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PRIMARY HEALTH CARE SERVICES IN URBAN AREAS OF TAMIL NADU – BACKGROUND, SWOT ANALYSIS AND RECOMMENDATIONS

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Abstract

ABSTRACT: Indian is witnessing the challenge of urbanizing trend and Tamilnadu is leading the phenomenon with significant proportion of slum population. The urban poor are most vulnerable and SDG indicators for them shows unfavorable results. The framework of urban health system is also changing with introduction of NUHM. Improvement in civil infrastructure, provision of human resources for the health with well-coordinated urban health governance are the key priority areas to improve the service delivery.

KEYWORDS: Urban health, governance issues, public health cadre, Wellness centres

BACKGROUND

India is witnessing rapid urbanization, with proportion of urban population doubling from about 18% in 1960 to 34% in 2019. In ten years between 2001 and 2011 there was a net increase of almost 100 million people in urban areas. In Tamil Nadu 48.5 percent of population lives in urban areas when compared to the national average of 31 percent. Urban population growth in the state (at 27 percent during 2001-11) outpaced rural population growth (6 percent during the same period) and overall urban population in Tamil Nadu could have exceeded rural population at present. Also, while urban population in Tamil Nadu grew by 27 percent, reported slum population has doubled from 28.38 lakh to approximately 59 lakhs, in the same period between 2001 and 2011.

Urbanization is often characterized as beneficial for economic and social growth. But there is growing evidence on the disproportionate burden of disease and ill-health among the urban poor compared to non-poor households in urban areas. Life expectancy among the poorest is lower by 9.1 years and 6.2 years among men and women, respectively, compared to the richest in urban areas. Unhygienic living conditions, environmental pollution, increased exposure to accidents, high proportion of out of pocket expenditure by households in lowest wealth quintile are distinct problems among urban poor. It is necessary to have disaggregated data for urban areas to understand and address the health inequalities among different sections of the urban population.

Health system in Tamil Nadu strives to address public health through the robust infrastructure and effective public health initiatives. The state is aiming to provide health services which are easily accessible to the public. Nationally, despite the availability of services, there is large inequality in distribution, access, and affordability within the urban areas and between rural and urban areas.

Evolution of Public Health System in Urban areas

Historically the urban health systems in most cities of India were developed in context of containment of epidemic disease control. In Tamil Nadu, the primordial public health determinants like providing safe water, sanitation and drainage system were taken care by the sanitary wing of the local bodies usually headed by the Health Officer or Sanitary officer or Sanitary Inspector under the overall supervision of the Municipal Commissioner. The preventive public health was equated mostly with environmental sanitation and vaccination services for life threatening communicable diseases. The government run general hospital in the cities and towns gave the secondary and curative care to the public. The dispensary and maternity homes of local bodies gave the institutional outpatient care and MCH services. In between large number of private players provide curative services. The primary preventive care was lost among them unlike their



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rural counterparts. The rural health statistics states that, there is 44 percent shortfall of PHCs in urban areas as required the norms. In Tamilnadu, the there are the rural areas are saturated with PHCs compared to 43 percent shortfall in urban areas.⁴

The 'urban health system' is fragmented, fragile and poorly governed, with blurred lines of responsibility and accountability between multiple government and private agencies.⁵ The model of British era urban planning such as keeping away the barracks and core city at a safe distance from the public to keep away the contagious diseases has affected the process of urbanization in most of the cities in India.⁶ Additionally, the unequal growth in the size of urban towns and cities, the governance structures in the Urban health are not uniform unlike their rural counterparts. Their role was limited to control of communicable Diseases like Cholera, Plague, flu pandemics of British era. With successful eradication of few communicable diseases, the growing importance of Maternal and Child Health Services, the evolution of Non-Communicable Diseases including Mental Health, the face of preventive urban health services needs to get transformed.

Urban Health and Tamil Nadu Public Health Services

The Public Health Department, formerly called the Sanitation department, was started way back in 1923 with an objective of controlling communicable diseases, specifically cholera and smallpox by provision of improved sanitation and vaccination respectively. Off late from the 1970s, Maternal and Child Health services, especially Family Welfare programmes has gained greater importance leading to a greater improvement in MCH indicators. In the last two decades, the burden due to non-Communicable disease like cardiovascular diseases, mental disorders, etc., as evident from Global Disease Burden⁷ study by ICMR, has put more stress on the OOPE by the public. It has been observed that urban areas have a higher communicable disease incidence, malnutrition, lower immunization coverage threat than rural areas, due to high population density, overcrowding and pollution.8-11. The incidence of Dengue, Malaria and Chickungunya are higher in Urban and peri urban areas when compared to rural areas. Presently, keeping in line with the Sustainable Development Goal Indicators, the three major service areas of the public health department include Communicable disease control, Maternal and Child Health services including immunization & Family Welfare, Non-Communicable disease control including mental health.

