



Mission Directorate

National Health Mission, Odisha
Department of Health & Family Welfare,
Government of Odisha

Letter No. OSH&FWS/11924 /
NUHM-68/16

Date 28.12.2020

From

Mrunal Kanti Das, OAS
Addl. Mission Director
NHM, Odisha

To

All the CDMO-cum-District Mission Director,
(Except Bargarh, Nayagarh, Nuapada, Subarnapur, Boudh and Deogarh,)
The ADUPHO, Bhubaneswar /Cuttack/ Berhampur/ Rourkela

Sub: Planning and mapping activities under NUHM: regarding

Madam/Sir,

With reference to the subject cited above, I am to inform that as per the approval in the NHM PIP 2020-21, GIS mapping of the city, health institutions, service area of the service providers shall be created for all cities/towns under NUHM except Sambalpur and Bargarh. The cost of GIS mapping per Municipal Corporation City is Rs.45, 000/-per city and for other towns it is Rs.30, 000/- per ULB. Detailed guidelines and deliverables for the planning and mapping activities are attached as annexure.

You are requested to complete the activity by 15th February 2021. The expenditure on the activity shall be booked under FMR.U.2.3.5.

Yours faithfully,


Addl. Mission Director
NHM, Odisha

Date 28.12.2020

Memo no. 11925

Copy forwarded to all Collector & District Magistrates for kind information.


Addl. Mission Director
NHM, Odisha

Date 28.12.2020

Memo no. 11926

Copy forwarded to the Commissioner, Municipal Corporation, Bhubaneswar/
Cuttack/ Berhampur/Rourkela for kind information.


Addl. Mission Director
NHM, Odisha



Mission Directorate

National Health Mission, Odisha
Department of Health & Family Welfare,
Government of Odisha

Memo no. 11927

Date 28.12.2020

Copy forwarded to the Executive Officers, ULBs, NUHM Cities/towns for information.


Addl. Mission Director
NHM, Odisha

Memo no. 11928

Date 28.12.2020

Copy forwarded to all the DPHOs for information and necessary action.


Addl. Mission Director
NHM, Odisha

Memo no. 11929

Date 28.12.2020

Copy forwarded to all the DPM, NHM/CPM-UH/APM-UH for information and necessary action.


Addl. Mission Director
NHM, Odisha

Deliverables of planning and mapping

SI	Deliverables	Responsibility
1	Preparation/updation of city map and GIS map	CPMU/DPMU Team
2	Preparation/updation of UCHC map and GIS map	CPMU Team
3	Preparation/updation of UPHC map and GIS map	CPMU/DPMU Team, UPHC team- MO (I/C) PHM/DAA
4	Preparation/updation of ANM operational area map	UPHC team- PHM/DAA/ANM In case non availability of UPHC the DPMU team/ANM

5/1

Budget Estimate for GIS Mapping					
Sl.No.	Activity	Total unit	Unit cost(Rs.)	Total cost(Rs.)	Budget Code
1	City GIS map/updating of UCHC/UPHC/ANM service area map(Corporation ULBs) except Sambalpur	4	45,000	1,80,000	U.2.3.5
2	City GIS map/updating of UPHC/ANM service area map(Non Corporation ULBs) except Bargarh	30	30000	9,00,000	
	Total			10,80,000	

2020

Guidelines on mapping and vulnerability assessment



National Health Mission , Urban
Health Cell, Odisha
Mission Directorate, NHM, Odisha
2020

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A. Introduction

The National Urban Health Mission (NUHM) is a sub-mission of National Health Mission (NHM) which envisages addressing the health care needs and reducing out of pocket expenses of the urban population with a special focus on the urban poor and vulnerable groups. It aims to strengthen the urban primary health care system, establish strong outreach linkages with vulnerable population, and facilitate convergent action towards other social determinants of health.

Convergence with various schemes relating to the wider determinants of health such as urban development, drinking water, sanitation, education, nutrition implemented by other ministries and departments is the other pivotal strategy of this Mission.

To effectively respond the needs of the urban vulnerable population and plan for efficient outreach, referral services, facility based services the knowledge of the following elements is essential:

- Identifying and mapping the vulnerable population
- Awareness base of the habitat of the urban poor and other vulnerable groups,
- Assessing the degree of their vulnerability
- Capacity and spread of existing public & private health facilities and their location and catchment area.
- Services rendered by other departments especially those meant for the urban poor
- Geographical variations and other social as well as environmental determinants and convergent planning towards the same

To understand the above elements, NUHM envisages undertaking 'Vulnerability Mapping and Assessment' in urban areas so that the location of the Urban PHC/CHC and sites for Outreach Services may be optimally planned and health care services can be organized as per the needs of these vulnerable groups.

B. The specific objectives of this guideline are as follows:-

- To develop the city level, facility level and community level maps on different set of indicators.
- To identify different categories of vulnerable groups (slums, mobile population, etc.) vis-à-vis services, infrastructure and environmental issues

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- To understand health issues, health needs and health seeking behaviour of vulnerable groups
- To understand the barriers faced by the poor and marginalized in accessing services
- To locate existing healthcare services, understand the accessibility and responsiveness to needs of vulnerable populations
- To understand and ascertain multitude of inequality among vulnerable population at Household, Slum and Ward level
- To identify the actual location /distribution of the key focus groups and thereby designing of special service provision to reach these population groups
- To prepare map individual household for monitoring of the activities of MAS
- To develop the plan of action and also to prioritization of services

It is essential to note that 'Vulnerability Mapping and Assessment' is not to be seen as one time activity. Cities/towns may be required to revisit the exercise on a periodic basis so as to revise the plan for conducting Outreach and Special Outreach services. This may not be extensive exercise and can be conducted in a sampled way as an annual exercise which can be linked to the annual planning and budgeting process.

C. Purpose of City Mapping and Vulnerability Assessment

After establishing appropriate institutional mechanisms, the second step towards implementing NUHM is to understand the health needs of the vulnerable population. The process of mapping must make the vulnerable visible to the health care system, and capture their problems in access, and their health care needs. Mapping is not only the geo-spatial distribution of populations and physical structures, but also the social relationships and issues of access to health care.

D. Types of Mapping

There are various types of mapping that are being conducted, these include slum mapping, facility mapping, city mapping and vulnerability mapping. While all these may contribute to understanding of vulnerability, Districts/Cities must plan their mapping in such a way that they get the desired information in a holistic way. It is suggested the following mapping be carried out:

1. City mapping through GIS mapping
2. UCHC catchment area mapping
3. UPHC Catchment area mapping
4. ANM area mapping
5. Vulnerability Assessment (Ward level, Slum level and household level)

1. City Mapping

This is a geographic mapping of the city specifically capturing spatial information relevant to urban health. The objective is to get an accurate map of the city with all geographic information relevant to urban health. These include knowledge of all health facilities (public and private), their catchment areas, slums with population, anganwadi centers, educational institutions (public and private), municipal and ward boundaries, major road networks, major landmarks and major water bodies.

City Mapping will help the urban health team in understanding the location of slums in relation to health facilities, the spread and distribution of urban slums and vulnerable pockets and the geography of the city. This will help in:

- Rationalizing the location of health facilities (UCHCs/UPHCs and health kiosks in particular)
- Ensuring that vulnerable populations are provided adequate services

Cities/Districts may conduct city mapping either through GIS or through a manual consultative process. GIS mapping of cities is recommended, and may be undertaken through government departments specializing in remote sensing and spatial mapping or by outsourcing to private agencies. Alternatively, Cities/Districts may conduct the mapping exercise manually, by obtaining a current map from the city administration (Housing and Urban Development Department, ULB) and updating it through physical verification. For physically verifying, the city may be divided into zones or clusters, and a mapping team assigned to each cluster. This team shall update the map for their zone through discussions with key informants and field visits. Further, District/city may outsource the assignment to private agency as per the tendering process.

