

CITY HEALTH PLAN FOR JAIPUR

(Draft)

May 2013

VOLUME -I

Submitted To:

Health for Urban Poor (HUP)

Population Foundation of India

Submitted By: Urban Management Centre (UMC)



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Urban Management Centre (UMC) is a not-for-profit organization which, in collaboration with International City/County Management Association (ICMA), works towards professionalizing urban management in India. UMC provides technical assistance and support to urban local governments and local government associations and implements programs that bring improvement in cities.

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List of Acronyms

ANM Auxiliary Nurse Midwife

ASHA Accredited Social Health Activist

AWH Anganwadi Helper AWW Anganwadi Worker

BSUP Basic Services to the Urban Poor
BWSP Bisalpur-Jaipur Water Supply Project

CBR Crude Birth Rate

CDC Centre for Development Communication

CDP City Development Plan

CDPO Child Development Program Officer

CDR Crude Death Rate

CHC Community Health Centre

CMHO Chief medical and Health Officer

CSP City Sanitation Plan

DOT Directly Observed Treatment

DRDA District Rural Development Agencies

FWC Family Welfare Center
Gol Government of India
HUP Health of Urban Poor

ICDSIntegrated Child Development ServicesICTCIntegrated Counseling and Testing CenterIDSPIntegrated Disease Surveillance ProgramIECInformation Education and Communication

IHFW Integrated Health and Family Welfare
IIHS Indian Institute of Human Settlements

IMR Infant Mortality Rate

JDA Jaipur Development Authority
JMC Jaipur Municipal Corporation

JnNURM Jawaharlal Nehru National Urban Renewal Mission

MAS Mahila Arogya Samiti MMR Maternal Mortality Rate

MO Medical Officer

MoUD Ministry of Urban Development

NIUA National Institute if Urban Affairs

NLEP National Leprosy Eradication Program

NRHM National Rural Health Mission

NSWAI National Solid Waste Association of India

NUHM National Urban Health Mission
NUSP National Urban Sanitation Policy

NVBDCP National Vector Borne Disease Control Program

OPD Out Patient Department

PCPNDT Pre Natal Diagnostic Techniques
PFI Population Foundation of India

PHC Primary Health Center

PHED Public Health Engineering Department

RAY Rajiv Awas Yogina

RHSDP Rajasthan Health System Development Project
RNTCP Revised National Tuberculosis Control Program

RUIDP Rajasthan Urban Infrastructure Development Project

SLB Service Level Benchmark
STP Sewage Treatment Plant
SWM Solid Waste Management

UCD Urban Community Development
UMC Urban Management Centre
UNICEF United Nation's Children Fund

UPHC/UHC Urban Public Health Centre / Urban Health Centre
USAID United States Agency for International Development

USHA Urban Social Health Activist
WCD Women and Child Development
WHO World Health Organization
WTP Water Treatment Plan

1. About this study

1.1. Background

India like the rest of the developing world is urbanizing. Towns and cities are seeing rapid expansions as increasing numbers of people are migrating to urban areas in search of economic opportunity. As per census 2011, Urban population in India amounts to 37.7 Crore exhibiting a rise of 31% over the last decade. This rapid growth in urban population has outpaced the provision of affordable housing and environmental and health infrastructure. The shortfall in urban housing has led to proliferation of slums and squatter settlements in Indian cities. Crowded living conditions, unhygienic surroundings and lack of basic amenities such as garbage disposal facilities, water and sanitation characterize slums in India. The near total absence of civic amenities coupled with lack of primary health care services in most urban poor settlements has an adverse impact on the health status of its residents.

It is understood that the health of the urban poor is significantly worse than the rest of the urban population and is often comparable to the health conditions in rural areas. The 10th Five Year Plan (2002-2007) observed that unlike the rural health services there have been little efforts to provide well planned primary, secondary and tertiary care services in geographically delineated urban areas. It is observed that the primary health care facilities have not grown in proportion to the explosive growth of population. Ineffective outreach and weak referral systems also limit the access of urban poor to health care services.

The 12th five year plan of Government of India seeks to pay systematic attention to urbanization and spearhead the process of inclusive infrastructure development in cities. As part of the plan the government has launched the National Urban Health Mission (NUHM) to address the health concerns of the urban poor through facilitating equitable access to strengthening of the existing capacity of health delivery for improving the health status of the urban poor (Ministry of Health ad Family Welfare, 2008).

The United States Agency for International Development (USAID) funded Health of the Urban Poor (HUP) Project-(2009-13) is providing technical assistance to the Ministry of Health and Family Welfare for effective implementation of the NUHM. The project envisages the development of a responsive, functional and sustainable urban health system that provides need-based, affordable and accessible quality healthcare and improved sanitation and hygiene for the urban poor. To access funds under NUHM, each city would be required to develop a City Health plan based on the assessment of local needs. The Ministry of Health and Family Welfare has requested the HUP team to prepare model city health plans, for three cities in the country-Pune, Jaipur and Bhubaneswar. The Urban Management Centre (UMC) has been commissioned to evolve a methodology and prepare City Health Plans for these three cities in 2012-13. UMC has a strong expertise in working with city governments and other parastatal organizations towards data collection, analysis and performance improvement planning in all sectors of urban management including urban health management. UMC has previously prepared detailed project report for Ahmedabad Municipal Corporation (AMC) under the National Urban Health Mission in year 2008-10. UMC has also assisted the AMC in the mapping of slums, health facilities and health data including morbidity and preventive care on a Geographical Information System (GIS) platform. The methodology for the city health plan was developed by UMC in consultation with PFI and HUP teams. UMC also involved local NGOs to assist with data collection and situational analysis.

The findings and recommendations of the Study are presented in three volumes.

Volume I is the City Health Plan Document, Volume II presents a detailed facility assessment of all Government Health Facilities in Jaipur and Volume III is a comparative analysis of governance structures in health.

1.2. Methodology

The following methodology was adopted to prepare the Urban Health Plan of Jaipur:

1.2.1. Slum listing and mapping

The list of slums from different sources like Jaipur Municipal Corporation (JMC), Bharucha charitable trust, Mahila Housing Sewa Trust and slum list from SHRISTHI used for Rajiv Awas Yogina (RAY) were acquired. The list acquired from JMC was then finalized to be used further as the most authentic source. A list of slums on Jaipur Development Authority (JDA) land was acquired. This list consisted of slums within JMC limits but is on JDA land. These slums are not included in the list of JMC slums. The slums list from Bharucha charitable trust (who also forms the city team of HUP program) was the only list of slums which had spatial reference in form of 'Urban Health Map of Jaipur' in auto-CAD format. The list from JMC and JDA was verified with this spatial data. The slums not in the JMC or JDA list is then indicated as HUP identified slums. Details of slum population were taken from RAY list as it had the latest available data (2009). The location of the slums was verified on field on sample basis distributed spatially.

The ward map of JMC available on JMC website was taken as the base for JMC jurisdiction boundary and administrative ward boundaries. With the reference of the Urban Health Map – Jaipur and satellite imagery from Google Earth, all different layers of information such as roads, ward boundaries, slums, anganwadi centers and health facilities were mapped in CAD and then transferred to a GIS platform. Key attributes about slums and wards were also entered in GIS which helped create thematic maps for the city based on health indicators and use the data for spatial analysis.

