme to sustain intensive surveillance and outbreak preparedness, prevention and rapid response for malaria elimination in Sri Lanka and to prevent re-introduction of malaria to Sri Lanka.		
Programme Objectives	<ol style="list-style-type: none"> 1. To sustain malaria free status by preventing re-introduction of malaria in Sri Lanka 2. To maintain zero mortality due to malaria in Sri Lanka 3. To be eligible for WHO certification of malaria elimination in Sri Lanka by 2016 	<ol style="list-style-type: none"> 1. Confirmed malaria cases per 1000 persons per year 2. Inpatient malaria deaths per 1000 persons per year 	HMIS /AMC
M & E	National Malaria Strategic Plan and M&E framework has been formulated for 2014-2018 period		

Program title	Provision of Evidence based Nutrition services across all strata of Sri Lankan population
Focal point	DDG PHS II Director Nutrition
Back ground / Situation Analysis *(Problem Analysis)	<p>Double burden nutritional issues related to under nutrition & obesity are facing by Sri Lankan population. This is partly related to demographic epidemiological socio cultural and other health related transformations. Nutrition, food safety and food security practices among the population are some of the root causes identified for these issues. Ministry of health is interested in disease burden and health hazards which are related to the food and nutrition to promote healthy foods and healthy life style.</p> <p>Ischemic heart diseases (IHD) ranked as the leading cause of death in Sri Lanka since 1995 while 44% of the hospital deaths attributed to cardiovascular disease and neoplasms (AHB, 2012). Diabetes has been found increased from 2% to almost 9% from 1988 to 2008 with the prevalence of diabetes in urban population as high as 16.4% (Katulandaetal, 2008). In addition, two main determinants of cardiovascular disease and diabetes, namely Body Mass Index (BMI) and central obesity have been found as high as 34.4% (25.2% - overweight and 9.2% - obese) and 26.2% respectively (Katulandaetal, 2010). Among children age groups 0 - 59 months - 12.9 % stunting , 14% wasting , 19.3 % underweight. 9.3% of children of the age group 6- 59 months were anemic the prevalence of low birth weight was 16.9 , prevalence of anemia among pregnant women - 6.7% and prevalence of anemia among lactating women the prevalence was 18.5% and 14.9% of anemia prevalence among non-pregnant women. (2010- nutrition and food security assessment Kurunegala district)The proven approaches to address the above issue are to improve healthy food habits and physical activity of the population.</p>
GAP ANALYSIS by using UHC tool	
Target areas & Beneficiaries	Whole Sri Lankan population
Justification	Multi sectoral coordination among stake holders is essential to address nutrition related issues in Sri Lanka. Sustainable long term nutrition programme targeting high risk groups is also

	necessary to achieve expected outcomes in addressing nutritional issues.	
Important assumptions / Risks / Conditions	<p>Multisectoral coordination across various government and private sectors is identified as an essential for the success of the National Nutrition programme.</p> <p>The concept of nutrition and Healthy life style required to be addressed in all other sectoral policies (government and private sector</p> <p>at present there are 17 other ministries involved in nutrition and healthy lifestyle programmes</p> <p>central focus at the government level to augment the different government agencies and ministries towards the multi sectoral approach for nutrition and healthy living</p>	
Vision	Optimal health for all Sri Lankans through proper nutrition.	
Mission	To be the focal point of the Ministry of Health in achieving optimal wellbeing through a multisectoral approach.	
Goal	Nutrition Division of the Ministry of Health, Nutrition and Indigenous Medicine is responsible for planning, monitoring and evaluation of nutrition related activities to developing policies, regulations and dissemination of knowledge to improve the nutritional status and healthy food practices among Sri Lankan population	
Programme Objectives	Indicators	Means of Verification
<ol style="list-style-type: none"> 1. To strengthen the nutrition Division 2. To develop national nutrition policies, guidelines, circulars and publications 3. To achieve optimum nutrition of the population 4. To establish effective hospital nutrition system 5. To create a supportive environment to have a healthy and safe food 6. To reduced the nutrition related NCD disorders 		

