

Update on Evidence Based Practices



Update on the health status of plantation community in Sri Lanka

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Abstract

Plantation community referred to as the estate population, are the descendants of Indian migrants. They came to Sri Lanka during the British era to work in estates and had been living with poor facilities. 'Line rooms' have been their residence to date. This is the root cause of most health hazards among the plantation community. Health indicators of this population are not in par with the national figures. Poverty and poor cash management, unsatisfactory living conditions, lack of safe water and sanitary facilities, low level of education, difficult terrain, poor transport facilities with poor access to health care services, and language barriers are some of the major factors affecting their economic and social wellbeing negatively.

This community is identified as a vulnerable population in the country, as their health system is unique and different from that in the rest of the country. Plantation community partially receives national health services. Curative health services existing in the estate sector are provided through the estate management in most estates. The existing health system in the plantation sector has evolved over time through various legal enactments, and needs further reforms to standardize the health of this community. It is recommended to integrate the health services in plantation sector into the national health system, and thereby enable the system to function under the provincial health authority equitably as in other sectors.

Integration of the present plantation sector health services to the national health system is a long-felt need. However, there are many other factors that need to be considered in parallel with this integration process, such as empowering the society with equal educational opportunities, providing adequate transport facilities, improving living conditions, water and sanitary facilities, and creating opportunities for them to receive services in the language of their preference.

Introduction

Estate population, the Indian migrants brought to Sri Lanka by the British Colonials during 1820s were sent as labourers initially to coffee, and later to tea and rubber plantations (1). Today, there is about one million of this population located in Central, Uva, Sabaragamuwa, Western and Southern Provinces of Sri Lanka (2).

At that time, they lived a miserable life in addition to working hard for their livelihood. With females being the major working group, their sufferings were numerous. After the independence of the country, the estate population faced several other problems, the major one being losing their citizenship. This made them highly insecure and in turn affected their health and wellbeing.

Brief history of the plantation community in Sri Lanka

Upon their arrival in the country, they were made to do a difficult journey of about 130 miles on foot to reach the district of Matale. From there, they were sent to tea estates in the hill country. Many died during this hazardous walk due to exhaustion, hunger, starvation and communicable diseases such as small pox and cholera (3). On reaching the destination, they cleared jungles in remote areas to cultivate coffee and tea. Many more died during this mission due to animal attacks and snake bite, along with exhaustion, starvation, hunger and illness. They were kept inside tea plantations within small rooms called 'line rooms', which could hardly accommodate a family and had no ventilation or privacy. These remain as the major determinants of their poor health status even today (3-6).

Over 50% of the workers were females and the poor conditions in estates affected their lives negatively in every aspect of social, economic and educational achievement, child care and rear, nutrition and health

(1). Being confined to estates, they continued to maintain their own culture from where they arrived from, and were not much aware of what was happening outside the estates and vice versa, all of which were under the strict control of the British planters (4-6).

British Colonials developed the plantation sector economy in Sri Lanka. In order to improve the plantation industry, they started key developmental work in the rest of the country. The present preventive and curative healthcare systems have originated from this work (3).

Vulnerability of the estate sector

Social and health indicators of the estate sector are very poor compared to the national figures, as shown in the past demographic and health surveys (DHS) (7-8) and recent surveys done in the estate sector to scale out the issues (9-11).

Table 1 demonstrates that basic facilities are not equally distributed and accessible in the estate sector.

Table 1. Socio-economic and educational status, and health care service accessibility in the estate sector compared to the national level based on demographic and health surveys

Indicators	DHS 2006-07		DHS 2016	
	Estate	National	Estate	National
Households in the lowest wealth quintile (%)	64.0		71	20.0
Type of housing (line rooms or row rooms) (%)	57.9	3.6		
Access to safe drinking water (%)	52.4	81.1	43	90
Access to improved sanitation facility (%)	66.3	83.0	79	90
Literacy of ever married women aged 15-49 years (%)	59.1	90.3	74.4	93.8
Type of occupation of women aged 15-49 years doing unskilled jobs (%)	89.9	36.1	59.4	33.9
Female household population having no education (%)	19.9	6.6	14.5	4.2
Male household population having no education (%)	8.0	3.3		
Distance to health facility as a problem to access health care (%)	50.6	19.5		
Need a transport to access health care (%)	47.4	19.3		
Home delivery (%)	2.2	0.6	0.7	0.1
Under-five children who did not have the birth certificate (%)	38.0	17.2		