The city map must essentially depict the following elements:

- Location of slums, slum-like habitations and vulnerable pockets with population: Spread and distribution of slum settlements (location of settlements of notified, un-notified, mobile population/ migrants, etc.)
- Health facilities of all types (primary, secondary and tertiary, public, private, charitable), with their catchment areas, if demarcated
- Anganwadi centers
- Administrative boundaries (administrative divisions such as zones, municipal ward boundaries, government land, private land, etc.)
- Environmental features (water bodies, natural drains, landfill sites, low lying areas)
- Physical infrastructure (major road networks, major landmarks, factories)

In addition, it is desirable, though not essential to depict the following elements also:

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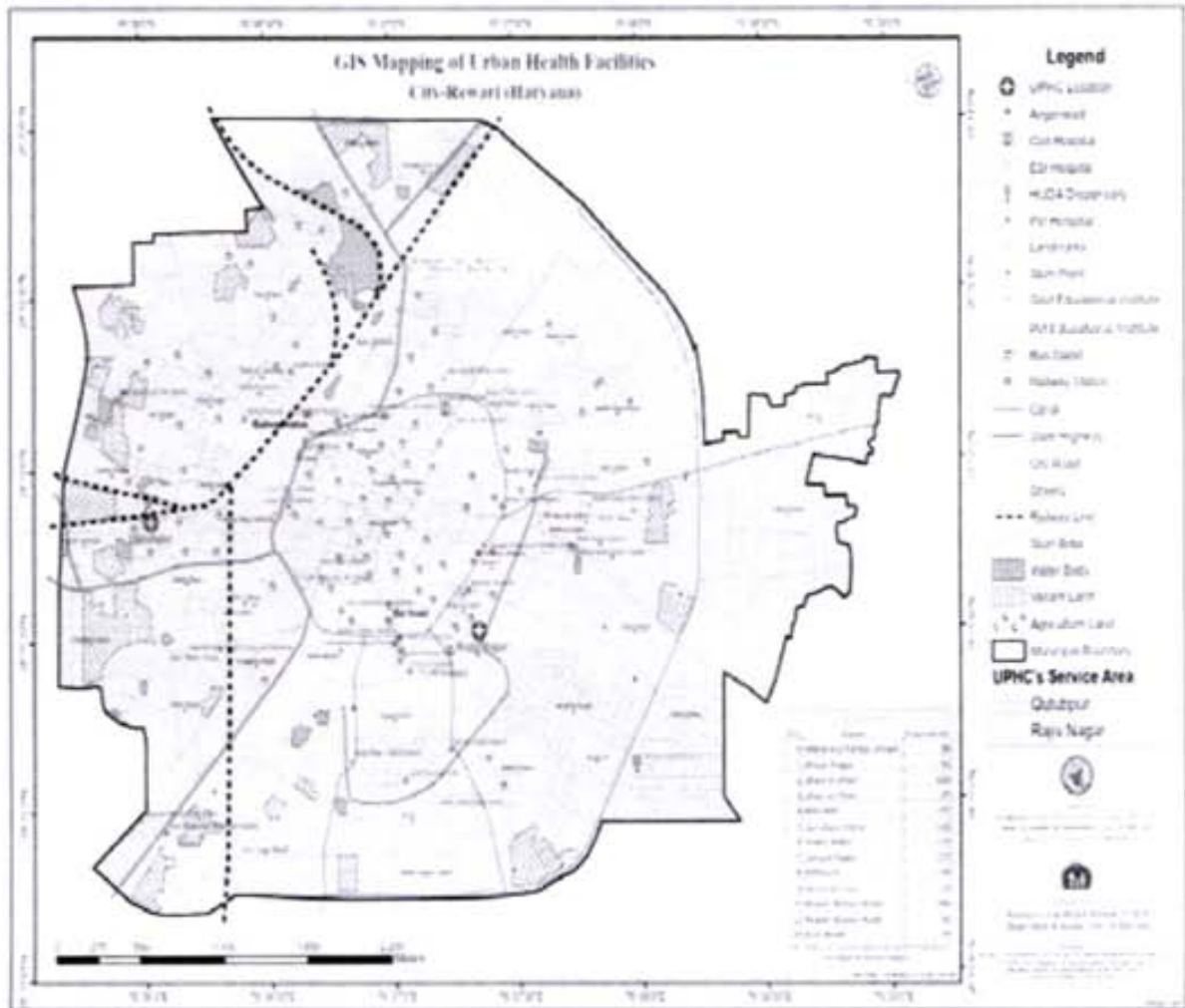
- Community infrastructure developed under urban development programs such as Rajiv Awas Yojana, Jawaharlal Nehru National Urban Rejuvenation Mission etc.
- Educational institutions (public and private)
- Other services (orphanages, old age homes, night shelters, de-addiction centers etc.)

The following elements shall emerge from a well conducted mapping exercise:

- List of all public health facilities in urban areas
- List of UCHCs/UPHCs with catchment areas
- List of major private health facilities
- List of slums with population numbers
- List of anganwadi centres in the slum areas
- List of government and private educational institutes
- Municipal and ward boundaries
- Major road networks
- Major landmarks
- Incorporation of available major water bodies

The sample of GIS map is given below ;

Sample GIS Map of Rewari city (Haryana)



2. Urban CHC Catchment Area Mapping

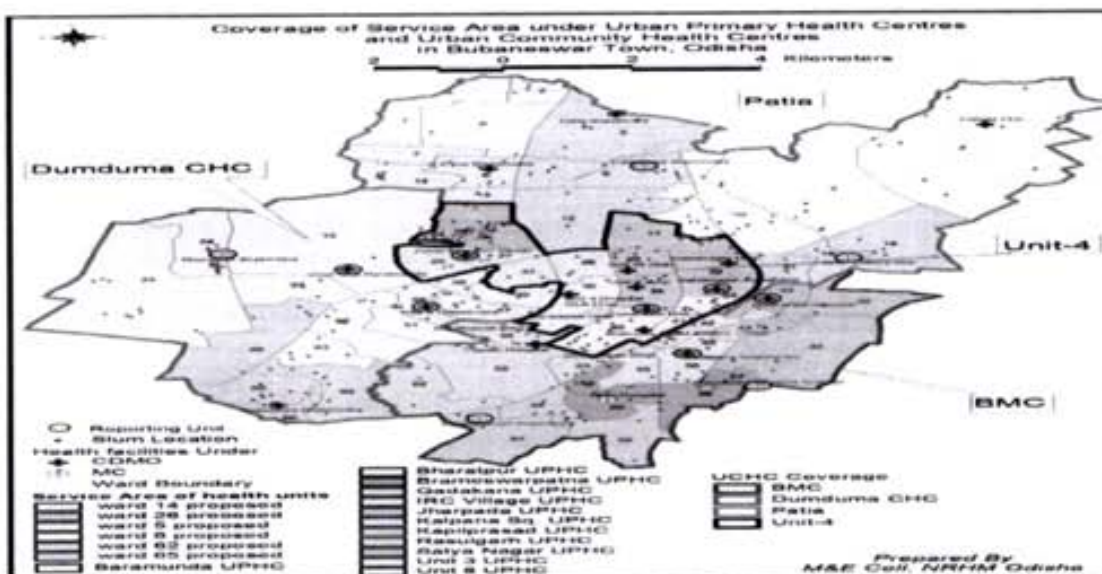
The catchment area of the Urban CHC(UCHC) should be depicted on a map, which may be prepared by the city program management unit in consultation with Medical officer(I/C) , PHM, DAA and the ANMs. The map should depict the areas of each Urban PHC, ANM, location of ASHA, Location of MAS, Location of UHND sites, slum locations, and other major landmarks of the area.

The UCHC map will enhance the understanding of the population served among the UCHC. It will also ensure that no pockets in the UCHC's catchment area are left out from the purview of the UCHC team.

3. Urban PHC Catchment Area Mapping

The catchment area of the UPHC should be depicted on a map, which may be prepared by the respective UPHC staff by involving MO, Public Health Manager, Data Assistant cum Accountant ANMs., ASHAs. The map should depict the areas of each ANM, Location of ASHA, Location of MAS, Location of UHND sites, location of immunization sites, location of the outreach camp sites, Location of AWC, Location of the schools, slum locations, and other major landmarks of the area.

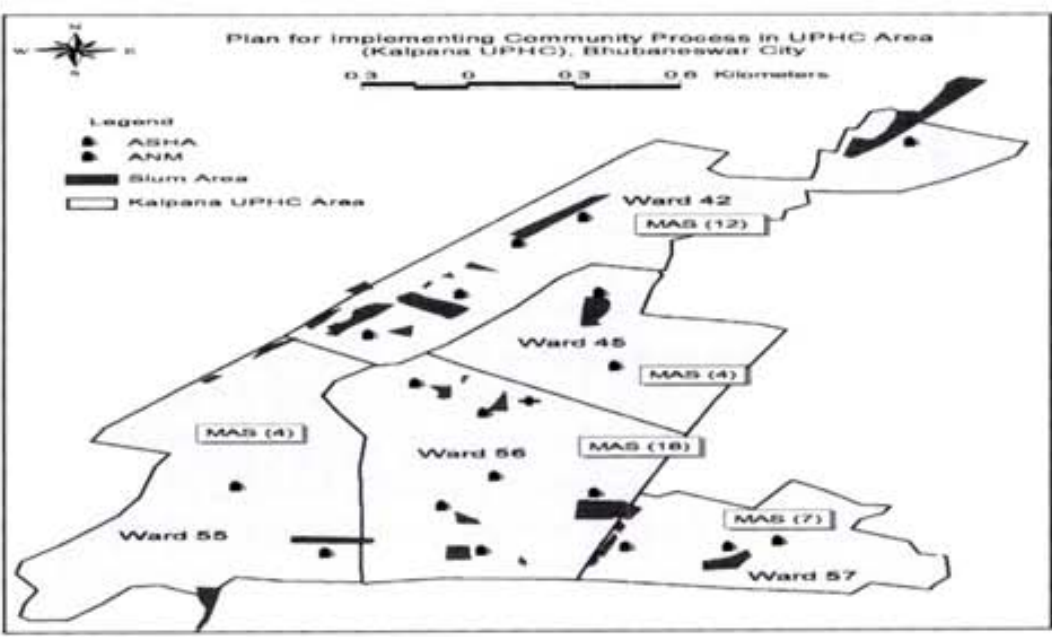
The UPHC map will enhance the understanding of the population served among the UPHC staff. It will also ensure that no pockets in the UPHC's catchment area are left out from the purview of the UPHC team. Participation from the community will also generate awareness about the UPHC, its location and services among the community. The sample map is given below ;