7. To carry out specific surveys and researches related to food and nutrition		
8. To support healthy public policies		
1. To strengthen the nutrition Division		
Output 1.1 reorganized organization structure 1.2 Developed infrastructure 1.3 Developed human resource 1.4 Procurement of 3 vehicles and office equipment 1.5 Established model physical activity centre 1.6 Established Library facility	Indicators 1.1 availability of organization structure 1.2 availability of a master plan 1.3.1 availability of approved cadre 1.3.2 No of staff appointed 1.4. No of vehicle and equipment procured 1.5 availability of Model physical activity centre 1.6 availability of Library facility	Means of Verification 1.1 AHB 1.2 Type plan – ministry of health 1.3 Approved cadre 1.4 Office inventory 1.5 physical activity centre in place and Office inventory 1.6 Library in place and Office inventory
2. To develop national nutrition policies, guidelines, circulars and publications		
2.1 formulate nutrition policies, guidelines, circulars and publications	2.1 Availability of new, updated or amended policies, guidelines, circulars and publications	2.1 Published policies, guidelines, circulars and publications in web site
4 To establish effective hospital nutrition system		
4.1 established nutrition promotion clinics in hospitals 4.2 Developed human resource 4.3 Developed infrastructure 4.4 Developed hospital nutrition surveillance system	4.1 No of nutrition promotion clinics established 4.2 Availability of approved cadre 4.3 No of equipment and materials (IEC) distributed. 4.4 Availability of nutrition surveillance system	4.1 Nutrition promotion clinics in place 4.2 Approved cadre 4.3 Hospital/ Office inventory 4.4 nutrition surveillance system in place and availability of relevant data
5. To create a supportive environment to have a healthy and safe food		

5.1 established healthy canteens and eating places in work places, schools and public places	5.1 No of healthy canteens established	5.1 healthy canteens in place
5.2 Introduced and disseminated healthy canteen guideline for work places	5.2 No of canteen guidelines distributed and disseminated	5.2 availability of guideline in relevant places
5.3 Improved food labeling system through nutrition profiling	5.3.1 consultative meetings conducted / workshops conducted as planned	5.3 food labeling system/ nutrition profiling is in place
5.4 Make recommendations to the authorities regarding nutrition and food safety through observing eating places	5.3.2 availability of food labeling system/ nutrition profiling	5.4 recommendations submitted
5.5 Promoting the farmers, consumers and food manufactures on producing healthy and safe food	5.4 No of eating places observed / recommendations made	5.5 relevant records
5.6 Creating a conducive environment including legislation along with other stakeholders	5.5 No of stakeholders meetings conducted	5.6 legislations gazetted
6. To reduced the nutrition related NCD disorders		
6.1 conducted / participated stakeholder meetings to reduce nutrition related NCD disorders	6.1 stakeholders meeting conducted/ participated	6.1 relevant records / surveys
6.2 Created awareness among stakeholders and general public on healthy food and effects of food related diseases	6.2 No of awareness programmes conducted including media programs	6.3 relevant records/ surveys
7. To carry out specific surveys and researches related to food and nutrition		
7.1 Carried out nutrition/food surveys and facilitating scientific research on micro and macro nutrients	7.1 Surveys planned and conducted	7.1 results published
7.2 published research studies	7.2 Articles published	7.2 Journal articles
8. To support for healthy public policies		
8.1 Advocacy on political leaders	8.1 No of advocacy	minutes of national nutrition

<p>and policy decision makers on make availability and affordability of healthy foods to general population through taxation and legislation</p> <p>8.2 Advocacy on political leaders and policy decision makers on developing healthy public policies.</p> <p>8.3 Participated actively in formulation of healthy public policies with other ministries</p>	<p>meetings conducted</p> <p>8.2 No of advocacy meetings conducted</p> <p>8.3 No of consultations done</p>	<p>steering committee / national nutrition council / MCN subcommittee</p> <p>minutes of the national and provincial meetings related to nutrition</p>
<p>Strategies / Major Activities</p>	<ol style="list-style-type: none"> 1. Approval for the new organization chart and cadre 2. Procurement of three vehicles and office equipment 3. New building / infrastructure for Nutrition Division 4. Training human resources 5. Formulation of nutrition related guidelines, policies, circulars and IEC materials 6. Provide technical guidance and equipment for Nutrition Promotion Clinics 7. Training of trainers programmes and dissemination of current food and nutrition knowledge 8. National level research and surveys related to food and nutrition as well as related disorders and diseases 9. Nutrition surveillance system 10. Intervention programmes to reduce double burden of nutrition 	
<p>Monitoring & Evaluation</p>	<ol style="list-style-type: none"> 1. Assessment of impact of various Nutrition intervention programmes /projects / publications/ through research (qualitative & quantitative), surveys, checklists and different means 2. Monitoring and evaluation of Nutrition Promotion Clinics 3. Monitoring and evaluation of food safety issues 	
<p>(*) Reference to Research</p>		