1.2.2. Situational analysis

The following activities were carried out to assess the urban health situation in Jaipur:

Review of health indicators and morbidity data

Latest available morbidity data from various sources was compiled and reviewed. There was little primary health data available from JMC and the Rajasthan Health and Family Welfare (H&FW) Department. Hence secondary sources such as the Annual Health Survey (2010-2011) and the Baseline Survey for Jaipur (2011) conducted by IIPS HUP team were reviewed to create the morbidity profile for Jaipur. Health Indicators for the city including birth and death rate, IMR and MMR were provided by Jaipur Municipal Corporation (JMC). In addition news articles citing evidence of disease incidence in the city were tracked and reviewed.

Assessment of Wat-San in slums

UMC team visited sample slums in different geographical areas in Jaipur to document and assess the environmental conditions and access to water and sanitation. The on site assessment was supported by review of relevant documents including the Water-Sanitation SLB indicators, City Development Plan, Sanitation Ranking and other project reports.



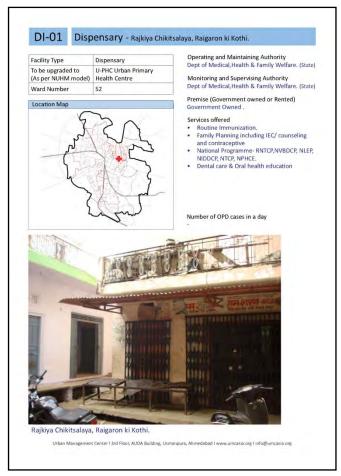
Photograph 1 Focus Group Discussion in Bassi Sitapura slum



Photograph 2 Focus Group Discussion in Kathputli Nagar Slum

Health Facility Assessment

Assessment of all government health facilities was carried out to evaluate the existing condition in terms of staffing, infrastructure and maintenance. The results from the assessment were used as inputs for designing of manpower and capacity building plan for Jaipur Health Department as well as to identify the inputs to the up gradation and improvements in the facilities. The Centre for Development Communication (CDC), Jaipur was identified as the local partner to conduct health facility assessments. UMC prepared a benchmarking tool to assess all public health facilities in the city. The tool for rapid assessment of health facilities is attached in Annexure 4. The tool captured information on availability of health infrastructure (building, equipment), catchment of patients, availability of required human resources and quality of environment and health services. A total of 56 government facilities including primary health care centers, dispensaries and hospitals were assessed. The information was analyzed to highlight key issues related to health infrastructure and gaps.



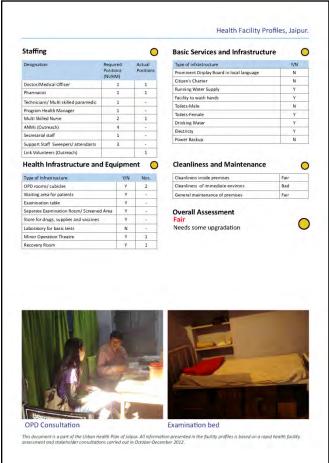


Figure 1 Sample Health Facility Sheet, Jaipur

Stakeholder consultation

Key issues and needs in health care delivery in Jaipur were identified in a consultative manner with concerned department staff from health and sanitation sector. Individual and group consultations were carried out with various stakeholders in urban health, Integrated Child Development Services (ICDS) staff, and staff in wat-san services. The SWOT tool was used to facilitate discussions among stakeholders and to identify prioritized areas for preparation of the essential health package.





Photograph 1 Stakeholder Consultations

The following stakeholders were personally interviewed and consulted for preparing the health plan:

Jaipur Municipal Corporation

Dr Garg	Health officer, Public Health Department, JMC
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Public Health and Engineering Department (PHED), Government of Rajasthan

Mr Mahecha	Executive Engineer, PHED	
------------	--------------------------	--

Health and Family Welfare Department, Government of Rajasthan

Dr. O.P. Thakkan	CMHO-I
Dr. Ravi Prakash Sharma	CMHO-II
Dr. Romil Singh	RCHO- Urban
Dr. Narottam Singh	RCHO- Urban
Dr. O.P. Thakkan	CMHO-I

Women & Child Development Department, Government of Rajasthan

Mr. V.P. Singh, RAS	Dy. Director WCD
Ms. Asha Maan	Child Development Program Officer(ICDS-3)

In addition group meetings were conducted with different set of stakeholders to identify key issues pertaining to health in Jaipur and develop an essential health package for the city. The list of participants in the consultation is attached as annexure 2.

1.2.3. Development of essential health package and associated multiyear budget

Finalizing the key health sector needs of the city was undertaken in a consultative manner with concerned Health Department and ICDS staff. UMC presented the current statistics and situation analysis based on previous data collection and facilitated discussions among stakeholders and to identify prioritized areas for preparation of the city health plan. The priorities identified were used to strategize interventions and programs for bridging the gap. The District NRHM PIP guidelines were use to prepare the multiyear budget template for the city. In addition to the budget for the city health plan recommendations on institutional structures, data management systems and convergence mechanisms were also discussed with the concerned officers and included as part of the plan.

2. Urban Health-National Framework

2.1. The National Urban Health Mission (NUHM)

Urban health is a thrust area for Government of India's 12thFive Year Plan (2012-2017). As part of the plan the government has launched the National Urban Health Mission (NUHM) to address the health concerns of the urban poor living in slums through facilitating equitable access to quality health care through a revamped public health system in urban areas. Rs 22,507-crore was recently approved for NUHM by the Union Cabinet (The Hindu, 2013). The health mission will soon be launched in 779 cities and towns in India with a population of 50,000 or more.

2.1.1. Proposed Health Care Delivery Model under NUHM

The proposed national urban health service delivery model intends to rationalize and strengthen the existing public health care system in urban areas, promote effective engagement with the non-governmental sector and strengthen the community participation in planning and management of health care service delivery. Urban Health Centre (UHC) providing primary health care services is central to the proposed health care delivery model. One UHC will cater to a slum population of 25-30,000 and will have outreach and referral linkages as illustrated in the diagram below.

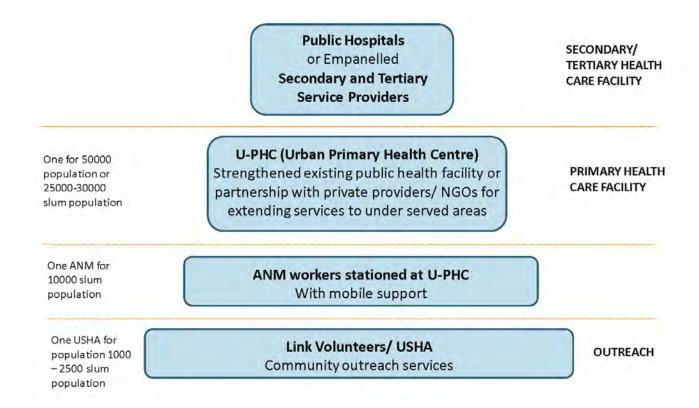


Figure 2 Proposed Urban Health Care Delivery System as per NUHM

2.1.2. Health Care Delivery in Urban Areas: Existing Systems

The NUHM framework document points out the diversities in organization and management of health care services in urban areas across India. In bigger cities such as Mumbai, Pune, Ahmedabad, Chennai etc. with strong local governance, ULBs are responsible for the management of health care services. However in most other Indian cities like Agra, Jaipur, Indore etc. the provision of primary health services still vests with the State Government through its district structures. In these states where health care services are planned and managed only by the State government, the involvement of the urban local bodies is observed to be limited. There are also a few cities where the ULBs and State Governments are both providing health care in urban areas the management of which may or may not be coordinated. This issue of multiplicity of agencies is unique to urban areas and needs to be carefully addressed while selecting the appropriate health care delivery model for a city.