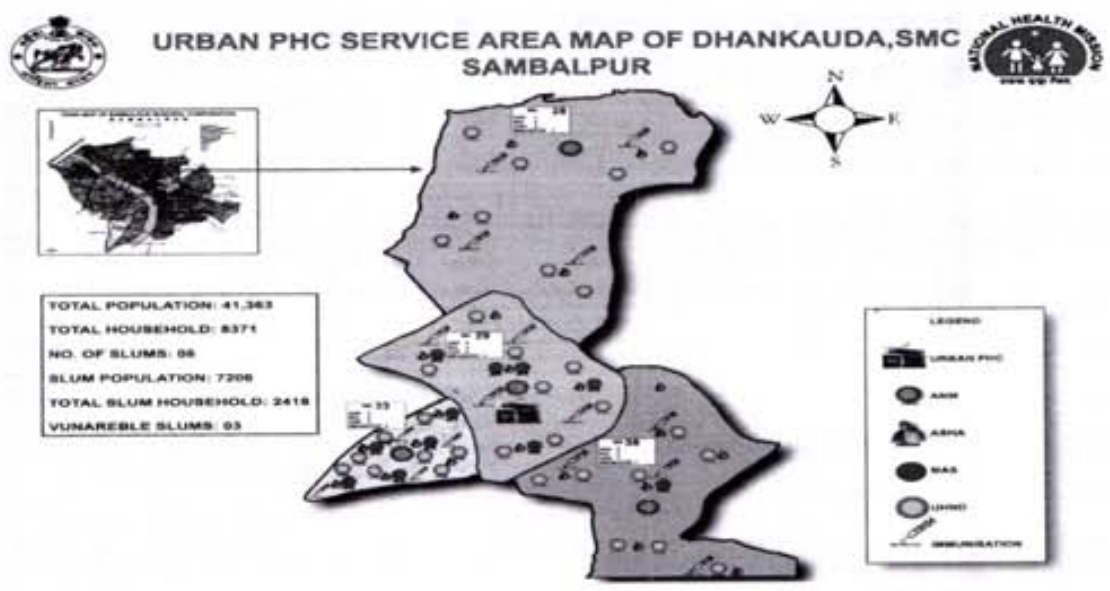
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4. ANM catchment area

The catchment area of the ANM should be depicted on a map, which may be prepared by the respective ANM involving ASHA, AWW, Data Assistant cum Accountant & others if required. The map should depict the areas of each Location of ASHA, Location of MAS, Location of UHND sites/UHND sites/outreach camps sites, location of the AWC, Location of the schools, slum locations, and other major landmarks of the area etc. The sample of map is given below



UPHC wise distribution of the ANM and different manpower and services



5. Vulnerability Assessment

The Vulnerability Assessment in the context of NUHM means assessing the level of vulnerability of a slum or household towards ill-health. The question it should answer is: *What factors put a household at a greater risk of falling sick?*

It has been well established that various vulnerable groups may face disproportionate burdens of ill-health. Vulnerability is commonly associated with poor economic and nutritional status, but many other overlapping social vectors such as quality of housing and public services, occupation, gender, disability, marital status, age, stigmatized and debilitating ailments and many other aspects are not recognized.

This is a qualitative assessment of the vulnerability status of wards, slums and slum households in the city, to understand the vulnerability status of a particular slum and each household in the slum. This process will be conducted at three levels, namely, Ward level Vulnerability Assessment, Slum level Vulnerability Assessment and Household Vulnerability Assessment:

- a. **Ward level Vulnerability Assessment:** Ward level Team will be constituted comprising of ANM, PHM, DAA, ULB members, NGOs/CBOs of the area, ASHA, ICDS supervisor, Community Organisers & others to prepare/conduct ward level vulnerability assessment. The DPMU/CPMU may finalise the modality for ward level vulnerability assessment. The toolkit may be used to collect the requisite information on vulnerability as mentioned in annexure. As a part of the Ward Level vulnerability assessment, the following information may be collected:
 - Social characteristics of population: literacy, presence of schools, presence of NGOs/CBOs, occupation.
 - Healthcare services: availability and accessibility to primary health care, anganwadi centers, outreach services barriers related to access all health related services
 - Infrastructure: housing, availability of water, electricity, sanitation facilities.
 - Health conditions prevalent in community and their
 - Expectations and preferences with regard to the organization and access to health care.
 - Distribution of vulnerable groups, and concentration of homeless people

- b. **Slum level Vulnerability Assessment:** Teams (comprising ASHA, ANM, AWW, ULB members, MAS members, NGOs/CBOs to undertake slum level assessment as per the defined tool. The DPMU/CPMU may finalise the modality for slum level vulnerability assessment. The team may prepare slum resource map at community level. The process for slum vulnerability assessment is as below ;
 - Step -1 : Listing of the slums
 - Step- 2 : Selection of the NGOs/assessor

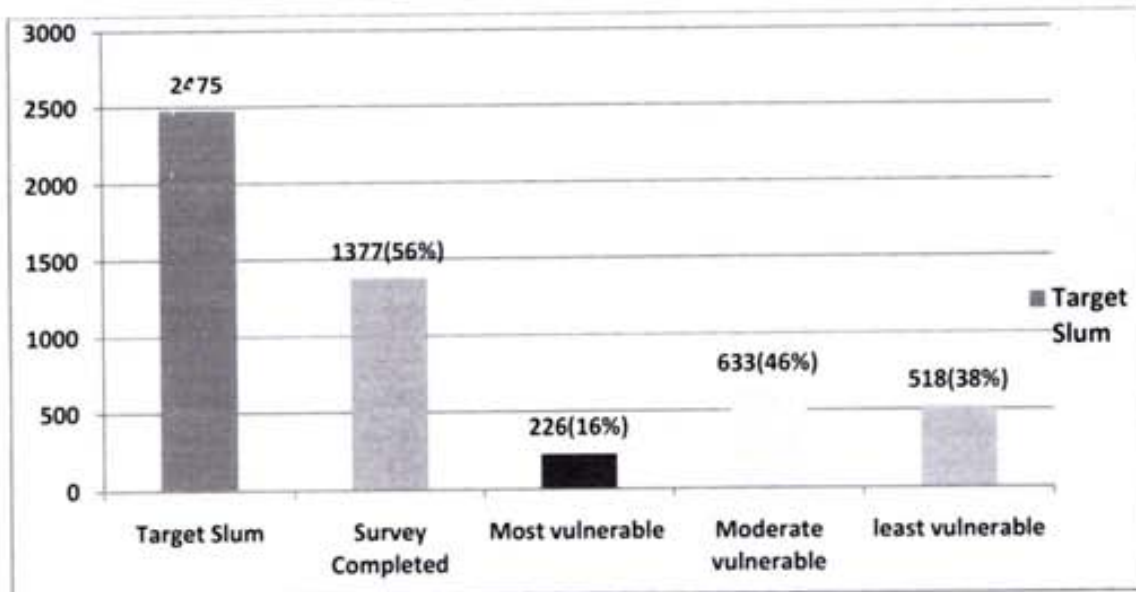
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- Step- 3 : Orientation to the city/district level officials/NGO/ASHA
- Step -4 : Collection of data
- Step -5 : Compilation, valediction in slum meeting
- Step-6 : Preparation of report

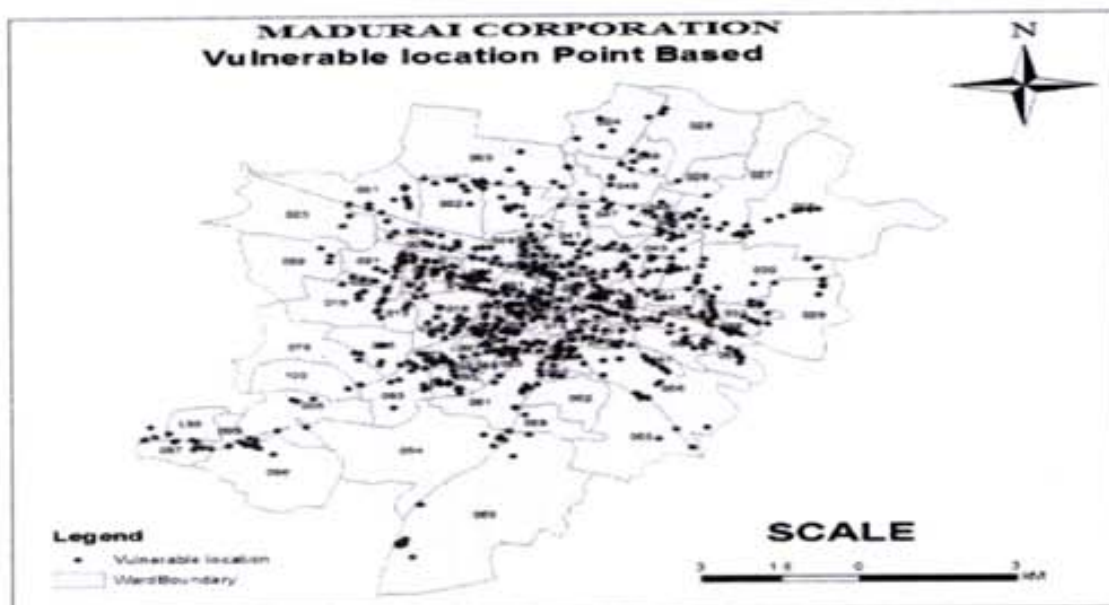
Further, the team will prepare the slum resource map. The sample slum resource map is given below ;