Sources: Demographic and Health Surveys in 2006-07 and 2016. Colombo: Department of Census & Statistics

Of the several factors identified, poverty is the major underlying one (12-13). They are daily paid workers with insecure jobs (4). This has forced them to migrate both internally and externally to combat poverty. Poor living conditions notably in 'line rooms' are known to cause both social and health related issues in the estate sector (5-6). Difficult terrain with poor road access and transport facilities are the other factors leading to poor access to basic needs such as education and health care services. Low level of education due to school dropout (9) has led to low literacy among men and women (Table 1). This affects their empowerment, leading to under nutrition, alcoholism and gender-based violence along with attitudes on insecure future plans among the youth. These are serious issues which have multiple effects on their health and social wellbeing. In addition, ignorance on the importance of health needs, poor cash management due to the ignorance of priority need identification and language barrier have been identified as key problems in the estate sector (2).

Despite having poor health indicators, the estate population serves as a high revenue earner for the country. Despite this contribution, they suffer the most to receive their basic right to health as a citizen of this country.

Disparity in health and nutrition in the estate sector as a factor for their vulnerability

The recent World Bank report on Multi-sectoral Nutritional Assessment of Estate Sector clearly shows that those living in the estate sector comprise a 'disadvantaged population' (14). For example, although

trends on child mortality seem to show a drastic decline in the estate sector (7-8, 15) (Table 2), it is still lagging behind the national stream. This needs immediate attention to improve it in par with the national figures.

There is evidence on inequity and sector disparity existing in the estate sector, which has pushed them to be identified as a vulnerable population (16-17). Maternal mortality ratio (MMR) for the estate sector is not available separately. However, when considering a proxy measure of MMR of certain districts with a high estate population such as Kegalle, Nuwara Eliya and Badulla, (72.9, 55.0, and 45.4 per 100,000 live births, respectively), it was comparatively higher than the national figure of 32.5 per 100,000 live births for the year 2015 (18).

The recent report of World Bank (14) provides evidence on the need for concrete action in the estate sector to improve health and nutrition of under-five year old children and pregnant mothers. The nutritional status of under-five year old children in the estate sector according to this report is compared with the report of DHS 2006 in Table 3. Although stunting has come down by 6 points over a period of 10 years, underweight and wasting have increased by 5 and 3 points. This highlights the need for urgent action. Yet again, one might argue that at least there is a downward trend observed in the estate sector in the DHS 2016 report, whereas the national figure has been stagnant or reversed to obesity in some urban pockets. This is to be cautiously handled in both sectors with different strategies, which is clearly highlighted in the National Strategy for Infant and Young Child Feeding Sri Lanka (19).

Table 2. Infant and child mortality in estate sector with national comparison of DHS 2000, 2006 and 2016

Indicators	Estate			Sri Lanka		
	2000	2006-07	2016	2000	2006-07	2016
Infant mortality rate per 1000 live births	47.5	29.0	13	13.3	15	10
Neonatal mortality rate per 1000 live births	31.0	18.0	8	13.9	11	7
Under-five mortality rate per 1000 live births	51.6	33	15	20.8	21	11

Sources: Demographic and Health Surveys in 2000, 2006-07 and 2016. Colombo: Department of Census & Statistics.

Table 3. Nutritional status of under five children and pregnant mothers in the estate sector versus national level

Indicators	DHS 2006-07		DHS 2016		World Bank 2017
	Estate	National	Estate	National	Estate
Under five children					
Stunting (%)	42.2	17.3	31.7	17.3	36.4
Underweight (%)	30.1	21.1	29.7	20.5	35.9
Wasting (%)	13.5	14.7	13.4	15.1	16.0
Anemia (%)	39.3	32.6			38.4
Anemia among pregnant women (%)					32.3
Women (15-49 years) BMI <18.5 (%)	33.3	16.2	22	9.1	
Women <145 cm in height (%)	17.1	10.6	14.9	7.2	
Low birth weight (%)	31.0	16.6	25.4	15.7	27.8