Some basic women and child related health services such as pre natal checkups, immunizations and nutrition are also being provided at anganwadi centers that were established in 1975 as part of the Integrated Child Development Services program to combat child hunger and malnutrition. The anganwadi centers come under the aegis of the Women and Child Development (WCD) department while the state health and family welfare department oversees health care facilities and programs. Though an integral part of the public health-care system in rural areas, the linkage between health services and Aanganwadi Centres in urban areas is observed to be relatively week. NGOs and charity organizations currently act as crucial links in urban areas in facilitating the convergence of health care services and the ICDS program.

2.1.3. Recommended Strategies for Urban Health Care Delivery

Acknowledging the diversity of the available facilities in the cities, NUHM offers flexibility to cities to choose a model for health care delivery that best suits the needs and capacities of the states and the ULBs. The following key strategies regarding institutional structuring are suggested to operationalize urban health mission in cities:

- In addition to the central and state missions, cities may either decide to constitute Separate City Urban Health Societies or use the existing structure of the District Health Society under NRHM with additional stakeholder members.
- Public health care system in cities can be strengthened through revamping the existing health care system, partnerships with NGOS or through public private partnerships (PPP).
- All existing primary health facilities such as government dispensaries, Family Welfare Centers (established by GOI under the first five year plan), Urban Health Posts (centrally funded program established on the recommendation Krishnan Committee in 1983) to be strengthened and upgraded into a "Primary Urban Health Centre" with outreach and referral facilities.
- Foster convergence across departments at the ULB level(Slum improvement, JNNURM, RAY) and state level(ICDS program of the women and child development department)

2.2. Link between Urban Health and Sanitation

Environmental sanitation includes safe management of human excreta, its safe confinement treatment, disposal and associated hygiene-related practices such as solid waste management and the management of drinking water supply (MoUD, 2008). For a long time, sanitation in India has been accorded low priority and there is poor awareness about its inherent link with public health. According to the National Urban /sanitation Policy (NUSP), inadequate discharge of untreated domestic/municipal wastewater has resulted in contamination of 75 per cent of all surface water across India (MoUD, 2008) leading to rampant spread of water and vector borne diseases in urban areas. The loss due to diseases caused by poor sanitation for children under 14 years alone in urban areas amounts to Rs.500 Crore at 2001 prices (Planning Commission-UNICEF, 2006) (MoUD, 2008). NUHM acknowledges the impact of poor sanitation on human health, especially among the urban poor. Strengthening promotive action for improved health and prevention of diseases is a major focus of the health mission. NUHM recommends key partnerships and linkages with urban local bodies and other national and state institutions for improved water and environmental sanitation and other aspects having a bearing on health.

The Ministry of Urban Development (MoUD) is the nodal agency responsible for formulating national level policies on urban water supply and sanitation. The Ministry's strategic plan (2011-2016) calls for cross departmental synergies with the Ministry of Health and Family Welfare and the Ministry of Housing and Poverty Alleviation to address urban sanitation and hygiene. The following initiatives of MoUD facilitate creation of basic urban infrastructure relating to water supply sanitation and promote healthier cities:

2.2.1. Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

Recognizing the process of rapid urbanization in India and the urgent need to invest in urban infrastructure and improve the quality of life in cities the MoUD launched the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) in 2005. JNNURM is a city-based program through which financial assistance is made available to ULBs and parastatal agencies for implementing urban infrastructure projects n infrastructure projects relating to water supply, sewerage, solid waste management, road network, urban transport etc. There is JNNURM Sub-Mission for Basic Services to the Urban Poor (BSUP) which is administered by the Ministry of Urban Employment. The main thrust of the Sub-Mission is to encourage integrated development of slums through projects for providing shelter, basic services and other related civic amenities.

2.2.2. National Urban Sanitation Policy

The Government of India launched its National Urban Sanitation Policy (NUSP) in November 2008 with the goal of making India "community-driven, totally sanitized, healthy and livable cities and towns". The policy advocates that all cities should become open defecation free, all human wastes and liquid wastes be collected and safely treated and adequate resources be available for the operation and maintenance of the sanitation facilities. As per NUSP guidelines, cities need to prepare City Sanitation Plans (CSPs) that encompass plan of action for achieving 100% sanitation in the city through demand generation and awareness campaign, sustainable technology selection, construction and maintenance of sanitary infrastructure and clarifying institutional roles and responsibilities.

2.2.3. Service Level Benchmarking

The Service Level Benchmarking (SLB) initiative by MoUD seeks to identify a minimum set of standard performance parameters for water and sanitation sector that are commonly understood and used by all stakeholders across the country. The SLB effort will define a common minimum framework for monitoring and reporting on these indicators across cities and will also set out guidelines on operationalising this framework in a phased manner (MoUD, GOI, 2010).

2.2.4. Sanitation Ranking of Cities

The national rating for cities by MOUD was launched to achieve the goals of the NUSP. The exercise involved rating cities with a population of 1 lakh or more on various aspects of sanitation. The first national rating was carried out in 2009 across 429 cities in India. The rating scores cities on a scale of 100. Once the scores are calculated, cities are categorized into four color categories- red, black, blue or green. A city that receives less than 33 points is marked as a 'Red City' which needs to pay immediate attention to its sanitation situation and undertake remedial actions.

Table 2 Rating of cities by SLB indicators

Category	Description	Points
RED	Cities requires immediate remedial action	<33
BLACK	Needing considerable improvement	<34 ≤ 66
BLUE	Recovering but still diseased	<67 ≤ 90
GREEN	Healthy and clean city	<91 ≤ 100

Source: Mo UD

The rating was a useful exercise which allowed various cities to compare their water supply and sanitation situation with other cities in India. The exercise also attempted to instill healthy competition in cities and recognize excellent performance in sanitation through national awards. The rating exercise is proposed to be carried out every two years to track performance.

3. The City of Jaipur

3.1. Introduction

Jaipur city was established in 1727 AD by Maharaja Sawai Jai Singh II when he decided to move his capital to the current location of Jaipur old city from its former location in Amer. The location is along the sides of Aravalli Hills. It is known to be one of the first planned cities of India. The Jaipur city profile is indicated in the following table.

Table 3 Jaipur city profile

City Profile	
Total Population	3,073,350
(Provisional Population figures 2011 census)	3,073,330
Area of Municipal Corporation (sq. km)	467
Density (People per sq. km)	6581
Slum Population (JMC + JDA slums)(2009)	402920
Number of slums (JMC + JDA slums) (2009)	236
Percentage of slum Population (JMC + JDA slums)	13.1%

The walled city exists even today and boasts of marvelous architectural monuments like Hawa Mahal, city palace, Jantar Mantar etc. Amer, which adjoins the old city of Jaipur has the Amer fort and palace, Jaigarh fort, Jal Mahal and Nahargarh fort etc all of which are a part of the modern day Jaipur. During British Raj Jaipur became capital of the princely state of Jaipur. In 1876 AD the whole city was painted pink to welcome Edward, Prince of Wales. During the 19th and 20th century, the city grew beyond the walled limits. The municipality was reorganized in 1926 and a new municipal act was prepared in 1929.Post independence, planned development of the city was taken up after the city became the capital of the State of Rajasthan (City Development Plan, 2006).