SLUM VULNERABILITY ASSESSMENT- STATUS example



Assessment of slum vulnerability assessment in example

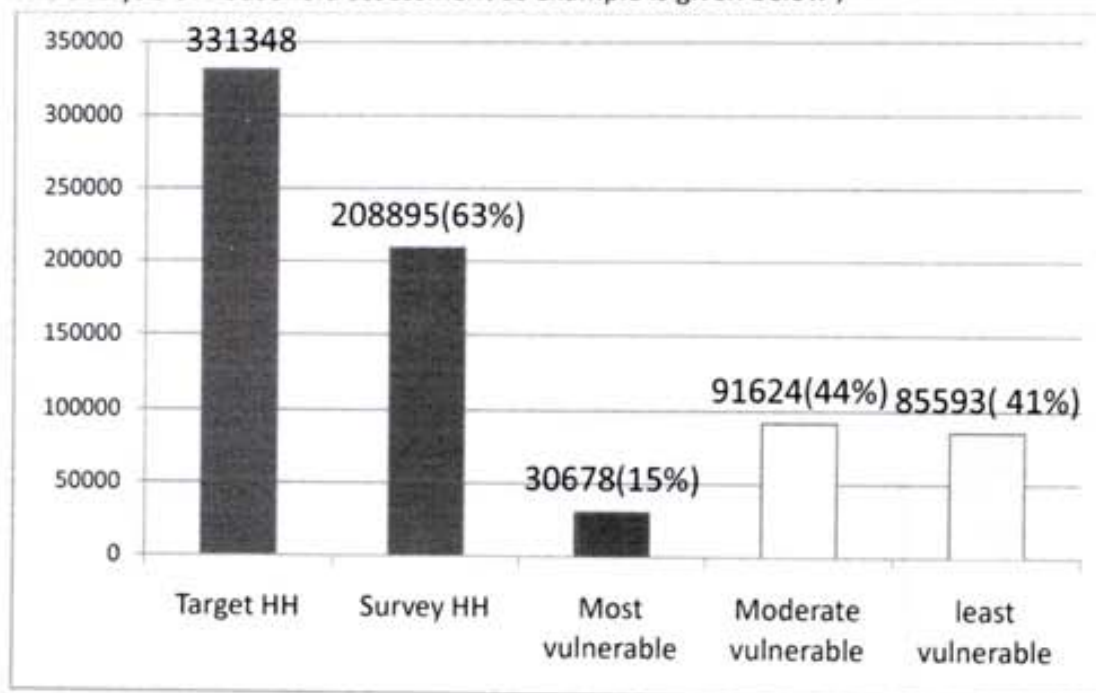


Vulnerable location point as per GIS mapping example

- c. **Household level Vulnerability Assessment:** The household level vulnerability assessment at the slum will be conducted by the respective ASHA or the partner NGOs/MAS. This is will cover entire urban population or urban slum and vulnerable population. However, as part of the UPHC’s mandate, the UPHC staff must visit each

household. The exercise can be merged with the Vulnerability Assessment process. Urban ASHAs may also be additionally incentivized to conduct the survey.

A database of all households and individuals covered may be maintained by the UPHC team and respective ANM. While the list may be obtained from existing sources (such as Census, Election Commissions House list, Pulse Polio list), a 'team comprising of the ASHA/link worker, community organizations/NGOs supervised by the ANM and Public Health Manager/Data Assistant cum Accountant must visit sample households to obtain basic details of demographic data in a prescribed format. The Vulnerability Assessment may be linked to the activity, and data for Vulnerability Assessment of the urban population may be collected during the process of household survey by the UPHC team. The analysis of household assessment as example is given below ;



Household level vulnerability is essential to understand the service needs of the urban population. While the term household has been used to mean an 'individual' or family based survey, the survey shall also cover urban vulnerable who fall outside the purview of a household – such as the homeless, street children and other such groups. The state may opt for a complete urban population survey (which is ideal) or only cover the urban poor and vulnerable population. It is highly recommended that the entire population be

covered by the survey, with priority given to the urban poor, as NUHM is ultimately responsible for the addressing the health needs of the entire urban population.

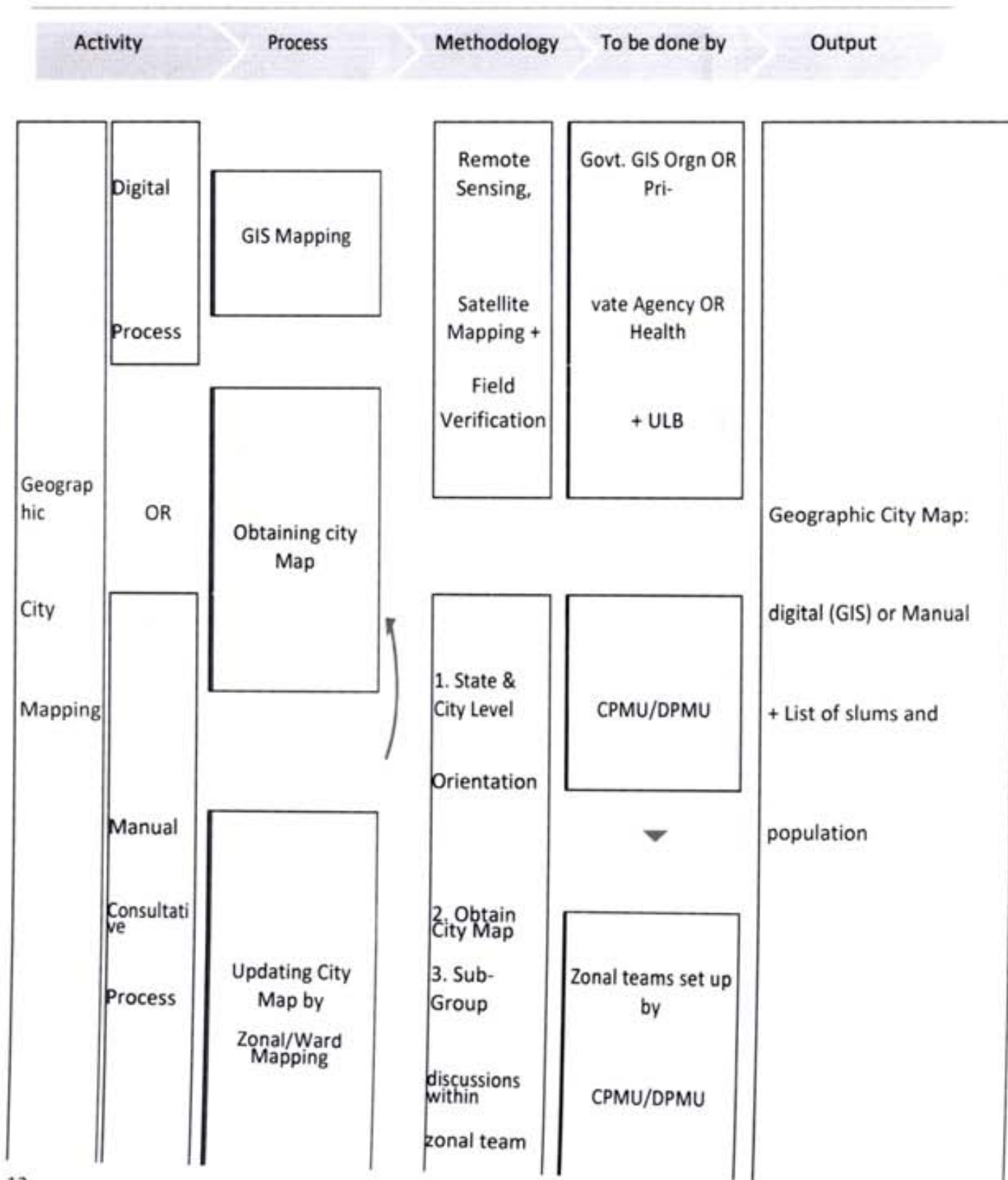
It is essential to undertake this survey to:

- Understand the population to be covered in terms of numbers and age groups
- Understand the extent and type of existing morbidities among beneficiaries
- Enroll all the urban households as beneficiary of the UPHC
- Make the beneficiaries aware of the UPHC and its services, and encourage them to avail services