Names of officials who documented the profile
Dr L B H Denuwara - Director Nutrition division
Dr Bhanuja Wijethilake – Consultant Community Physician
Dr. Chandani Withana
Dr. Erandi S. W.De Silva
Dr. S.V.B.S.Wijayalatha
Dr. Chameera Yapa Abeywardhana

Program title	Food safety
Focal point	Director / Environmental and Occupational Health
Background /Situation Analysis	There is a growing concern about food safety issues in Sri Lanka with the expansion of the food industry along with urbanization, increased trade in fresh and processed food, and more consumption of foods of animal origin. Food safety risk management is important for both public health and market development both domestically and internationally. The globalization of the food supply chain has posed new challenges by way of food safety and quality issues, revive previously controlled risks, and spread contaminated food wider. Food safety/quality and trade-related concerns are becoming more pronounced than before.
Target areas & Beneficiaries	All the people living in Sri Lanka
Justification	Food borne illnesses are still a main health problem in Sri Lanka. Though the mortality due to diarrheal diseases are decreased remarkably morbidity remain high. The full extent and burden of unsafe food, and especially the arising burden of chemical contaminants, has been not well known. Contamination of the food either with microbiological or chemical is detrimental to the health and should be given top priority is well accepted, priority given in practice is not reasonable. Most of the activities have to be reviewed and new activities have to be introduced in the light of new developments in the fields. Further, attention has to be paid to newly emerging chemical contaminant issues before it becomes too late since those will adversely affect the health of the people in Sri Lanka.
Important assumptions / Risks/ Conditions	The GOSL will take over the responsibility in terms of finances and resource allocation to improve the food safety. Conflicting interests among officers at field level as well as national level belonging to different sectors may be an obstacle Cooperation of provincial health authorities is very essential for implementation.
Vision	To have a healthy and productive life through availability of safe food for human consumption for the people of Sri Lanka
Mission	Strengthening food safety services by bringing together national, provincial and district level stakeholders to mobilize financial and technical resources to ensure success

Goal	To ensure the availability of safe, wholesome and honestly presented food supply for human consumption	
Programme Objectives	Indicators	Means of verification
Enhance the knowledge, skills and attitude of authorized officers to enable them to effectively and efficiently carry out food safety activities and monitoring, including regulatory activities	Number of officers trained	Administrative documentation by PDHS& D/ E&OH
Strengthen the linkage with other stakeholders	Number of stakeholder meetings held	Minutes
Formulate / review national policies, regulatory frame-work, regulations or amend / modify them to suit the current / emerging requirements and needs of the country and to improve existing conditions and also to meet future challenges.	Number of reviews conducted Number of regulations formed Number of regulations amended	Reports
Carry out awareness programmes on food safety for health for workers, consumers, food manufacturers, food handlersthroughout the country	Number of awareness programmes conducted for health workers Number of awareness programmes conducted for consumers/ food handlers/ food manufacturers	Administrative documentation D/ E&OH
Strengthen analytical functions to identify food contaminants	Number of laboratories strengthened	Administrative documentation D/ E&OH
Strengthen Research and Development in the area of food safety	Research projects conducted	Reports
Strengthen the Management Information System (MIS) on food safety	Availability of functioning MIS	Reports

Output	Indicators	Means of verification
Regulations of Food Act implemented	Number of regulations amended	Reports
Laboratories with capacities for testing of contaminants in food in place	Number of laboratories strengthened	Reports
MIS on food safety in place		
Monitoring and evaluation	National level reviews, District level reviews, Returns and reports, Registries, Supervision by National, Provincial and District level staff	
References	WHO estimates of the global burden of foodborne diseases J. Munasinghe et al, Food safety in Sri Lanka: problems and solutions, Special issue: Food safety in Asia, 2014, Pages: 37 - 44	