Sources: Multi-sectoral Nutrition Assessment in the Estate Sector Sri Lanka, World Bank 2017; Demographic and Health Survey 2006-07 and 2016

Estate management and their influence on healthcare service provision

'Estate' sector is defined as areas with plantations where there are 20 or more acres in land and 10 or more resident labourers (20). Tea and rubber estates in Sri Lanka are under the governance of estate management of either plantation companies or private ownership. Accordingly, estates are categorized into three types;

1. Regional plantation company estates – These are large-scale estates following the re-structuring of estates with privatization and leased out to plantation companies in 1995
2. Janatha Estate Development Board (JEDB)/ Sri Lanka State Plantation Cooperation (SLSPC) governed government estates – Government management boards formed at the time of land reform period and managing the estates not privatized during the period of 1992
3. Private or small holders' estates – These are small estates owned by private parties under the Tea Small Holdings Development Authority (TSHDA)

(21). Estates coming under this category have their own rules and regulations. Therefore, any person entering these estates should get permission from the respective estate management in terms of service delivery – 'Plantation raj' system (22). Even the local authorities cannot provide their services without this permission. This highlights that despite being citizens of this country, the rights of estate workers to receive services directly from the government officials differ in the estate sector. Therefore, healthcare service delivery agents should be aware of this restriction, which is a limitation and major challenge leading to the vulnerability of this population.

Past and present health care services in the plantation sector

Estate sector health care provision is different from that in the rural and urban sectors of Sri Lanka. It has evolved in four stages; 1) During the British period, 2) During the nationalization of estates, 3) After the privatization of estates, and 4) Transient period in the integration of plantation health services into the national system.

1) During the British period

During the British period, health of the estate labourers was looked after by the planters themselves by keeping stock of drugs with them (3). Estate dispensary system evolved and the number of dispensaries inside the estates grew in number from 15 in 1893 to 143 in 1906 due to the Commission's (1879) recommendation to provide treatment facilities closer to their residence to reduce mortality and morbidity among them (3). In 1912, Medical Wants Ordinance stressed the involvement of district medical officer in estates to safeguard the health of this immigrant population (23).

2) During the nationalization of estates

This appears to be the golden era of plantation health with the direct involvement of government. Plantations were nationalized under the Land Reform Law of 1972 (4), with which health care provision became the government responsibility. JEDB and SLSPC were the state managing boards comprising the Social Developed Division (SDD) for managing welfare facilities of the estate population (24). This unit with the guidance of Ministry of Health supported the Family Health Project (FHP) funded by the UNFPA in year 1973 under the supervision of Family Health Bureau (FHB). There was a medical officer in charge placed at the FHB for implementation of the project (3). Under this project, ten medical officers were appointed with transport facilities and public health nursing sisters (PHNS) to assist them in carrying out the work in estates.

Following the implementation of this project, a network of 200 polyclinics in the estates was established with the support of SDD (3). Unfortunately, this project came to an end in the year 1981 when the SDD appointed their own medical staff to manage health care provision in the estates. Similarly during this period, UNICEF supported the expanded programme on immunization (EPI) in the estates along with improved water and sanitation project. Another important milestone was the building of maternity wards in the estates with the assistance of Asian Development Bank (ADB) and World Bank to reduce maternal and infant mortality in the estates. During this period, an increased number of public health midwives (PHM) were appointed to the estates and paid by the companies to look after the wellbeing of mother and child. This was evident by the reduction of infant mortality rate (IMR) from 104 per 1000 live

births in 1973 to 38.6 per 1000 live births by year 1999. This was the achievement through government direct interventions through donor agencies (3).

3) After the privatization of estates

Land reform period ceased. The state managed plantation sector was privatized in two phases in 1992 and 1995. After privatization, the well-functioning SDD was closed down and replaced by a new limited liability company known as the Plantation Housing and Social Welfare Trust (PHSWT) established under the Companies Act. Currently, this is called Plantation Human Development Trust (PHDT) and the provision of health services was under the estate management and through estate medical assistants (EMA). Medical treatment was provided in the estate dispensaries while the EMAs were paid by the estate management, where the drugs were supplied by the Ministry of Health through PHDT (3). However, after 30 years of privatization, it is seen that health indicators of the estate population are far behind the national figure as shown in Tables 1-3. This continues to draw attention to the plantation workers as a vulnerable population within the well-established health system (5, 7-8).