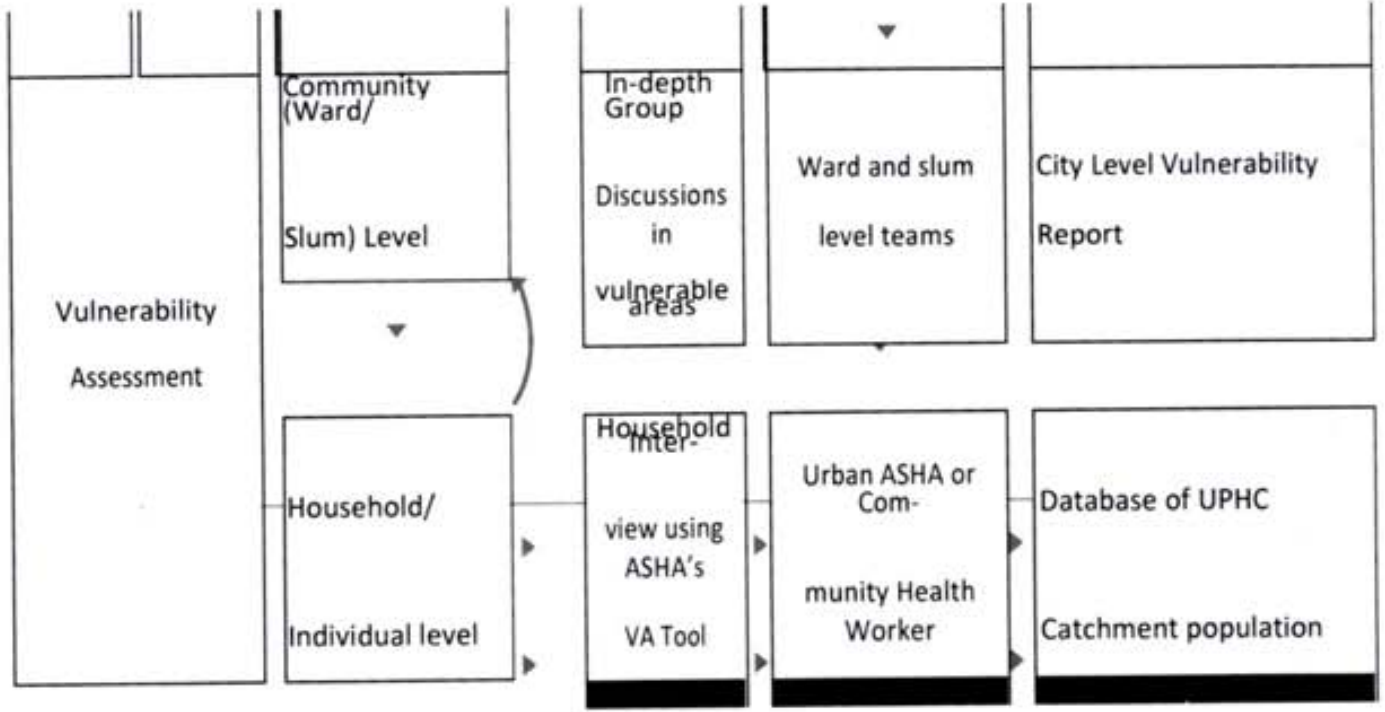
Household Level Vulnerability Assessment	
Key Respondents	Households / Individuals from slums and vulnerable population
Responsibility	UPHC Team or urban ASHAs (as decided by the District/city) (if all urban households)
Process	<p>The process shall differ in case the state is undertaking Complete Urban Household Survey or only Vulnerable Household Survey.</p> <ul style="list-style-type: none"> - Complete Survey: Demographic data collection cum Vulnerability Assessment - Vulnerable survey: The assessment will be done using the tool provided in the 'Induction Training Module for ASHAs in Urban Areas'. The tool is at Annexure for reference. <ol style="list-style-type: none"> i) Listing of slum settlements in the U-PHC catchment with demographic details. ii) Orientation of ASHAs and MAS members iii) Field data collection planning iv) Data collection
Key Outputs	Database of UPHC Catchment area population (complete or only vulnerable) according to level of vulnerability
Timeline	Timeline will be planned for the entire slum settlement/ U-PHC/ANM catchment area.

More details on Vulnerability Assessment Process can be found in "Guidelines and Tools for Vulnerability Mapping and Assessment for Urban Health, MoHFW, 2017"

Flowchart for City Mapping and Vulnerability Assessment

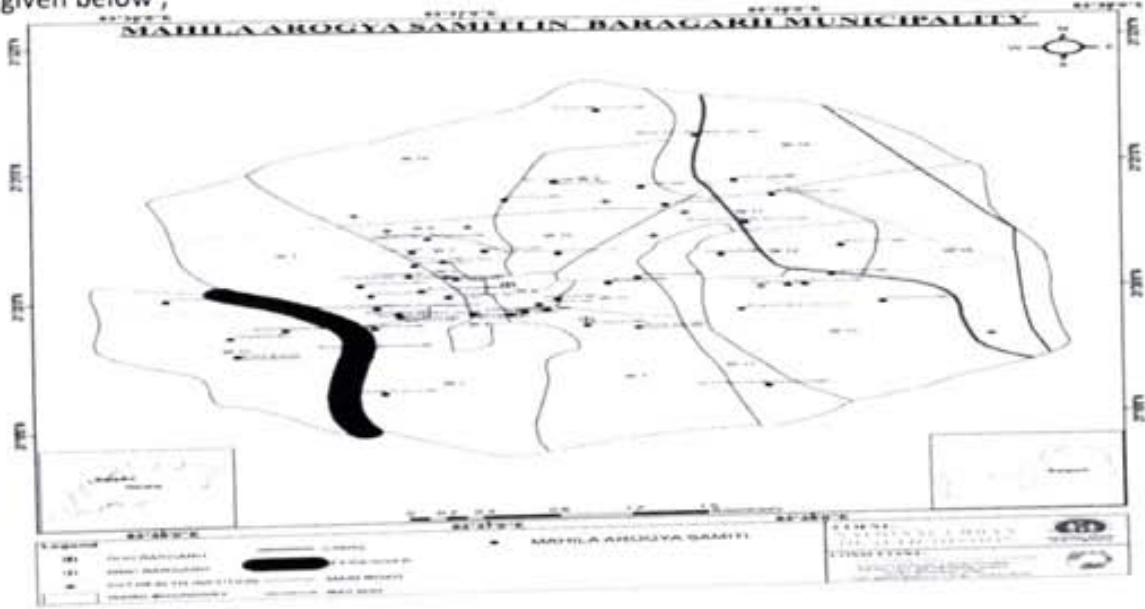


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d. Preparation of Map and Vulnerability assessment by MAS

The City/District may prepare the GIS map to identify the location of the MAS. As part of the mapping, the district/city to develop/update slum health resource map for each slum, map for distribution of households among the MAS members, MAS resource map etc. The members of MAS to be engaged in preparation of maps. The sample map is given below ;

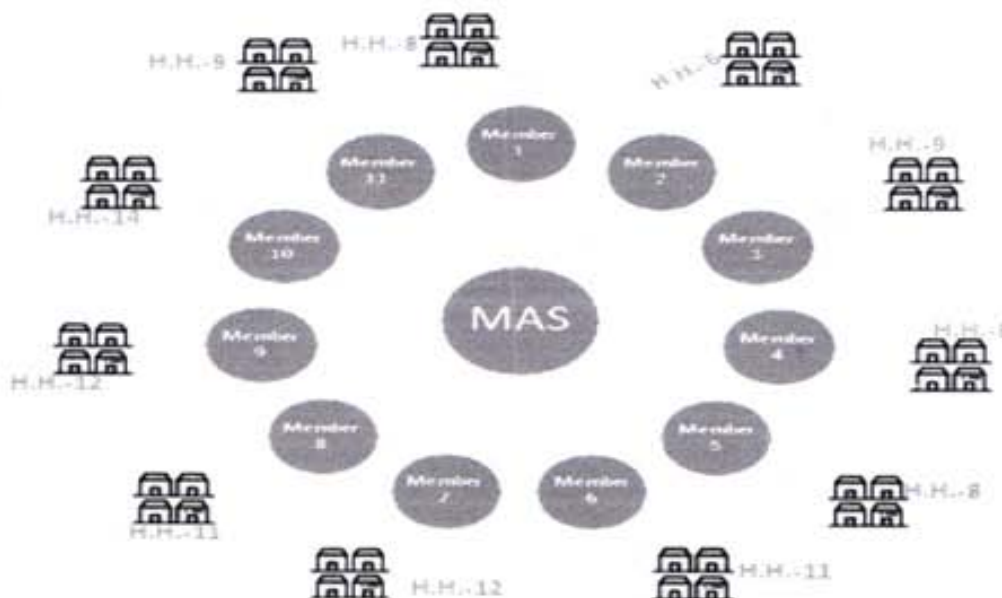


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All the households within the MAS operational area shall be distributed among the MAS members and Each MAS member will be assigned some households to follow up day to day activities. During the household assessment following steps will be taken