Prepared by

Dr (Ms) Inoka Suraweera

Consultant Community Physician

Directorate of Environmental & Occupational Health

Programme Title	Directorate of Youth, Elderly & Disabled persons (Youth Component)
Focal Point	Director – Youth, Elderly & Disabled persons
Background	<p>Sri Lanka has 4.64 million young people between ages of 15-29 years constituting 23.2% of the population. Young age could be seen as the second formative stage of life. The growth & development that has started during childhood takes a second initiative during this period: the life of an adolescent thus is one of transition, growth, exploration & opportunity. This period of life is considered as one of the most dynamic stages of human development. It is a time of marked physical, emotional, and intellectual changes, as well as changes in social roles, relationships and expectations. It is a time of redefining and developing relationships, with parents, family & peers. It is a period that needs to be understood in relation to the entire continuum of the lifespan. The experiences of childhood have a significant impact on young persons, which in turn lays a foundation for the experiences in adulthood. Country has made steady progress in achieving the millennium Development Goals. However there are many challenges and issues with adolescent and youth being one of the most affected especially in the area of health, education and social aspects. Government of Sri Lanka recognizes that young people are an important part of the population that needs special consideration & resource allocation, and a multisectoral response is required to address their needs and the meaningful participation. Ensuring good nutrition of youth, education on health including life skills related to reproduction availability of health opportunities for physical, psychological wellbeing of youth are some of key areas need to be addressed. At the same time special attention needs to be drawn towards youth who are physically & mentally disabled.</p>
GAP ANALYSIS by using UHC tool	Attached separately

Target area and beneficiaries	Youth of the country	
Justification	Multi stakeholders are involved in health of youth. Their role and responsibilities within the health sector and outside need to be defined and coordinated. Such coordination, monitoring & evaluation are mandatory for the Directorate of Youth, Elderly & Disabled persons as the focal point, in the Ministry of Health, Nutrition & Indigenous Medicine.	
Important assumptions / Risks / Conditions	Directorate of Youth, Elderly & Disabled persons will get the support from all stakeholders in providing health care services for the youth.	
Vision	Happy, Healthy & Skillful Sri Lankan Youth	
Mission	Improve quality health care for youth through improvement of health facilities, diseases prevention and health promotion and provision of technical guidance within the Health Maser Plan in Sri Lanka.	
Goal	Improve well being of the youth and to achieve a healthier more active & more productive youth population in future.	
Programme Objectives	Indicators	Means of verification
1. To formulate policy strategies & guidelines	Availability of youth health policy & strategic plan.	Policy & strategic plan documents
2. To provide guidance to implement	% of districts youth health plan of actions to promote youth health care.	Review and supervision reports

<p>district level activities on promotion of youth health care including capacity building</p> <p>3. To strengthen advocacy and multi sectoral collaboration</p> <p>4. To formulate national information management system</p> <p>5. To strength national & district level monitoring & evaluation system</p>	<p>% of youth friendly health clinics established at district level.</p> <p>Number of TOT programmes conducted for Public Health Staff.</p> <p>Number of Medical Officer of Health areas implemented advocacy programmes for key stakeholders.</p> <p>Number of Medical Officers of Health areas implemented awareness programmes on youth health at community level.</p> <p>Availability of National Information Management System</p> <p>Number of advisory committee meetings conducted</p> <p>Number of steering committee meetings conducted</p> <p>Number of district activity review meetings conducted.</p>	<p>Review and supervision reports</p> <p>Reports returns</p> <p>Records & supervision reports</p> <p>Records & Supervision reports</p> <p>Records & Supervision reports</p> <p>Reports & records</p>
<p>Out Put</p>	<p>Indicators</p>	<p>Means of verification</p>
<p>1. Sensitization of</p>	<p>Number of orientation programmes conducted</p>	<p>Programme records</p>

<p>health care persons on youth health through advocacy</p>	<p>Number of Public Health Care workers trained</p> <p>Number of Medical Officer of Health areas established Youth Health Committee</p>	
<p>2. Strengthen Divisional level community based youth health care. Through setting up of district & district level committee.</p>	<p>Number of youth health care committees established at district level.</p> <p>Number of activities conduct with the involvement of multi stakeholder</p>	<p>Records & Review reports</p>
<p>3. Strengthen multi stakeholder collaboration on youth health care</p>	<p>Number of reviews conducted with multi stakeholders.</p> <p>No of research completed on youth care.</p>	<p>Records & Reports</p>
<p>4. Promotion of evidence of based information mechanism</p>	<p>Number of research on youth care which received allocations from Ministry of Health, Nutrition & Indigenous Medicine.</p>	<p>Records</p>

Monitoring & Evaluation:

Develop & review

1. District Action Plans
2. Supervision visits & conducting progress review meeting with multi stakeholders.
3. Establish & maintain Information Management System.