In past few decades Jaipur has developed along the transport corridor leading to the other cities in the state and the country. Jaipur is well-known tourist destination popular for historical monuments and handicrafts industries which play key role in developing city's economy.

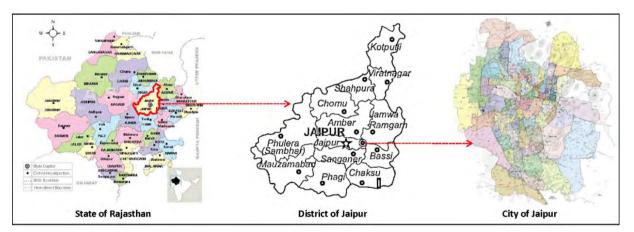


Figure 3 Geographical context of Jaipur

Jaipur has a semi-arid climate with hot summer and cold winters. Annual rainfall in the city is low of about 563.8 mm Thus it is a water scarce city. Jaipur faces drought on an average of once in every five year due to irregular rainfall.

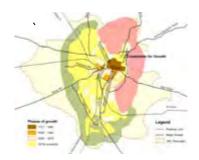
3.2. Population Growth and Urbanization Pattern

The development of railway line in 1868 A.D pushed the city's limit first time out of the wall. Large scale during migration resulted in development of residential colonies in the south side of the city. Jhotwara industrial estate in north-west side also play significant role in development of city during the 60's and 70s. Construction of national highways in 1970 made major impact on the city form. Since then development has taken place along major transportation corridors.

Table 4 Population Growth in Jaipur

Year	Population	Decadal Growth Rate (%)	Area (sqkm)	Density (per sq km)
1971	637000	•	1	1
1981	1010000	24.57	200	5050
1991	1518000	33.46	218.3	5958
2001	2323000	53.03	288.4	8054
2011	3073350	32.30	467	6581
Source: Census of India				

Figure 4 Direction of Growth of Jaipur



(City Development Plan, 2006)

In 1991 the area of city increased up to 218sqkm due to the addition of Sangner in the south and also the Amber Tehsil. In 2001 Bagru, Bassi and Chormu Tehsils were also included in JMC which increased the area to 288 sqkm. The population grew from 1.52 million to 2.32 million in 1991 primarily due migration from other parts of state and nation. The Residential cooperative societies come up between Delhi railway line and Amanishah Nalah on the west side. Same kind of residential development happened between Gopalpura bypass and Jhotwara Industrial Area towards the north direction.

According to 2011 census, Jaipur is the 10th most populous city of India. Jaipur is the only city in Rajasthan with a population above 10 lakh. It comprises of 18% of Rajasthan's total urban population. Jaipur's population is three times the population of the next most populous city of Rajasthan i.e. Jodhpur. Thus Jaipur is the primate city of the state. 52.51% of Jaipur district's population lives in urban areas mostly in and around the city of Jaipur. This high rate of urbanization can be attributed to the availability of employment opportunities because of tourism, trade, economy and proximity to Delhi. The population in the walled city has decreased even though the overall population of the city has increased. The poor state of habitation, lack of amenities and infrastructure etc in the walled city has forced the people to migrate out in other parts of the city. Maximum slums in Jaipur are located in the walled city (Jaipur and Amer) and along the NH8 bypass road. Most of these slums are at the foot of Aravalli Hills.

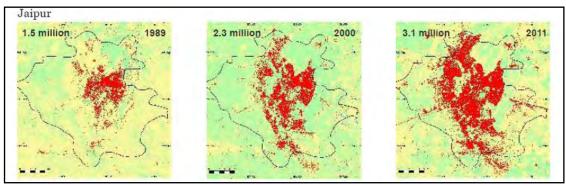


Figure 5 Growth trend of Jaipur(IIHS, 2011)

3.3. Urban Local Governance

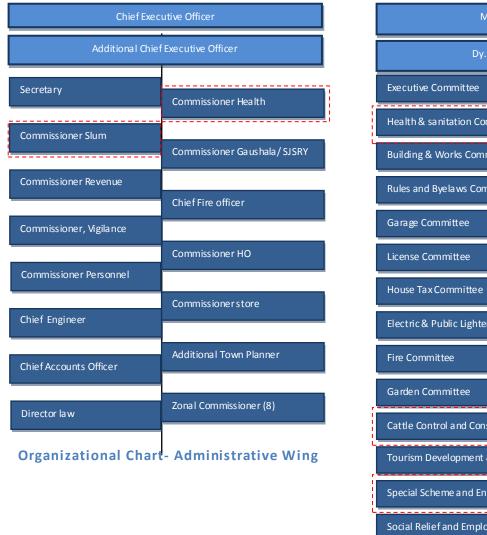
Local Government came into existence in Jaipur as a Nagar Committee in 1869. The committee was converted to a Municipal Board in 1938, to a Municipal Council in 1944 and finally in 1992 it gained the status of a Municipal Corporation. The main functions of the Corporation are: Sanitation and solid waste management, provision and maintenance of street lights, development of city infrastructure, community development projects, slum improvement schemes, physical environment improvement projects, employment generation schemes, public health projects, maintenance of fire services, tax collection, and registration of birth and deaths etc (NIUA).

The Jaipur Municipal Corporation (JMC) functions as per the provisions of The Rajasthan Municipalities Act, 2009. The department of Local Self Government, Government of Rajasthan monitors the functioning of all ULBs including JMC. It is responsible for approval of all schemes of ULBs, regularization of land titles, preparation of plans etc.

The city of Jaipur under JMC is divided into 77 administrative as well as electoral wards. These wards are grouped into 8 zones headed by Zonal Commissioners. One councilor is democratically elected from each ward. Thus there are 77 counselors who constitute a board which runs the local government along with the city Mayor. There are 16 co-opted members of which one is the deputy mayor. The mayor is directly elected by the citizens for duration of five years. The standing committee comprise of 6 members (Jaipur Municipal Corporation, 2008).

The administrative structure is explained through the following chart.

Local Governance Administrative Structure



Organizational Chart- Elected Wing (Standing Committees)

Health & sanitation Committee Building & Works Committee Rules and Byelaws Committee Electric & Public Lightening Committee Cattle Control and Conservation Committee Tourism Development & Festival Committee Special Scheme and Environment Committee Social Relief and Employment Committee Anti-Encroachment and Vigilance Committee Slum Development Committee

The functions of Jaipur Municipal Corporations in health sector defined in the Rajasthan Municipalities Act, 2009, are indicated in the following table.

Table 5 Functions of JMC as per Municipalities act

Public Health and Welfare	The Rajasthan Municipalities Act, 2009	
	Obligatory Functions	Discretionary Functions
Public Health and Welfare		
Scavenging and cleaning of public streets and places	✓	
Collection and disposal of solid wastes and sewage	✓	
Construction and maintenance ofpublic toilets	✓	
Reclamation of unhealthy localities		✓
Registration of births and deaths	✓	
Management of Corporation water works and the construction or acquisition of new works		
Preventive Health		
Public vaccination		
Preventing the spread of infectious disease		✓
Population Control and Family Welfare	✓	
Provision of milk to expectant or nursing mothers		
Maintenance of laboratories for the examination of water, foods, or drugs for the detection of disease		✓
Curative Health		
Construction and maintenance of public health facilities such as hospitals, dispensaries and maternity homes		✓
The maintenance of an ambulance service		
Anti-rabic treatment		
Maintenance of lunatics and lepers		

The 74th Amendment Act which provides for strengthened Urban Local Bodies is partially implemented in Rajasthan with the existence of a Finance Commission, ability of municipalities/ corporations to levy approved taxes, municipal elections etc.