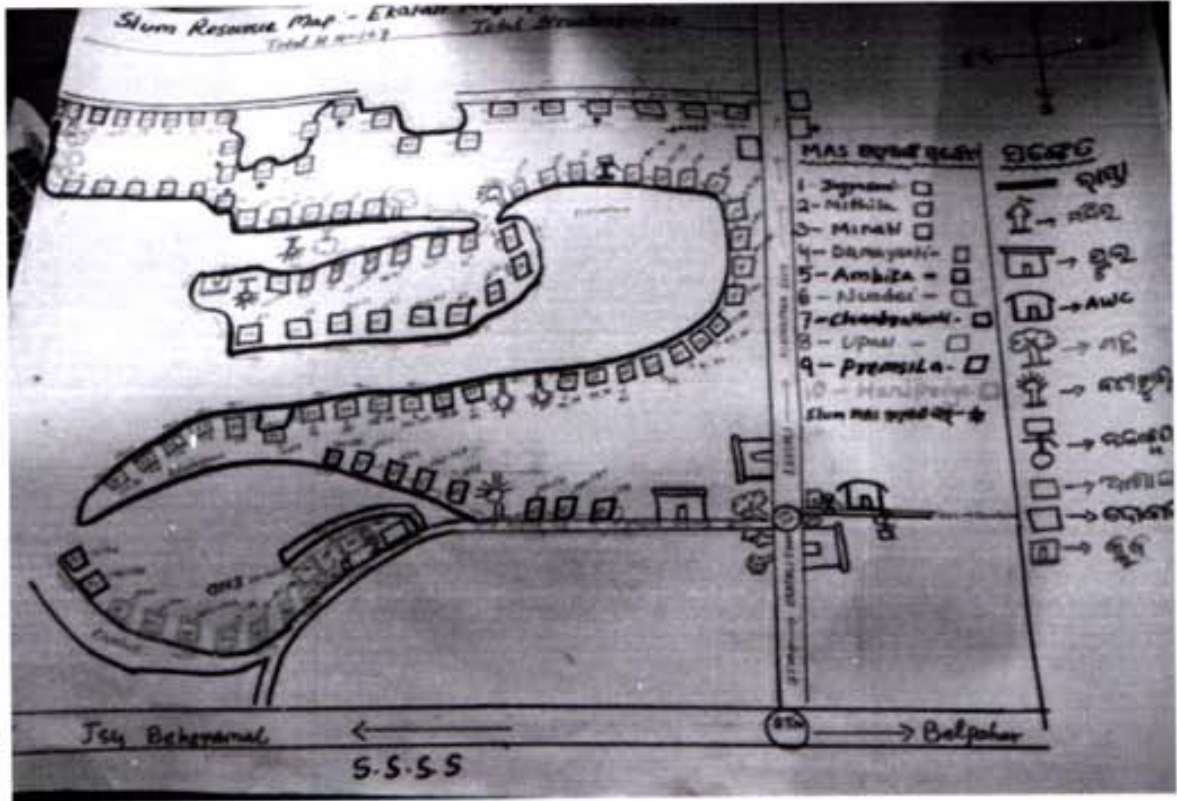
- Step – 1 : Printing of tool in Odia language
- Step – 2 : Orientation to ASHA/MAS member
- Step – 3 : Data collection
- Step – 4 : Data consolidation/Validation by ANM/DAA/PHM/NGO
- Step – 5 : Report preparation by CPMU/DPMU

Household distribution map among the MAS member; example



In the map 18 slum households have been distributed among 11 MAS members. The district/city has to ensure distribution of household among the MAS.

Distribution of household among the MAS members – example in map



Identification of slum households for different intervention : Map



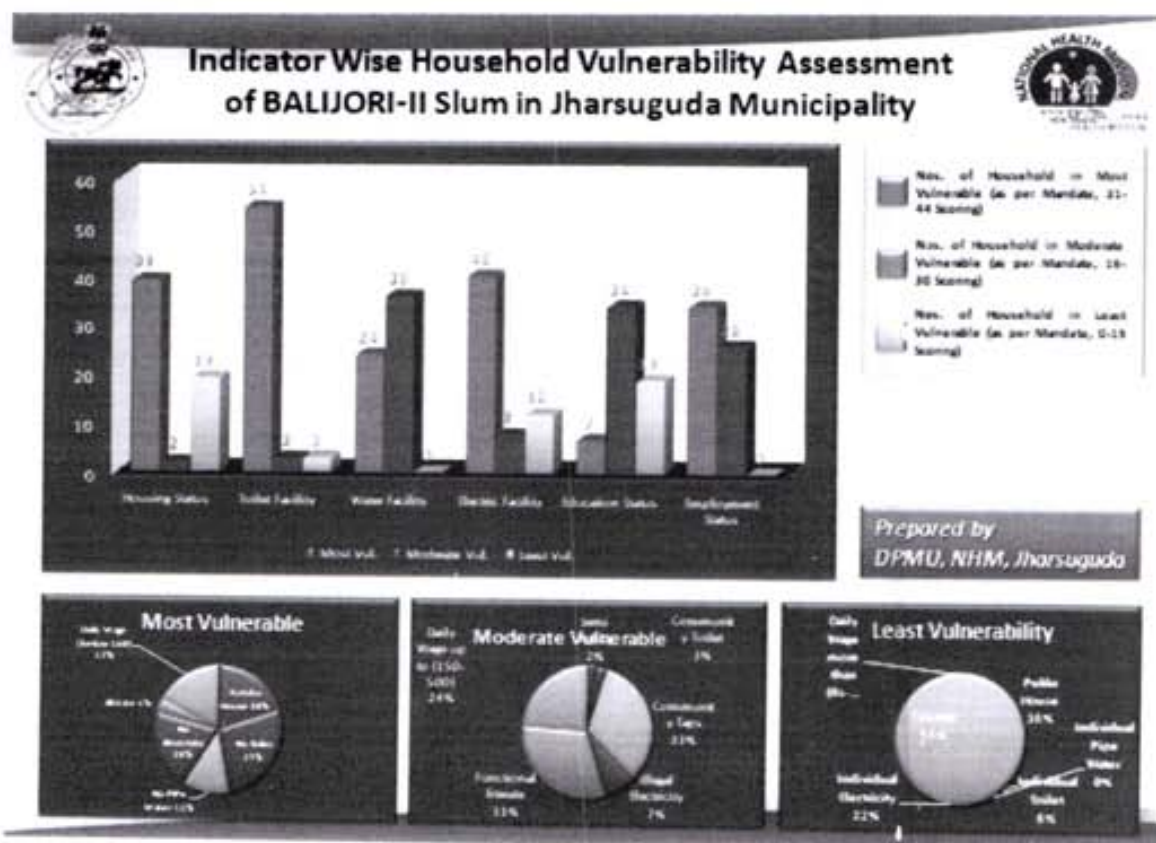
After the assessment, the information will be collected at ANM/UPHC level and each MAS member wise sheet will be prepared to assess the number of most vulnerable, No of high vulnerable and No of vulnerable members in the community. The sample assessment table is given below ;

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Name of the MAS member	0-15= Most vulnerable	16-30= Highly Vulnerable	31-42= Vulnerable	Total household
M1	3	2	3	8
M2	2	1	3	6
M3	5	3	1	9
M4	0	5	3	8
M5	3	3	2	8

- Section I- Residential Vulnerability : Indicators - 8
- Section II- Social Vulnerability : Indicators - 7
- Section III- Occupational Vulnerability : Indicators - 2
- Section IV- Health Related Vulnerability : Indicators- 4

Household level vulnerability assessment report example



E. Utilizing Mapping and Vulnerability Assessment for Better Planning

How shall the findings of the mapping and vulnerability assessment be utilized for better planning of health services? City mapping, UCHC area mapping, UPHC area mapping and ward, slum and household vulnerability assessment can provide very rich and in-depth information on

the location, type and extent of health needs of the population. It is then important to utilize that information to plan and deliver the necessary services to the population through the most appropriate platform. The mapping processes act as a guide on the following points:

- 1. Site Planning for new UPHCs:** The uncovered and the left-out pockets of the vulnerable populations may be the priority for locating new UPHCs sanctioned under NUHM. Alternatively, such pockets may need Mobile Medical Units, till the time a new UPHC comes up. Also, existing facilities which have many vulnerable pockets may need additional human resource and supplies of drugs and vaccines.
- 2. Urban Health and Nutrition Days (UHND):** A detailed assessment would help prepare an effective micro-plan for UHND with fixed site and personnel such as ASHA, ANM, Anganwadi worker in the city.
- 3. Special Outreach sessions:** Data on characteristics of vulnerability and the health needs of vulnerable groups would facilitate in better planning of Special outreach service. Such sessions, organized in existing community structures or make-shift kiosks would enable systematized delivery of opportunistic health care services as per the migration cycles, seasonality of health risks and other key factors typical to the vulnerable groups.
- 4. Community Process:** The mapping exercise will assist in robustly defining the catchment area and households for the ASHA and also build her capacity for delivering services as per the needs of the vulnerable groups under her coverage. The formation of Mahila Aarogya Samitis per 50-100 households is also facilitated by mapping of all households in the slum.
- 5. Public Private Partnerships:** Areas of service delivery emerging from the assessment process shall make it clear whether there is any need for support from the private sector. In case the ULB or state administration requires support in any area such as MAS formation, referral transport and recruitments, the state may request for proposal from the private sector with the specific deliverable. An assessment of available resources and stakeholders shall also indicate which partners would be the best for a particular activity. Therefore, health service delivery could be strengthened by establishing effective linkages with the private sector, for provision of services not available at the UPHC.
- 6. Convergence:** Vulnerability assessment will guide the Health Department on all the stakeholders they need to reach out to in order to address the various health issues identified such as water, sanitation, urban development, roads, transport and police. Vulnerable pockets reporting health issues related to drinking water, drainage,

sanitation and solid wastes, may be taken up with the ULB for more focused preventive actions.