4) Transient period in the integration of plantation health services into the national health system

Preventive health services such as maternal and child health services within the family health context are provided in estates by the MOH office staff both at home and in clinic similar to the rest of the country (25). Today all estates are demarcated under 88 MOH areas in the country. Government PHMs are presently working in estates under the leadership of MOH and supervised at the district, provincial and national levels. However, not all the preventive health programmes of the Ministry of Health reach the estate community regularly. Further, there are several vertical programmes delivered through the structured provincial health system, which have not reached the estate sector due to administrative issues.

Curative services are provided in estates by the EMAs in estate dispensaries, with free of charge drugs supplied through the medical supplies division of the Ministry of Health. This is limited to outpatient services. The estate population also receives curative services (both out-patient and in-patient depending on the type of hospital) including dental services, from qualified

health staff in government hospitals in the nearest location. They are sent to referral centres (secondary or tertiary care hospitals) depending on the health care service need or to any part of the country for specialist care.

Government initiatives to integrate plantation health services to the national system

Certain interventions in the past have proven the success of the government in taking over the estate health services. Starting from 1970s, FHP was implemented in estates through FHB. Presently, the National Plan of Action (NPA) for Social Development of Plantation Community 2016-2020 is an initiation by the ministry of hill country new villages and infrastructure development supported by the UNDP which was approved by the Cabinet in 2016. This again stressed the need for integration of estate health into the national system with identified action plans (2). Other initiatives taken in the past are as follows;

Nationalization of estate health started from 1994 where 56 assistant medical officers (AMOs) were appointed to estate hospitals to be supervised by the Ministry of Health, but this was not sustained except in a few facilities due to no support from the estate management (Personal communication with AMOs in the district of Kalutara). In 1997, the Presidential Task Force recommended the establishment of a separate directorate in the Ministry of Health to improve the health of estate population and thereby the Estate and Urban Health (EUH) was established as the national focal point in the ministry.

Thereafter, the cabinet paper 97/4788/14/074 dated 10.10.1997 was approved for taking over estate health services by the government. Since then, there have been several cabinet papers to improve estate health services including human resource to serve in the estate sector. Some of these cabinet papers are: cabinet paper 05/0215/008/008 dated 31.01.2005 on "Recruitment of Public Health Midwives for Estate Hospitals", cabinet paper 09/1348/311/064 and memorandum dated 23.07.2009 on "Revision of qualification of to fill vacancies in the post of Midwife and revision of allowances payable to trainees" to recruit PHMs from the divisional secretariat area to appoint to the same estates.

So far, 44 estate hospitals are officially taken over by the government under the provincial health

authorities. Estate Health Infrastructure Development project of 600 million was utilized to improve the infrastructure of these hospitals including the living facilities.

In the year 2012, eligible and qualified PHMs in the estate sector were recruited to the government service. PHMs were also newly appointed from estates or from the same divisional secretariat area with the cabinet approval to lower their recruitment qualification. So far, 235 PHMs have been appointed to cover estate areas and the impact is evident in the recent DHS 2016 with reduced infant and neonatal mortality rates.

Until 2007, preventive health services were provided to the estate population through the estate management, but received MOH services in the area. However, the service quality varied under different management. Therefore in 2007, preventive health services were taken over by provincial health authorities through a cabinet memorandum 07/1157/311/033 dated 09/07/2007, assuring the government health policy goal of affordable and accessible health service to all (18, 25). Preventive health services under the provincial health authority signify an important milestone. In contrast, the curative sector issues are yet to be sorted out.

Proposed estate health policy published in the Health Master Plan is another initiative (17, 26-27). However it needs to be developed with strategic plans to address all the issues discussed previously.

Present challenges obstructing the integration process

The presence of multiple stakeholders in the plantation health system is a major challenge. Apart from plantation companies, PHDT with its health department and regional extension (organization structure consisting of director health, regional health managers, health project officers, EMAs and PHMs) in all seven plantation regions namely Kandy, Nuwara Eliya, Hatton, Kegalle, Ratnapura, Badulla and Galle (28) has created confusion among the service providers including health and donor agencies due to service duplications. Recent distribution of nutrition supplementation (Nutribar) among pre-school children in estates by PHDT without the concurrence of the Ministry of Health and provincial health authorities

especially the MOH is yet service confusion. This will adversely affect the continuous service provision by government health staff in the plantation sector.