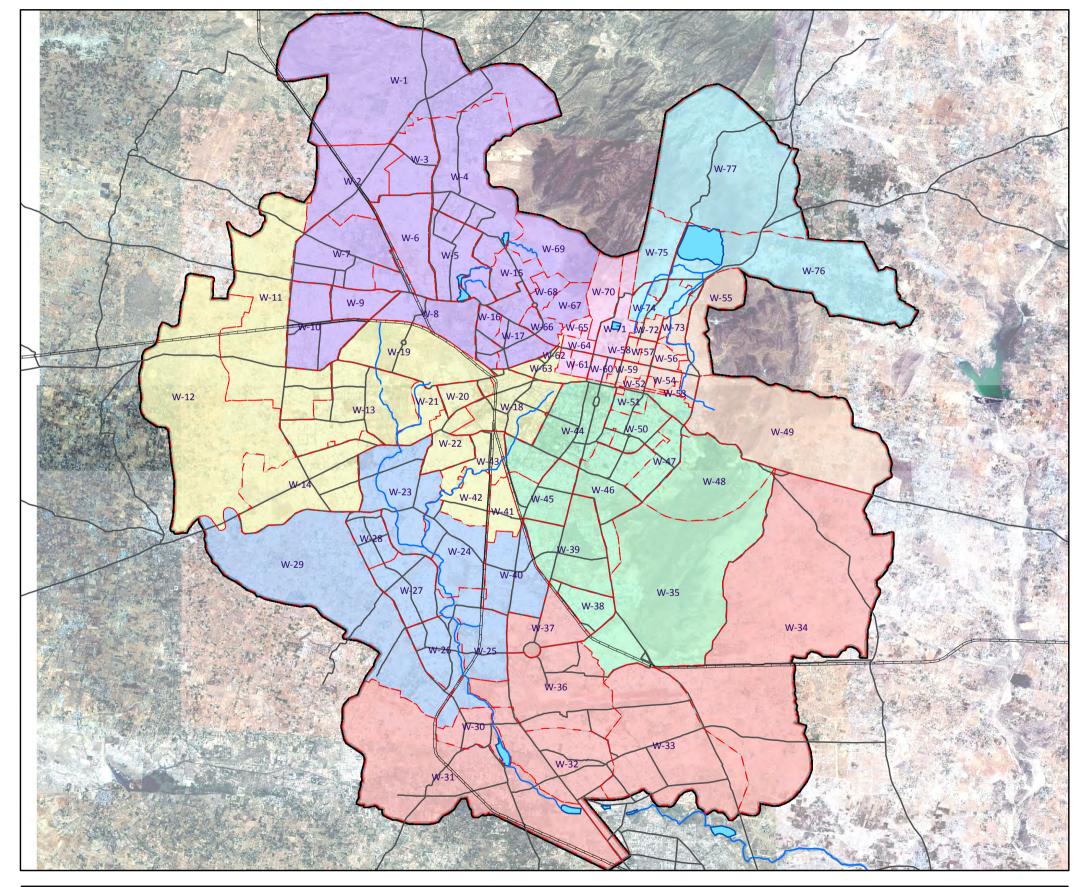
However, attention has not been paid to the required change in institutional structure and the role of municipal governance in service provision. JMC is assisted by parastatal agencies operating either at state or city level to carry out various functions including sanitation and water supply. PHED, JDA, UITs etc undertake land acquisition, water supply, development work etc which generates income. JMC is left with garbage collection/ disposal, street lighting, registration of birth and death etc which does not generate income leading to poor financial condition of JMC. The inability of JMC to levy additional taxes is also a financial constraint (Rajasthan Development Report, 2006).

Thus the JMC does not have the authority or the capacity to govern all aspects of urban health in the city. With multiple agencies in charge of health and sanitation, the link between environmental health (sewerage and drainage, water supply, solid waste management etc), preventive health (vaccination) and curative health (treatment of diseases) is relatively weak in Jaipur.













Legend **Municipal Boundary** Administrative Wards **JMC Administrative Zones** Amer Civil Lines Zone Hawa Mahal Zone(E) Hawa Mahal Zone(W) Moti Doongri Zone Sanganer Zone Vidydhar nagar Zone mansarovar zone Natural Drainage lines Water Bodies Railway Line Roads Prepared By: **Urban Management Centre, Ahmedabad** Prepared For: Health of Urban Poor (HUP)

Data Sources: Jaipur Urban Health Map, HUP Jaipur Municipal Corporation

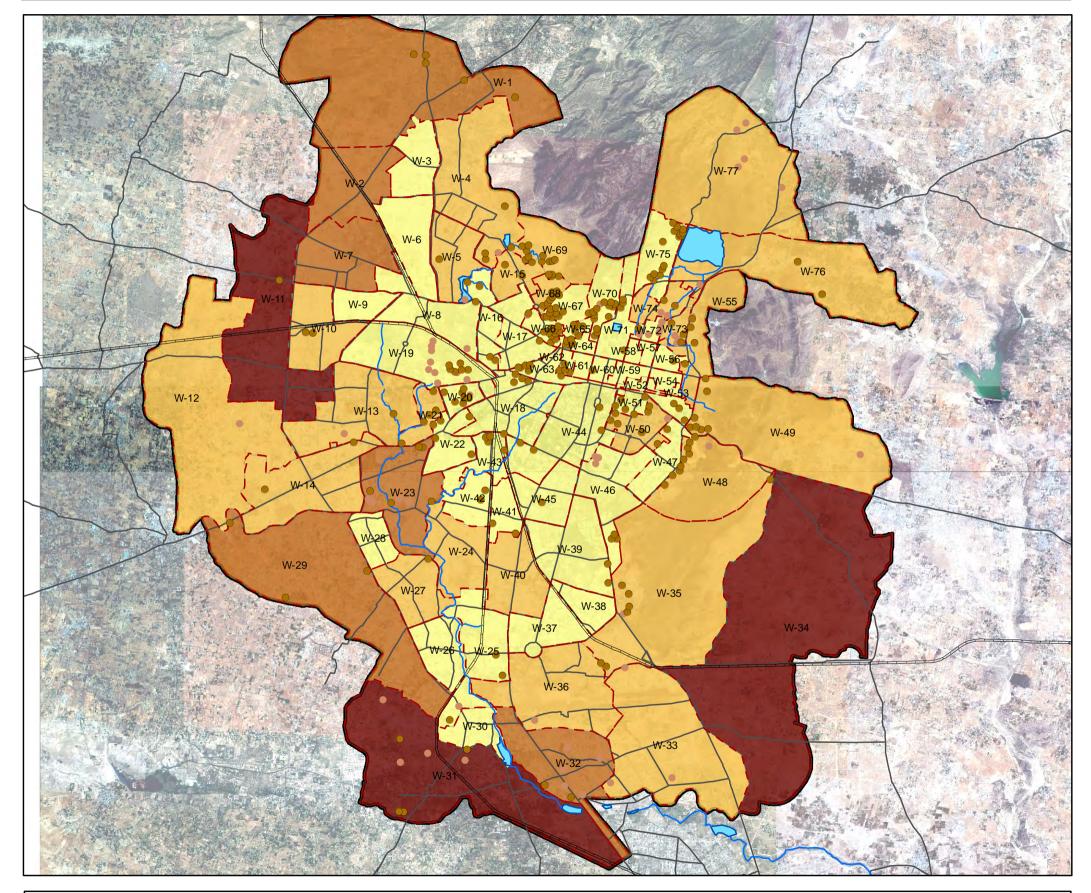
Kilometers















Legend

JMC Administrative Wards

Administrative Ward Population

20000 - 40000

40000 - 60000

60000 - 80000

>80000

Slums (JMC)

Slums (JDA)

Slums (HUP)

---- Railway Line

— Roads

Natural Drainage lines

water bodies

Municipal Boundary

Ward no. 11, 31 and 34 in the fringe areas of Jaipur higher population.