- 7. **Surveillance, Monitoring and Evaluation:** The vulnerable pockets with a history of frequent outbreaks of diseases (like hepatitis, gastroenteritis, dengue) may necessitate identification and notification of field health functionaries (for reporting on Form-S) and laboratories (for reporting on Form-L) under IDSP. Mapping shall guide managers on which specific areas to focus on for surveillance.
- 8. **Referral Transport Network:** The City Mapping and Vulnerability Assessment shall provide an in-depth understanding of the location of available services vis-à-vis the location of vulnerable pockets. This will help the health officials in planning towards a robust referral network, connecting the supply with the demand. Based on population estimates and health burdens, the adequate number of vehicles, their location, human resources and best mechanism for coordinating referral chain can be planned better.

F. Preparation of maps by the teams:

The objective of these teams is to get accurate detailed information so as to update the geographical map of the area. The teams shall gather, available services with location, infrastructure and geographical information i.e forest, water bodies etc., types of vulnerable population in their zone to update the map. The information /data may be obtained through other sources as:

- a. **Secondary sources**, viz., Census Data, ward maps, Data from Immunization Programme, ICDS, City Base Map, online maps (e.g. Google maps)
- b. **Internal Discussions** - among the team members familiar with the area/zones
- c. **Discussions with other informants**, - such as MAS members, ASHAs, ground level municipal staff, community leaders, NGOs/CBOs etc.
- d. **Conduct physical visits in the zone** -The Urban Local Body or the Town/City Planning Department or other similar bodies may be reached out to assist with the process.

The map may reflect approximate distance between the various points which are important for the delivery of health services.

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Vulnerable Groups and Community Processes

II. About Vulnerable People as Community

S.No	Questions and Probes
1.	General Information
1.1	Since when you all have been staying here?
1.2	Where do you all come from? Same place or distance places?
2.	Social Category
2.1	Do you identify yourself as being part of a specific community? If yes, please tell which community you belong to? <i>(This question reveals the understanding of members about their community identity with respect to caste, religion, occupation, geography, or any other shared services).</i>
3.	Housing
3.1	What kind of houses are mostly available in your community (Pakka/ Kachha)? Does most of the people live in self owned or rented houses?
3.2	Are there any threats of being displaced from here? Of fire, or floods or physical dangers of any other sort.
4.	Occupation
4.1	What is the common occupation or occupations of your community? Are there any other occupational groups in your area? (list different types of occupation of the community)
4.2	Are people living in your employed throughout the year? If not, how many days on an average does they work for a year?

III. About Health Issues and Health Services

S.No	Questions and Probes

1.	Health Issues
1.1	What are the general health problems that your community face?
1.2	What do you think, are the causes for your health problems?
2.	Access to Health Services
2.1	How far is the nearest health facility? If the community face any problems in access to care in these facilities?
2.2	Where does people from the community generally go at the time of any health problems (Public or Private Health facility)? Give reasons for why you choose the specific health facility?
2.3	Kindly list the services provided in the nearest public facility? <i>(Probe for availability of doctors, drugs, diagnostics, any other)</i>
2.4	Where does women often go for delivery services (Public/ Private)? Why? <i>(Probe reasons w.r.t to availability of services, access, quality of care, cost, etc.)</i>
2.5	Are there any outreach camps like Immunization, ANC camps being organised in your area? If yes, when what is the frequency for the same? Do women and children from your community go to avail services from these outreach camps? <i>(probe for reasons)</i>
2.6	Is there any frontline staff (ASHA/ ANM etc.) assigned for your community? <i>(discuss to find in case there is an ASHA/ ANM, is she from there community, how regularly she imparts the desired services and any other related issues)</i>
2.7	Are there patients suffering from Tuberculosis/ Diabetes/ Hypertension in your community? What is their experience with access to care and drugs?
2.8	Is there any insurance scheme available for the families in your community? Do you have a card for it? Which members of the family are covered and which are left out? Do you know what the sum assured is and in which hospitals you are eligible to free care? Have you made use of the card to get any free services so far? If so the details? If you or family members have been ill but despite this unable to access free services- what are the reasons?

IV. Access to Other Services

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S.No	Questions and Probes
1.	Electricity Status
1.1	Does most of the houses have metered electricity connections? If yes, how many hours' there is face power-cuts generally in a day?
2.	Availability of Water
2.1	If there is availability of drinking water in your community? What the different sources of water? Where do you go to if there are problems in access and how responsive are the authorities on this?
3.	Availability of Toilets
3.1	Are there toilets in your community (public or individual)? If yes, are they being used by the community? If no, why?
4.	Waste Management System
4.1	Where do people dispose their solid wastes/rubbish in your locality? If authority regular clears the waste from your locality? (<i>probe to understand if there is a designated place for waste disposal, frequency of clearance of waste and any other issue associated with waste</i>)
5.	Public Distribution System
5.1	Do people have ration card in your community? If yes, do they utilize the service of Fair price Shop? (<i>if, yes, probe for quality and availability of service, if no, probe for reasons for not utilizing the services</i>)
6.	Anganwadi Centre
6.1	Do you have an ICDS Centre (Anganwadi) in the neighbourhood? If yes, what service are available at the AWC? Do mothers and children regularly avail services from them? If no, why?
7.	Schools
7.1	Do children go to school in your community? If no, why? (<i>Probe for non-availability of school, issue pertaining to access, quality, drop-out, child labourer, etc.</i>) If yes, where does most of the children go for schooling (private/ public/ NGO/Trust school)? Why? How far is the school?

S.No	Questions and Probes
7.2	Are there school health programmes implemented in your community? If yes, how often does doctor or nurse come- are they aware of the school health programme at all?

V. NGOs in Action

S.No	Questions and Probes
1.	Are there NGOs/CBOs in your areas?
2.	What are the different interventions NGOs/ CBOs are working in your areas?
3.	Are there community groups (SHGs/ others) made by NGOs/ CBOs in your area? Pl describe since how long they exist, what different activities it does and how?



“Slum level” Vulnerability Assessment

Scoring sheet

Slum level vulnerability assessment helps in identification of the most vulnerable slums in a city, thereby, helping in prioritization of efforts and optimal use of limited resources.

To undertake this assessment, slum level primary data is collected on certain identified parameters through a group discussion with community members and participatory observation of the slum. Information on some parameters like location of the slum, condition of approach road to the slum, type of housing, drainage etc. needs to be recorded on the basis of observation while for other parameters like source of water, type of toilet facility, literacy status, child labour, service coverage etc. responses would be elicited from group discussion. If required the information obtained from the group discussions maybe verified from existing secondary sources like data from Municipal Corporation, recent surveys of the corporation, IDSP data etc.

Each of the indicators is then scored on a scale of 0-2, depicting its status where 0 stands for least vulnerable and 2 indicates most vulnerable. The ranking table is shown below:

Category	Score
Least vulnerable	0
Moderately Vulnerable	1
Most vulnerable	2

For each slum of the city, scores are then assigned on all the indicators with the help of the scoring key and the cumulative score for each slum is then calculated. Based on the cumulative score the slums can be categorized into the following three categories:

Cumulative Score	Category	Color Coding
0-19	Least vulnerable	
20-38	Moderately Vulnerable	
39-54	Most vulnerable	

Most vulnerable slums require urgent attention and indicate that their population is exposed to several health related risks.