Research:

Research will be conducted both in central & Provincial Level

Names of officials who documented the profile:

Director – Youth Elderly & Disabled persons

Consultant Community Physician - Youth Elderly & Disabled persons

GAP ANALYSIS

Activity Area	Equity Distribution	Accessibility to all	Quality of service
1. Allocation of funds to set up youth friendly services	Allocated funds will be distributed to maintain equity Island wide service.	Certain activities are not targeted on right based approach.	Drawbacks in comprehensive monitoring system rather than quality.
2. Human Resource Development & capacity building.	Unmet needs on human resource for Youth Health Care.	All allocated funds are not utilized at health institutional level on time. Data are not receiving on time.	No regular funding system..

Programme title	Prevention and control of selected non communicable diseases in Sri Lanka
Focal point	DDG NCD
Background/ Situation analysis * (Problem analysis)	<p>Prevalence of morbidity & mortality due to NCDs has remarkably increased due to socio demographic changes of Sri Lanka. Chronic NCDs namely Cardio vascular diseases, diabetes, cancer and chronic respiratory diseases account for significantly increased burden in Sri Lanka in past two decades . Government hospital statistics indicated that 71% of all annual deaths due to chronic NCD. The risk factors in common to all NCD's.</p> <p>Acute NCD can be categorized into major categories</p> <ol style="list-style-type: none"> 1. Cardio vascular diseases (Ischemic heart diseases, Stroke, Hypertension) 2. Diabetes Mellitus 3. Chronic Respiratory Diseases (COPD) 4. Chronic Renal Diseases* 5. Eye diseases 6. Accidents & Injuries including child injuries <p>Currently prevention of NCD risk factors is a major challenge in reduction of NCD burden. Sri Lankan population is one of the fastest aging population in the world & NCDs are common among elderly.</p>
GAP ANALYSIS by using UHC tool	
Target areas and Beneficiaries	To screen people of age more than 35 years on NCDs
Justification	<p>NCDs account for approximately 85% of the disease burden in Sri Lanka. According Annual Health Bulletin 2013, percentage of deaths due to chronic NCDs is around 70%. Cardiovascular diseases, Diabetes, Cancers & Chronic Respiratory diseases are the leading causes of mortality, morbidity & disability accounted for 29.6%, 9.4%, 3.9% & 8.5% respectively.</p> <p>Provision of quality NCD control programme has become a national priority. Tertiary care facilities in chronic NCDs are very expensive and unaffordable in large scale. Therefore primordial prevention is the most cost effective strategy for a country like Sri Lanka with limited resources.</p>
Important assumptions/ Risks/ Conditions	Multi sectoral involvement in NCD awareness
Vision	A country that is not burdened with chronic Non Communicable Diseases (NCDs), deaths and disabilities.

Mission	Promotion of healthy life styles, reducing the prevalence of common risk factors and providing integrated evidence – based treatment options to diagnosed NCD patients.	
Goal	Healthy aging for all Sri Lankans	
Programme Objectives (please prepare separate indicators for each objective)	Indicators	Means of verification
To reduce premature mortality (less than 65 years) due to chronic NCDs by 2% annually over the next 10 years through expansion of evidence based curative services and individual and community- wide health promotion measures for reduction of risk factors.	Premature mortality rate due to disease specific chronic NCDs	Hospital morbidity and mortality returns
Output (please prepare separate indicators for each objective)	Indicators	Means of verification
Functioning HLC clinics established in island wide	Percentage of persons (40-65 yrs) screen for selected NCDs in HLCs	HLC return
Reduction of complications due to selected chronic NCDs in population	Diseases specific Incidence & prevalence of Complication	IMMR
25% relative reduction in overall mortality from cardiovascular diseases, cancers, Diabetes and COPDs		IMMR
10% relative reduction in the harmful use of alcohol	Per capita consumption of alcohol per year	STEPS survey
30% relative reduction in prevalence of current tobacco use in persons age over 15 years	Tobacco sales per year	STEPS survey
10% relative reduction in prevalence of insufficient physical activity		STEPS survey
30% relative reduction in mean population intake of salt/Na & sugar	Per capita consumption of salt, sugar per year	STEPS survey
25% relative reduction in prevalence of raised blood pressure	Disease specific clinic attendance	IMMR/ STEPS survey
Prevent the rise in obesity & diabetes	BMI Prevalence of Diabetes	STEPS survey