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP Jaipur Municipal Corporation

Kilometers

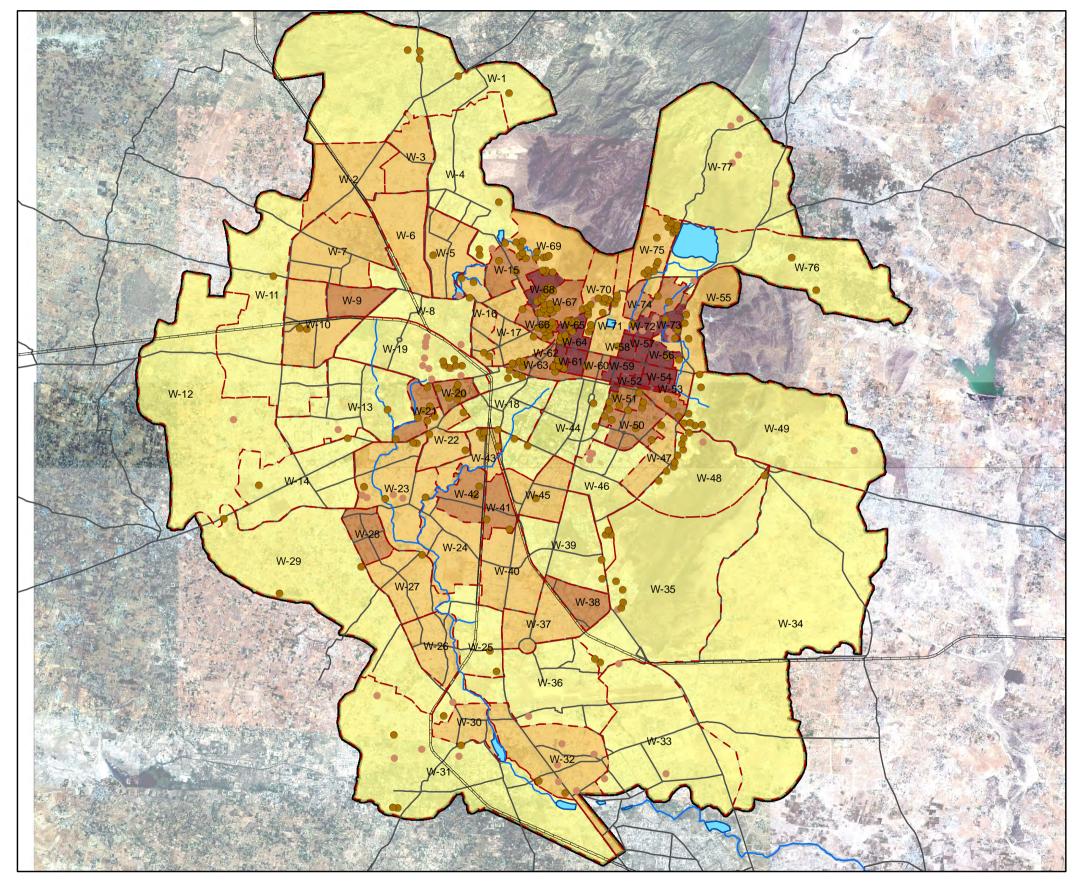
0 1.25 2.5















Legend

JMC Administrative Wards

Ward Population Density (people / sq km)

<10000

10000 - 20000

20000 - 50000

> 50000

Slums (JDA)

Slums (JMC)

Slums (HUP)

Railway Line

--- Roads

Natural Drainage lines

Water Bodies

Municipal Boundary

Ward no. 53 has the highest density.

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP Jaipur Municipal Corporation

Kilometers

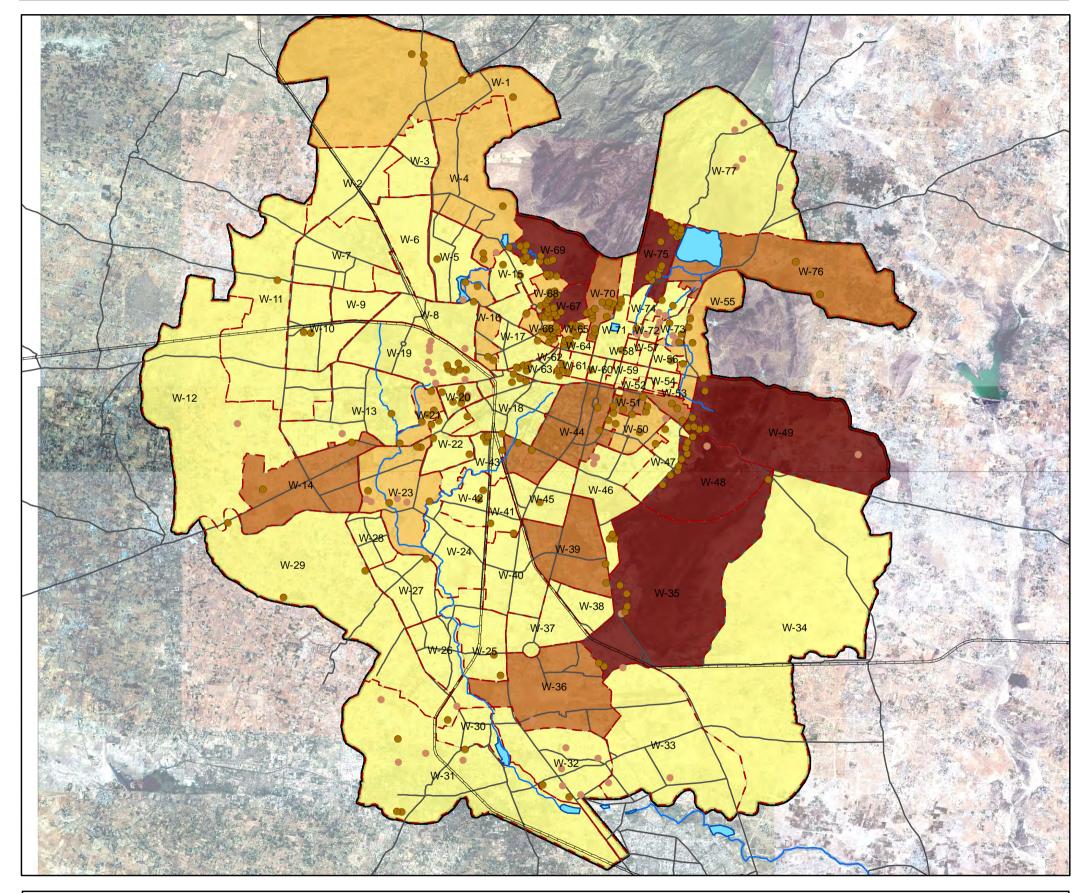
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Legend

Municipal Boundary

___I JMC Administrative Wards

Administrative Ward Slum Population

<5000

5001 - 10000

10001 - 20000

> 20000

Slums (JDA)

Slums (JMC)

Slums (HUP)

---- Railway Line

--- Roads

Natural Drainage lines

water bodies

Ward no. 69 has the highest slum population.