The public health services are delivered in urban areas through the Urban Primary Health Centres with support of the concerned urban local bodies. The UPHCs were established as per recommendations of Technical Resource Group on implementing National Urban Health Mission (NUHM). In Tamil Nadu, there are 400 Urban Primary Health centres in 84 cities and towns including Chennai corporation. Each UPHC will be served by Urban Health Nurse for a sector of 10,000 population. In addition, basic lab services and pharmacy services are available in the PHC. Unlike their rural counterpart there is no concept of subcenter in urban area as that of the rural PHCs and all UHN operate from their PHCs.

The provision of health services like immunization to vaccine preventable diseases, improving anemic status of AN mothers, early screening of newborn and children by school health program, delivery of drugs and follow up for NCDs hypertension, diabetes are few key activities at the level of community by the field health workers of PHC. The successful service delivery to the public when it functions in tandem with needs voiced through elected representatives of local self-governments was witnessed during massive drive of covid vaccination. Urban areas are characterized with vector and air borne outbreaks more frequently than rural areas disrupting the Maternal Childcare and Non-Communicable Disease prevention services.

However, the importance of preventive services for NCD and MCH are not adequately sensitized to local body administrators as that of water and sanitation. Hence, in the current context there is a need to strengthen the primary care service delivery of Maternal and Child Health and Non-Communicable Disease intervention components of the urban health system by focusing on convergence of Public Health cadre and the urban local bodies and strengthening it with adequate human resources and financial aid.

Problem Statement

The National Family health survey 2, 3 and 4 states that the key health indicators are poor in urban poor when compared to urban non poor, overall urban, and rural.³ Tamil Nadu with more than half of its population in Urban needs improved service delivery in Urban area with focus on Urban poor.

SWOT Analysis of Urban Health in Tamil Nadu Strength:

• Coexistence of Urban Local body with Public Health department under single umbrella with huge resources in terms of manpower, and resources.

- Statutory powers of officials flowing from both Tamil Nadu Municipalities act and the Tamil Nadu Public Health Act 1939.
- Supervision of essential services like water supply, sewerage, sanitation under single authority which play a pivotal role in Communicable diseases control
- Vibrant elected representatives that will bring the health needs to immediate attention
- Higher literacy rate than rural counterparts
- Better availability of support from NGOs and CSR activities in urban areas towards social sectors especially health.
- Health expenditure incurred by urban local bodies either from local funds or various Government of India funds especially mandatory devolution to Urban local bodies by Central Finance Commission.

Weakness:

- The civil infrastructure for the UPHCs is the weakest link. 25% of urban PHCs in TN doesn't have own building whereas it is 2% in rural areas.
- The Urban public health workforce are supposed to cater twice the population than rural counterparts as per Indian Population Health Standards which is which need to be relooked. Even the proportion of vacancies are higher in urban public health cadre than the rural areas.(13)
- Less importance to primary care services compared to secondary and tertiary care services. This is primarily due to the availability of huge government medical college hospitals, Headquarters hospitals more private health institutions in cities that focuses only in the secondary and tertiary care services with weak linkage to preventive care. The health in urban areas becomes synonymous with services of bigger institutions.
- The governance structure of Urban Health system itself more chaotic with multiple boundaries for multiple service providers. Within local bodies the water supply, sanitation, public health services under different wings have overlapping geographical boundaries with different authorities and coordination is more difficult.
- Non-separation of roles and responsibilities in preventive health and sanitation in the mandate of local bodies. Public health is specifically pointed towards Communicable diseases control like water and vector borne diseases and the emerging public health problems like NCDs, Mental health disorders needs to get sensitized in their minds.
- The equivalent of Male Health Worker in urban is Sanitary Inspector who is more preoccupied with conservancy management and has limited knowledge on emerging non

communicable diseases

Opportunities:

- Constitutional mandate of every local body to take care of their community public health.
- Decreased incidence of Water Borne diseases due to improved water supply and sanitation facilities so that the focus could be shifted to the other emerging public health challenges
- Easy accessibility of secondary and tertiary care institutions
- Choice and availability of Human Resources for Health of all Medical and Paramedical staff

Threats:

- High burden due to nature of rapid spread of any air borne and vector borne communicable diseases in urban setup
- Risk factors and disease conditions due to Pollutions, plastic, and biohazards
- Increased incidence and prevalence of Non-Communicable Diseases compared to rural areas.