50% relative reduction in the proportion of households using solid fuels (wood, crop residue, dried dung, coal & charcoal) as the primary source of cooking		STEPS survey
50% of eligible people receive drug therapy & counseling (Including glycemic control) to prevent heart attack & strokes)	Clinic attendance rate	Clinic returns
80% availability of affordable basic technologies & essential medicine, including generics, required to treat major NCDs in both public & private facilities	Availability of basic essential medicines in hospitals	Records of Indoor dispensaries & RMSD
25% reduction of overall traumatic injury, poisoning & burns from the present level	Hospital admission rate	IMMR
25% reduction of Chronic Renal diseases	Hospital & clinic admission rates	Hospital & clinic returns
Reduction of prevalence of blindness & low vision	Prevalence rate of blindness & low vision	Hospital statistics
<p>Strategies</p> <ul style="list-style-type: none"> • strengthening policy, regulatory & service delivery measures to reduce risk factors in the population • Cost effective NCD screening programmes at community level • Facilitate provision of optimal NCD care by strengthening & appropriate curative, preventive, rehabilitative & palliative service at each service level • Community empowerment for promotion for healthy lifestyles • Enhance human resource development • Strengthen National Health information including disease & risk factors surveillance • Promote research & development • Ensure sustainable health financing mechanism • Ensure health in all policies 		
Activities		

- National level community empowerment & awareness through enhanced social marketing
- Forward extension of HLCs to community based screening programmes
- Provide adequate technology, equipment, prosthesis & essential medicines to manage NCDs
- Develop national clinical guidelines & management protocols to manage NCDs
- Establish rehabilitative centers for comprehensive NCD care
- Capacity building, infrastructure & research development
- Establishment of registration & documentation with advanced information technology
- To establish NCD bureau to coordinate all NCD prevention activities
- Establish regular National level NCD surveillance system
- Establish a mechanism of supervision, monitoring & evaluation of NCD activities periodically

Monitoring & evaluation

- Periodical review meetings at National & district levels to be conducted
- Periodical returns

(*) Reference to Research

1. Annual Health Bulletin 2013
2. Cabinet Memorandum “ Establishment of a NCD Bureau & approval of a cadre for Deputy Director General (NCD0 and support staff” – MH/AD/01/A/28/2015

GAP ANALYSIS by using UNIVERSAL HEALTH COVERAGE tool

Activity area	Equity of Distribution	Accessibility to all	Quality of Service	Financial Protection of the patient
HLC	Not established in all the levels of curative healthcare institutions	Less community participation Limited service hours	<ul style="list-style-type: none"> • Not proper system of registration & follow up • Lack of trained staff • Lack of infrastructure & basic laboratory facilities 	<ul style="list-style-type: none"> • High out of pocket expenses for transport, lab tests & treatment
Referral	No specialized	Distance	<ul style="list-style-type: none"> • No proper coordinated 	<ul style="list-style-type: none"> • Out of pocket

system	care within the reach of people	from the residence	referral & back referral system <ul style="list-style-type: none"> • Duplication of services • Bypassing of treatment units 	expenditures for basic amenities & transport
Treatment	Advanced technological treatment modalities may not equally distributed	Long waiting lists for specialized care	<ul style="list-style-type: none"> • Lack of trained staff • Non availability of specialized drugs & devices 	<ul style="list-style-type: none"> • Out of pocket expenditures for basic amenities, Drugs, devices & transport
Rehabilitation	No comprehensive rehabilitation care	Only 5 rehabilitation institutions in Sri Lanka	<ul style="list-style-type: none"> • No standard facilities & instruments • Lack of trained staff 	<ul style="list-style-type: none"> • Out of pocket expenditures for basic amenities, Drugs, devices & transport • Consultation fee for specialized care
Follow up			<ul style="list-style-type: none"> • No proper follow up mechanism • No proper monitoring & evaluation system • No proper record keeping & information system 	<ul style="list-style-type: none"> • May incurred out of pocket expenses • Individual payment for all the services