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP Jaipur Municipal Corporation

Kilometers

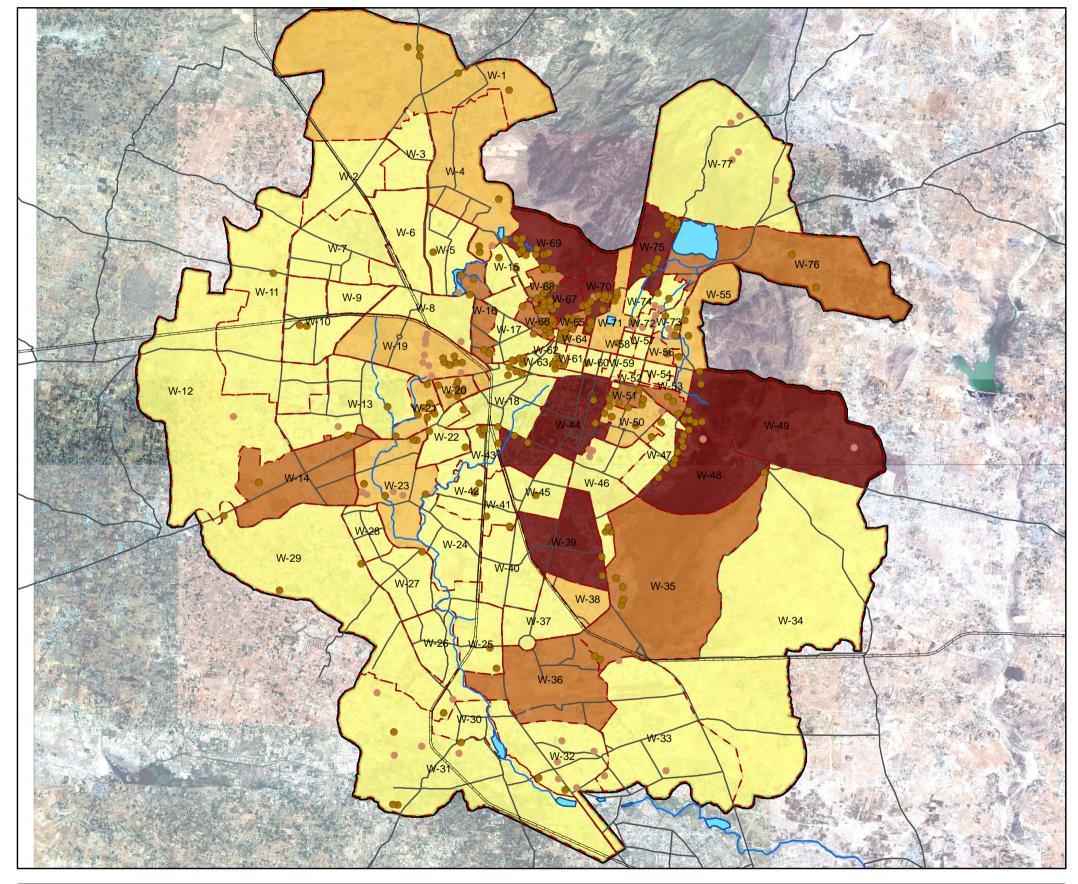
0 1.25 2.5















Legend

Municipal Boundary

JMC Administrative Wards

Administrative Ward Percentage of Slum Population

< 10 %

10 - 20 %

20 - 40 %

> 40 %

Slums (JDA)

Slums (JMC)

Slums (HUP)

Railway Line

Roads

Natural Drainage lines

water bodies

Ward no. 69 has the highest percentage of slum population.

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP Jaipur Municipal Corporation

Kilometers

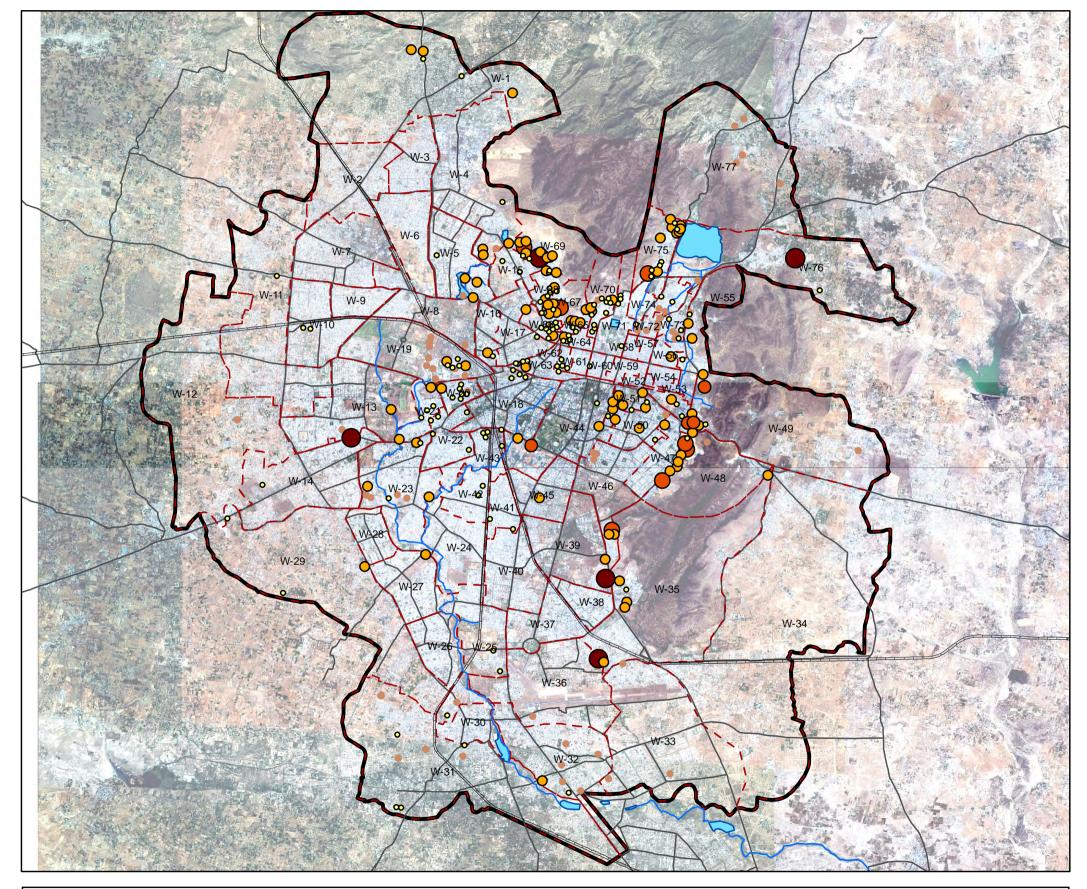
0 1.25 2.5









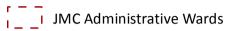






Legend

Municipal Boundary



JMC and JDA Slum Population

- <1000
- **O** 1000 5000
- 5000 10000
- > 10000
- Slums (HUP)
- ---- Railway Line
 - Roads
- Natural Drainage lines
- Water Bodies