Recommendations with respect to Urban Primary Health System in Tamil Nadu:

The evolution of NUHM framework and the implementation of their recommendations have started transforming the availability of health human resources and the infrastructure in urban areas. The polyclinic services of specialists in select centres with quality are attracting more people to urban PHCs. However, many issues remain to be unresolved in infrastructure, human resources, and governance. The recommendations are taken from the field level officers, administrators and from the recommendations of NUHM to Government for revamping urban health delivery system.

1. Leadership / Governance

- a. Supervisory cadre at UPHC levels: Sector Health Nurse and health Inspector for all UPHCs should be sanctioned and posted for supervision
- b. Zonal level Public Health Unit: Every 2.5 lakh population should have a public health Unit comprising Zonal Medical Officer, Community Health Nurse, and equivalent Zonal Health Supervisor.
- c. Corporation level supervisory officers: Corporations with more than 10 lakhs population may be sanctioned with a technical cadre like Maternal and Child Health Officer (MCHO) / Assistant Program Manager / Corporation Training Team Medical Officers. In the corporations and

municipalities with less than 5 lakhs population, second level officers in the district may be instructed to concentrate on the supportive supervision aspect of urban local bodies.

d. Revision of Job responsibilities of City Health Officer / Municipal Health Officer: As per G.O.Ms.No.241 Municipal Administration and Water Supply Department dated 01/10/1996, responsibilities of conservancy and Solid Waste Management are vested with the Engineering section of the Corporation. The City Health Officer is required to provide technical assistance only. But in all corporations, conservancy management is still monitored and supervised by the CHO / Health section. In the current context of competing public health priorities in the MCH & NCD domains this responsibility should be divested from Public Health wing, in the Municipal corporations. City Health Officers & Multi- Purpose Health Workers - Male category i.e., Sanitary Inspectors and Sanitary Officers should exclusively look after public health work related to disease control. The conservancy management should be taken out from the purview of Sanitary inspectors and Sanitary Officers.

e. Government Level: A high level committee with officers from Municipal administration department and Health department should be constituted and meet periodically to monitor and sort out the policy level issues in Governance, service delivery and resource management.

2. Service Delivery

- a. All Sectors should be distinctively mapped to street level households. A head count survey like rural areas with updated family folders should be made out for planning of service delivery in all programs.
- b. Every sector should have an own building of Wellness centres, preferably near the slum areas for stationing of Urban Health Nurse and Health inspector for service delivery.
- c. The service area of the sector should be aligned with the ward boundaries of the town / cities so that the interests of the people representatives and health needs of the community can be converged.
- d. UPHC timings: With majority of the population residing in the urban areas belonging to the working class, the availability of Medical Officers may be extended in the evening and morning. The erstwhile 'Urban Dispensary' kind of setup with OP functioning with a Medical Officer from 5 PM to 8PM and 7 AM to 11 AM may be institutionalized.
- e. Specialist availability: Urban health topography in Tamil Nadu is full of private specialists. A welfare state producing an appreciable number of Post Graduate doctors every year can position specialists in the field of Obstetrics, Anesthesia

and Pediatrics at least in Community Health Centers. In an alternative way, with majority district headquarters with Medical College hospitals, II year or final year Postgraduates can be posted in CHCs for provision of specialist services.

f. Integrated Health and Wellness approach: Many urban local bodies have dispensaries in siddha, homeopathy, yoga, and naturopathy at various locations. Hence, one CHC with adequate space may be identified may be redesignated as 'Integrated Health and Wellness Center' to cater the demands of people in primary care.

g. Special areas like gated communities, apartments: Maternal and Child health service delivery including immunization to be carried out in specific areas like apartments, gated communities and multi storied residential buildings are difficult. Certain specific clauses with respect to MCH & NCD may be added in the Tamil Nadu Public Health Act, 1939 to enable service delivery.