Programme Title	National Cancer Control Programme
Focal Point	Director/ National Cancer Control Programme
Background/ Situation Analysis	<p>National Cancer Control Programme (NCCP) which was established in 1980 is the national focal point for prevention and control of cancers in the country. It is responsible for advocacy for policy formulation, development of strategies and implementation of the activities for cancer prevention and control at national level, monitoring and evaluation of programme activities including surveillance of cancers at all levels and facilitating research related to cancer.</p> <p>NCCP coordinates with all cancer treatment centres, national level institutes (E.g. Directorate of Non Communicable Diseases, Family Health Bureau, Epidemiology Unit) and provincial health ministries to implement cancer control activities in Sri Lanka.</p> <p>NCCP activities are conducted mainly using the government funds and are also supported by the World Health Organization (WHO) including the International Agency for Research on Cancer (IARC) and the World Bank through the Health Sector Development Project for improving facilities for cancer care and capacity building.</p> <p>Cancer prevalence in Sri Lanka is estimated to be around 51,300 (within 5 years of diagnosis) in the country (GLOBOCAN estimates for 2012). The common sites of cancer among males are 1) lip, oral cavity and the pharynx, 2) trachea, bronchus and lungs, 3) oesophagus, 4) colon and rectum and 5) lymphoma. Among females, 1) breast, 2) cervix uteri, 3) thyroid gland, 4) oesophagus, and 5) colon and the rectum are the common sites of cancer. A considerable proportion of cancer cases report to healthcare institutions for diagnosis and treatment in advanced stages of the disease, resulting in poor survival and high mortality rates. Cancer is still associated with a lot of fear and to a lesser extent stigma in the country.</p> <p>The overall crude cancer incidence rate (CR) was 82.6 per 100,000 population and the age standardized rate (ASR) was 87.5 per 100,000 population in 2009. The same ten cancer types had remained in the top ten positions since 2001.</p> <p>A gradual increase in the incidence of cancers has been noted during the past 30 years. The crude cancer incidence rate (CR) which was 31.6 per 100,000 population in 1985 has increased to 82.6 in 2009 (Sri Lanka Cancer Registry data).</p>
GAP ANALYSIS by using UHC tool	

<p>Target areas and Beneficiaries</p>	<p>Target Areas:</p> <ul style="list-style-type: none"> • Primary prevention of cancers • Strengthen cancer early detection facilities • Strengthen equitable access to cancer treatment • Establish palliative care services at hospital, hospice and home (community) settings <p>Beneficiaries:</p> <p>The beneficiaries of primary prevention and early detection would be the population of Sri Lanka and in the case of treatment and palliative care, all cancer patients and their families.</p>
<p>Justification</p>	<p>It is universally accepted that 1/3rd of all cancers could be prevented and another 1/3rd could be successfully treated if detected early. In a country with an increasing elderly population an increase in the incidence of cancers is expected. However the age standardized incidence (ASR) does not get affected with this demographic transition.</p> <p>As the ASR is also increasing in the country mostly due to increasing adoption of cancer causing behaviours by the people it is very important to raise public awareness on the risk factors of cancer and the importance of having a healthy lifestyle not only for the prevention of cancers but also to control other main NCDs as well.</p> <p>In addition to creating awareness on primary prevention of preventable cancers, some of the cancers which are connected to viral infections could be controlled by immunization.</p> <p>It is important to raise public awareness on early symptoms of cancers and establish / strengthen programmes targeting early detection of cancers as early detection of some cancers lead to successful treatment outcomes. Eg. Oral, breast and cervical cancers.</p> <p>In Sri Lanka, the three most common cancers are breast, oral and cervical cancers where successful strategies could be implemented for either primary prevention and/or early detection of these three cancers. By these means a substantial proportion of cancers could be controlled as these three cancers contribute to almost 33% of all cancers.</p>
<p>Important assumptions/ Risks/ Conditions</p>	<ol style="list-style-type: none"> 1. Two third of all cancer reported are either preventable or curable if detected early. 2. Significant proportion of cancers are diagnosed at late stages that lead to poor survival and increased mortality rate. 3. Facilities in healthcare settings for cancer screening are not optimal.

Vision	'A country with a low incidence of preventable cancers and high survival rates with good quality of life and minimal disabilities & suffering from effects of cancers'
Mission	'To reduce the incidence of cancers by controlling and combating determinants of cancers, ensuring early detection and providing a holistic and accessible continuum of cancer care which address curative treatment options to end of life care through an evidence-based approach'
Goal	To reduce the incidence of preventable cancers, to detect early detectable cancers at an early stage and to provide holistic cancer care to all cancer patients in the country in an equitable manner.