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP Jaipur Municipal Corporation

Kilometers

0 1.25 2.5











Legend

Municipal Boundary



Health Facilities

- Dispensary
- Hospital
- ♣ CHC
- ▼ FWC
- **▼** MCWC
- Slums (JMC)
- Slums (JDA)
- Slums (HUP)
- Railway Line
- ---- Roads
- Natural Drainage lines
- Water Bodies

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP Health and Welfare Department, Jaipur District, Government of Rajasthan

Kilometers

0 1.25 2.5







W-49





City Health Plan for Jaipur 2013

Legend

Municipal Boundary

JMC Administrative Wards

Number of Anganwadis

0 - 15

15 - 30

> 30

Slums (JMC)

Slums (JDA)

Slums (HUP)

Railway Line

— Roads

Natural Drainage lines

Water Bodies

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP WCD Department, ICDS, Jaipur

Kilometers

0 1.25 2.5







W-49





City Health Plan for Jaipur 2013

Legend

Municipal Boundary

____I JMC Administrative Wards

No. of Anganwadi per 1000 Slum Population

No Slums

0 - 1

_

1-4

2 - 5

>

Slums (JMC)

Slums (JDA)

Slums (HUP)

Railway Line

--- Roads

Natural Drainage lines

Water Bodies

As per standards there should be one Anganwadi per 1000 slum population.

Prepared By:

Urban Management Centre, Ahmedabad

Prepared For:

Health of Urban Poor (HUP)

Data Sources:

Jaipur Urban Health Map, HUP WCD Department, ICDS, Jaipur

Kilometers

0 1.25 2.5



References

AHS, Registrar General & Census Commissioner, India. (20010-11). *Annual Health Survey Fact Sheet Rajasthan*. New Delhi: Ministry of Home Affairs, GOI.

Approved PIP of District Jaipur- I and II, NRHM. (2010, 2011, 2012, 2013).

Bhatnagar, N. (2012). Microbiological Analysis of Chlorinated Water Supplied in Jaipur.

Department of Medical Health and Family Welfare, GoR. (n.d.). *National Blindness Control Program*. Retrieved March 30, 2013, from http://rajswasthya.nic.in/: http://rajswasthya.nic.in/Bliend.htm

Department of Medical Health and Family Welfare, GoR. (n.d.). *Revised National TB Control Program*. Retrieved March 30, 2013, from http://rajswasthya.nic.in: http://rajswasthya.nic.in/TB.htm

Dept. of Urban Development, Housing & LSG Department. (2012). *Slum Development Policy*. Jaipur: Government of Rajasthan.

Gol, Census of India. (2011).

Gupta, S. P. (2009). Changes in IMR in Rajasthan over 25 Yeard. *Health and Population: Perspectives and Issues*, 105.

IIHS. (2011). Urban India 2011: Evidence. India Urban Conference.

Jaipur Municipal Corporation. (2008). *City Profile*. (JMC) Retrieved March 07, 2013, from http://oswal.selfip.com; http://oswal.selfip.com/jaipurweb/UI/Static/staticpage.aspx?pageid=9

JMC. (2011). Birth and Death Registration. Jaipur: JMC.

LEA Associates. (2006). City Development Plan. CEPT, PDCOR. Jaipur: Government of Rajasthan.

Medical, Health & Family Welfare Department, GoR. (n.d.). *National Rural Health Mission*. Retrieved March 29, 2013, from http://nrhmrajasthan.nic.in:

http://nrhmrajasthan.nic.in/Organization.htm#dhms

MIA. (2012, March). The Burden of Disease among India's Urban Poor.

Ministry of Health ad Family Welfare. (2008). *Meeting the Health Challenges of Urban Population especially the Urban Poor.*

Ministry of Health and Family Welfare. (2010). Annual Report to the People on Health. New Delhi: Gol.

Ministry of Health and Family Welfare. (2011). National Vaccine Policy. New Delhi: Gol.

Ministry of health and family welfare. Rajasthan State Report. NRHM.

Ministry of Health and Family Welfare, GoR. (n.d.). *National Vector Bom Disease Control Program*. Retrieved March 30, 2013, from http://mohfw.nic.in:

http://mohfw.nic.in/NRHM/PIP_09_10/Rajasthan/NVBDCP_text.pdf

Monica Das Gupta, B. R. (2010, March 6). How Might India's Public Health Systems Be Strengthened? Lessons from Tamil Nadu. *Economic and Political Weekly*, 46.

MoUD. (2008). National Urban Sanitation Policy. New Delhi: GOI.

MoUD, GOI. (2010). Improving Urban Services through Service Level Benchmarking.

MoUD, Gol. (2011-12). Service Level Benchmark. Jaipur: Gol.

NIUA. (n.d.). *City Profile*. Retrieved March 07, 2013, from http://www.niua.org: http://www.niua.org/city_des.asp?title=Jaipur

PIP Rajathan MH&FW, GoI. (2012, May). APPROVAL OF STATE PROGRAMME IMPLEMENTATION PLAN 2012-13: RAJASTHAN . Rajasthan.

Planning Commission of India. (2011). *High Level Expert Group Report on Universal Health Coverage for India.* . New Delhi.

Planning Commission. (2006). Rajasthan Development Report. Delhi: Academic Foundation and Gol.

Planning Dept, Gov. of Rajasthan. (2012-2017). *Twelth five year plan*. Water Supply and Sanitation. Government of Rajasthan

(http://www.planning.rajasthan.gov.in/Twelfth%20Plan/Chapters/Chap_22_Water%20Supply.pdf).

Rajasthan State AIDs Control Society. (n.d.). Retrieved March 30, 2013, from http://www.rsacs.in: http://www.rsacs.in/officelist.html

Rekha ben, R. (2013, February 8). SEWA-MHT. (Poulomee, Interviewer)

RUIDP. (2005). *Bisalpur Water Supply*. Retrieved March 07, 2013, from http://www.ruidp.gov.in: http://www.ruidp.gov.in/bisalpur-water-supply/bisalpur-water-supply.htm

State Institute of Health & Family Welfare, Jaipur. (n.d.). *Schemes of Government of Rajasthan in Health*. Retrieved April 1, 2013, from http://www.sihfwrajasthan.com/:

http://www.sihfwrajasthan.com/ppts/full/Schemes%20of%20Government%20of%20Rajasthan%20in%20Health.pdf

Studies, Institute of Development. (2008). *Human Development Report Rajasthan*. Planning Commission, Goi, UNDP, Jaipur.

The Hindu. (2013, May 2). *Urban Health Mission to cover 7.75 crore people*. Retrieved from http://www.thehindu.com/news/national/urban-health-mission-to-cover-775-crore-people/article4674361.ece

The Times of India. (2013, January 28). Govt plans double check on hospitals to reduce infant, maternal death rates. Jaipur.

Urban Development and Housing Department. (2006). *Rajasthan Urban Housing and Habitat Policy*. Government of Rajasthan.