3. Health Workforce

a. Additional Medical Officer in UPHC: Two Medical Officers should be posted in all the Urban PHCs. In Community Health Centers five Medical Officers should be posted, preferably with Obstetrician, anesthetist, and pediatrician. Multi-Purpose Health Worker – Male: As per Indian Public Health standards, Male MPHW in the cadre of Sanitary Inspector / Health Inspector to be posted.

b. Paramedical Staff: The gap analysis should be done periodically, and the vacancies must be filled up. Existing vacancies created due to retirement / death / promotion of local body appointed Urban Health Nurses to be filled at the earliest. Vacancies existing in certain categories like Lab Technicians, Pharmacists should be addressed.

- c. Entomologist: Junior Entomologist cadre in corporations below 5 lakhs population and Senior Entomologist cadre in corporations above 5 lakhs population should be appointed to tackle the perennial burden of communicable diseases, specifically vector borne diseases.
- d. Microbiologist: The city public health lab with microbiologist may be posted in all corporations with 5 lakhs plus and one senior microbiologist may be posted in all corporations with 10 lakhs plus population.

CONCLUSION

Strengthening of public health cadre as per Indian Public Health Standards, creating and strengthening wellness center in every sector, streamlining the governance structure from PHC to Government level and focused community driven approach are the few critical areas that must be addressed

in short and medium term to overcome the public health challenges in the urban areas.

REFERENCES

- 1. World Bank. Proportion of Urban Population India [Internet]. [cited 2022 Nov 28]. Available from: https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=IN
- 2. State Planning Commission. 12th Five Year Plan Tamil Nadu Urbanisation [Internet]. 2012 [cited 2022 Nov 21]. Available from: https://www.spc.tn.gov.in/fiveyearplans/12plan_e.htm
- 3. Urban Poor Urban Non Poor Overall Urban Overall Rural All-India Urban Poor NFHS-2 [Internet]. 2015 [cited 2022 Nov 21]. Available from: http://uhrc.in/downloads/Factsheet-India.pdf
- 4. Rural health Statistics 20 21. [cited 2022 Nov 28]; Available from: https://hmis.nhp.gov.in/downloadfile?filepath=publica tions/Rural-Health-Statistics/RHS%202020-21.pdf
- 5. Mishra A. RSSPAPPEBA and SP. Health Care Equity in Urban India. 2021.
- 6. Ganesan P, Nambiar D, Sundararaman T. Who's in charge of social determinants of health? Understanding the office of the municipal health officer in Urban areas. In: The Social Determinants of Health in India: Concepts, Processes, and Indicators. Springer Singapore; 2017. p. 103–15.
- 7. Forouzanfar MH, Alexander L, Bachman VF, Biryukov S, Brauer M, Casey D, et al. Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: A systematic analysis for the

Global Burden of Disease Study 2013. The Lancet. 2015 Dec 5;386(10010):2287–323.

- 8. Murarkar S, Gothankar J, Doke P, Pore P, Lalwani S, Dhumale G, et al. Prevalence and determinants of undernutrition among under-five children residing in urban slums and rural area, Maharashtra, India: a community-based cross-sectional study. BMC Public Health. 2020 Dec 1;20(1).
- 9. Crocker-Buque T, Mindra G, Duncan R, Mounier-Jack S. Immunization, urbanization and slums A systematic review of factors and interventions. BMC Public Health. 2017 Jun 8;17(1).
- 10. Fink G, Günther I, Hill K. Slum Residence and Child Health in Developing Countries. Demography. 2014;51(4):1175–97.
- 11. Pörtner CC, Su Y hsuan. Differences in Child Health Across Rural, Urban, and Slum Areas: Evidence From India. Demography [Internet]. 2018 Feb 1 [cited 2022 Nov 28];55(1):223–47. Available from: https://pubmed.ncbi.nlm. nih.gov/29192387/
- 12.B Report and Recommendations Of Technical Resource Group For National Urban Health Mission Final Report [Internet]. 2014 [cited 2022 Nov 21]. Available from: https://nhsrcindia.org/sites/default/files/2021-03/Report%20 Recommendations%20of%20TRG%20for%20NUHM.pdf
- 13. Human Resources for Health in District Public Health Systems of India: State-wise Report 2020 [Internet]. 2020 [cited 2022 Nov 21]. Available from: https://nhsrcindia.org/sites/default/files/2021-06/All%20State%20Infographic__INNER_0.pdf