Programme Objectives	Indicators	Means of verification
1. Ensure primary prevention of cancers by addressing risk factors and determinants by improved public awareness and empowerment.	<ul style="list-style-type: none"> • Incidence rates of preventable cancers Eg. Oral, cervical, lung cancers • Prevalence of Smoking/Alcohol • Prevalence of Betel chewing 	<p>Cancer registry data</p> <p>STEP survey and research findings</p>
2. Advocate for early detection of cancers by improved public awareness and relevant service providers, particularly primary care providers, through opportunistic screening of asymptomatic populations and, if clinically suspicious, ensure prompt referral of individuals with symptoms and signs suggestive of cancer in symptomatic populations leading to early clinical diagnosis.	<ul style="list-style-type: none"> • Percentage of cancers detected at an early stage (stages I and II) out of all cancers for breast, cervical and oral cancers 	<p>Cancer registry data</p>
3. Ensure sustained and equitable access to diagnosis and treatment facilities for cancers.	<ul style="list-style-type: none"> • Proportion of provinces having a comprehensive cancer diagnostic & treatment facility • Mortality / Survival rates of cancers 	<p>Annual reports of hospitals having cancer treatment centres</p> <p>Registrar General Department data, Research studies</p>

Programme Objectives	Indicators	Means of verification
4. Ensure rehabilitation, survivorship and palliative care facilities for cancer patients and support to their care givers at all levels.	<ul style="list-style-type: none"> • Proportion of hospitals up to secondary care level (TH, PGH, DGH, BH) having morphine for cancer pain relief 	Annual report of morphine distribution by Medical Supplies Division (MSD) and RMSDs
5. Strengthen cancer information systems and surveillance to monitor the progress and to evaluate the outcomes of cancer control actions.	<ul style="list-style-type: none"> • Proportion of cancer incidence data sources sending information to the national database out of all data sources 	Report of National Cancer Registry
6. Promote professional education of doctors, nurses, technicians and health workers to augment trained human resources.	<ul style="list-style-type: none"> • Proportion of different categories of healthcare staff trained annually out of the planned 	Annual performance reports of relevant national and provincial organizations
7. Promote research and utilization of its findings for prevention and control of cancers.	<ul style="list-style-type: none"> • No. of research conducted annually 	Journal articles Report of Annual Research Symposium

Output	Indicators	Means of verification
1. Health care workers, school teachers and students etc. are trained on prevention and control of cancers regularly	<ul style="list-style-type: none"> • No. of PHC staff, school teachers, students, etc. trained 	Annual performance reports of relevant national and provincial organizations
2. Media campaigns are conducted to promote healthy life styles	<ul style="list-style-type: none"> • No. of media campaigns conducted 	Annual performance report of the NCCP
3. Cancer screening services are available at PHC level	<ul style="list-style-type: none"> • Proportion of females of the target age group screened for cervical and breast cancers • Proportion of high risk individuals screened by dental surgeons out of the total identified 	Annual reports of WWC programme and HLCs Annual reports of Regional Dental Surgeons
4. Cancer treatment facilities are available at provincial/district levels	<ul style="list-style-type: none"> • Number of comprehensive cancer treatment centers functioning • Number of cancer chemotherapy units functioning 	Annual reports of hospitals having cancer treatment centres

5. A web-based cancer surveillance system is available	• Availability of web-based cancer surveillance system	Report of NCCP
6. All districts are adhering to the shared care plan for cancer patients	• Proportion of districts adhering to the shared care plan	Supervisory notes of NCCP
7. Guidelines on different aspects of palliative care available	• No. of palliative care guidelines available on different aspects	Report of NCCP

Strategies/ Major Activities	<ol style="list-style-type: none"> 1. Cancer control activities are integrated with the PHC set up 2. Implement interventions including legislation to eliminate or reduce tobacco use in any form, alcohol, unhealthy diet, areca nut, physical inactivity and other cancer specific modifiable risk factors. 3. National cancer early detection centre is established 4. Comprehensive cancer early detection facilities are established at secondary and tertiary care hospitals in a phase-out manner 5. Ensure availability of essential drugs and basic curative and adjuvant chemotherapy at cancer treatment centres 6. Integrating cancer information system with national health information and civil registration systems 7. Coordinate cancer control activities at national and provincial levels
Monitoring & Evaluation	<p>Monitoring and evaluation of cancer control activities will be done through;</p> <ol style="list-style-type: none"> 1. National Advisory Committee on Cancer Control 2. National and district reviews 3. Cancer surveillance system 4. National cancer information system 5. Periodical returns from the Well Women Clinics

Name of the officer who documented the profile:

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