Other challenges consist of remote geographical location, difficult access and transport facility to both main and internal divisions of the estate, and minimal or lack of support and coordination from the estate management. Their own health structure further aggravates the issue of cooperation between the government health staff and plantation company staff. Especially the PHMs working in estates face the difficulty of getting the maximum support from them to render their routine duty (29). These affect their timely and uninterrupted service delivery. In addition, some of these PHMs are not provided with safe and decent accommodation inside the estate while those provided are also indefinite with change of the estate managers. Language is another major barrier for most of the health staff placed in the estate sector in terms of effective service delivery. Difficult transport and accommodation issues have also made estates a difficult and unpopular station (29).

Human resource allocation to those remotely placed hospitals is another hurdle faced. The MOH and his team continue to provide services with maximum capacity. This was evident in the recent World Bank report of multi-sectoral nutrition assessment in the estate sector, showing regular visits by PHMs of 82% which was only 42% in the DHS 2000 report (14).

EUH is also functioning with limited human resources to monitor activities in the field. As most of the implementing areas are away from the central unit, a regional extension and coordination body with this unit is necessary to speed up the result-based outcomes in the estate sector.

Nationalization of estate health faces numerous practical issues. The major problem is the land acquisition process when taking over hospitals by the Provincial Council. This is very slow. Cooperation of the estate management with hospital authority is also poor in most places (29-30). Without the land acquisition, government funds of the Ministry of Health cannot be utilized to renovate or newly construct buildings in estate health institutions. This, along with

human resource constraints and transport difficulties, has delayed the progress of the integration of estate health into national health system for more than 20 years since 1996.

Although authorities of the plantation sector attended the meeting chaired by the Hon. Prime Minister in 2009 (minutes of the parliament sub-committee meeting) and agreed to provide facilities such as housing quarters, electricity, water and ambulance by the estate management to ensure smooth functioning and to give their fullest support to provincial health authorities, most of the estate managements are continuously violating this. Inconvenience and service interruption are caused by not providing quarters, electricity and water facilities inside the estates. This has been expressed repeatedly in many forums by provincial health authorities and discussed with the plantation representatives and officials of PHDT at high level meetings, yet this issue continues to cause difficulties for the MOH health staff and provincial health staff to work smoothly in the estate sector. This situation is worsened as many plantation companies own unique authoritative captivity in the estate sector (4).

There are 53 estate PHMs working under the estate management who had not acquired the required recruitment educational qualification despite serving for more than 10 years in these difficult areas and are being left out from the government service. Their service to estate community is immense and should be considered for some positive decision over their future.

Conclusion

Health of the estate community is poor compared to the rest of the population, which has made this community a vulnerable population in Sri Lanka. There is health service inequity existing in estates due to the delayed process of expected reforms in the estate sector owing to poor cooperation of the estate management and multiple stakeholder interferences in the provision of health services. This has to be addressed diplomatically to improve the health service accessibility of people living in the estate sector, along with the improvement of their social, educational and economic disparities.

Recommendations

1. To hasten the process of integration of curative health services of the estate sector into the national stream
2. To re-assign health institutions under the estate management to provincial government to regularize the service. These institutions could be taken over to the government to function as divisional hospitals or primary medical care unit in the needed locations after careful assessment. Others could be converted as clinic centres with PHM living quarters including their office premises. Therefore, any policy decision taken will be directly implemented in these centres under the leadership of MOHs. PHM quarters and office in the same building will make these services accessible to the community. Renovations of these building could be done with government funds to maintain the standards of the clinic in par with other rural and urban clinics.
3. To provide adequate human resources to the estate sector hospitals. There should be packages such as introducing a special post-intern list to serve for two years in estate hospitals.
4. To provide special monthly allowance to all the staff working in estate hospitals
5. To strengthen the central EUH with regional coordinators (medical officers in estate health) and facilities to improve the monitoring activity effectively in estates.
6. To implement the proposed Estate Health Policy with strategic plan.
7. To develop a memorandum of understanding between the multi-sector stakeholders to work with the EUH.
8. To promote continuous research activities in the estate sector for more evidence to assist policy planning and the implementation process.

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