I. Slum characteristics

1. Authorization status of the slum

- 0 Slum listed/registered
- 1 Slum un-listed/not registered (Less than 1000 households)
- 2 Slum un-listed/not registered (1000 households and above)

2. Location of the slum

- 0 Own land/Authorized quarters
- 1 Unauthorized Settlement/Land belonging to local authority/Leased Land
- 2 Homeless shelters/ Roadside/ Along Railway tracks/ Dumping ground/ Polluted water/Near Airport/Near Gas line/Under high tension wires

3. Migration status

- 0 Living in the slum for more than two years
- 1 Recent migration(less than two years)
- 2 Seasonal migration

4. Number of NGOs/CBOs operating in the slum

- 0 3ormore
- 1 1-2
- 0 None

5. Condition of approach road to the slum

- 0 All weather road in a good condition
- 1 All weather road in a bad condition
- 2 No road/Kachha road

6. Slum Map

- 0 Available & accessible/visible for public at prominent location
- 1 Available, not accessible
- 2 Not available

7. IEC: Mini/Large Hoarding and wall paintings

- 0 Available with good condition
- 1 Available with bad condition
- 2 Not available

II. Housing and basic amenities

8. Housing

- 0 Pucca/Permanent structure
- 1 Semi-pacca
- 2 Kutcha

9. Basic Amenities- Toilet

- 0 Individual toilets
- 1 Community toilet/Shared toilet
- 2 No toilet, defecation in the open by all-men, women and children

10. Basic Amenities- Water Supply

- 0 Individual piped water supply
- 1 Use community based piped water connections
- 2 No piped water supply (people use hand pumps, dug wells, tankers etc.)

11. Basic Amenities- Drainage

- 0 Underground drainage, with regular maintenance/no clogging
- 1 Drainage without concrete structure/maintenance/clogged/overflowing
- 2 No drains, clogged drains with open pits

12. Basic Amenities- Electricity

- 0 Legal electricity connections
- 1 Illegal electricity connection
- 2 No electricity connection at all

III. Socio-economic and demographic profile of the slum

13. Percentage of minority population- religious

- 0 <10%
- 1 10-49%
- 2 >50%

14. Percentage of BPL Households

- 0 <10%
- 1 11-49%
- 2 >50%

15. Percentage of population not having any identity proof

- 0 <10%
- 1 11-79%
- 2 >80%

16. Percentage of literate population in the slum (male + female)

- 0 >65%
- 1 10-64%
- 2 <10%

17. Occupational conditions

- 0 Private or government regular jobs with regular monthly wages, shopkeepers
- 1 Engaged in unskilled and semi-skilled jobs like street vendors, painters, carpenters, tailors, auto drivers, maids, security guards,
- 2 Hazardous working conditions like rag picking, sex trade, mining, recycling waste products, construction workers, manual rickshaw pullers

18. Percentage of children engaged in child labour

- 0 No child labour
- 1 0-10% children engaged in child labour
- 2 >10% children engaged in child labour

19. Slum Cleanliness

- 0 Daily cleanliness
- 1 Twice/weekly
- 2 Not cleaned

20. Community Centre in the slum

- 0 Available with good condition
- 1 Available with not so good condition
- 2 Not available

21. Govt. Programme i.e. RAY, IHSDP,NULM, JNNURM,GARIMA etc. implemented in the slum

- 0 Implemented in the slum & people are aware about the program
- 1 Implemented in the slum and people are not aware about the program
- 2 Not implemented

IV. Status of Health and Health Services

22. Number of primary healthcare facilities within the slum

- 0 3 or more health facilities
- 1 1-2 facilities
- 2 None

23. Health/Care Seeking Behavior

- 0 Take treatments from public health facility within half a km of the slum
- 1 Take treatment from public health facility more than 2km away from the slum or a private qualified provider within or outside slum
- 2 Take treatment from private unqualified providers within or outside the slum

24. Service Coverage

- 0 >80% institutional delivery
- 1 50-79% Institutional delivery
- 2 <50% institutional delivery

25. Outreach services

- 0 Frequent Outreach (Once a week)
- 1 Irregular outreach (once a month or even less)
- 2 No outreach

26. Number of functional Anganwadis within the slum

- 0 3 or more
- 1 1-2
- 2 None

27. Disease Outbreaks in the past one year

- 0 None
- 1 once
- 2 2 or more

Sl	Major indicator	No. of questions	Mark secured
I	Slum characteristic	7	
II	Housing and basic amenities	5	
III	Socio-economic and demographic profile of the slum	9	
IV	Status of health and health services	6	
		27	

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B. Demographic Details

S. No.	Questions	Response			
1.	Total population of the ward	Female	Male	Total	
2.	Number of slums in the ward	Listed	Unlisted	Total	
3.	Population pf people living in slums	Listed	Unlisted	Total	
4.	Are there migrant population in the ward	Yes <input type="checkbox"/> No <input type="checkbox"/>			
5.	If Yes, population details of migrant in the ward	Outside state	Within state	Total	
6.	Are there homeless people in the ward? If yes please mention their approx. population. (People living in pavements, under flyovers, alongside railway track etc.)	Yes <input type="checkbox"/>	Population:		
		No <input type="checkbox"/>			
7.	Please mention approximate literacy in the ward	Non-Slum Location		Slum Location	
		Male	Female	Male	Female
8.	Number of public/Govt. and Private schools in the ward	Govt.		Non-Govt.	
		III. _____		IV. _____	
9.	Number of AWC in the ward	Total	Functiona l	Non-Functional	
10.	Number of public health facilities in the ward	Primary		Secondary/tertiary	

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11.	Number of Non-Governmental health facilities in the ward	Primary	Secondary/tertiary
12.	Number of diagnostic centres/Labs with facilities like x-ray, blood and urine testing in the ward		
13.	Categorization of major disease outbreaks	Malaria.....1 Diarrhoea.....2 TB.....3 Dengue.....4 Other.....5 None.....6	
14.	Number of FLW in your ward	ANM:	ASHA: AWW:

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- 23c. Type of Work: mention the category of work majority of population does, daily wage=1, seasonal=2, Self-employed permanent=3.
24. Location of UPHC: 1=if less than half kilometre or 0=more than half kilometer
25. Location of closest AWC: 1=if less than half kilometre or 0=more than half kilometre
26. Location of closest Primary School: 1=if less than half kilometre or 0=more than half kilometre
27. Availability of Potable water: 1= there is regular availability of potable water through piped water of Govt. tankers or 0= if availability is not there or irregular.
28. Drainage facility: 1=No drainage facility, 2=proper drainage facility, 3=available but not maintained.
29. Availability of metered electricity: 1=available, 0=not available

V. Annexure : Household vulnerability assessment tool

Household Information:

- | | | |
|----|---------------------------|---|
| 1. | Address/ Location | : |
| 2. | Respondent Details | : |
| 3. | Date of Survey | : |
| 4. | Name of ASHA/ MAS Members | : |

Section I- Residential Vulnerability

1. Slum Status

- 0 Homeless shelters/roadside/railway tracks
- 1 Unauthorized Settlement/ Land belonging to local authority/Leased Land
- 2 Own land/ authorized quarters/Registered slum

2. Migration status

- 0. Seasonal/ Recent migration (Less than one year)
- 1. Living in the area from last few years (1 to 5 years)
- 2. Living in the area from more than 5 years

3. Location of the household

- 0. Hazardous location besides dumping ground, polluted water, railway line or airport
- 1. Slum dwelling with high population density, poor ventilation, limited space
- 2. Adequate ventilation and space

4. Housing

- 0. Kutchha house with weak structure, No separate space for cooking, minimal ventilation
- 1. Fairly pukka but with mud/ tin roof and non-cemented walls/brick walls with plastic or thatch roof; marginally better than earlier category
- 2. Permanent structure, ventilation present, separate space for cooking

5. Basic Services: Toilet

- 0. No toilet, defecation in the open by all-men, women and children
- 1. Use common/community toilet, do not have bath facilities
- 2. Majority have private/defined space for bathing and toileting

6. Basic Services: Water

- 0. No piped water supply, use community taps/ tankers etc., irregular supply
- 1. Use community taps or hand pumps, have regular water supply
- 2. Have individual water pipe

7. Basic Services: Drainage

- 0. No drains, clogged drains with open pits
- 1. Open drains-kutchha or pucca
- Underground connected drains and paved roads

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8. Electricity

- 0. No electricity connection at all
- 1. Illegal electricity connection
- 2. Metered individual electricity connection

Section II- Social Vulnerability

9. Type of Family

- 0. Child Headed household/Women headed household/Single parent family/ Single male
- 1. Nuclear Family with only one earning member with informal employment
- 2. Joint family with one earning member with regular income or more than one earning member with regular or irregular incomes

10. Social Support Mechanisms

- 0. Living far from the family, no social support available at all
- 1. Living alone in the area but people from your community are living nearby
- 2. Living with family

11. Disability status

- 0. Member with chronic disability /debilitating illness like TB, AIDS, Cancer, Kidney failure
- 1. Household member suffering from mild impairment but functional
- 2. No member with disability

12. Identity Proof

- 0. Do not have any documents
- 1. Have at-least one legal documents (BPL Card, Ration card, voter ID, Aadhar Card etc.)
- 2. Have all the necessary documents

13. Episodes of harassment by any groups in power

- 0. Very often
- 1. Rarely
- 2. Not at all

14. Nutrition

- 0. Children are not enrolled in Anganwadi centre (AWC) and no access to PDS ration
- 1. Government ration not available but children are enrolled in Anganwadi centre
- 2. Children enrolled in AWC and access to PDS/Government ration

15. Education: Children and Adults

- 0. Children in the household do not attend school and adults are illiterate
- 1. Young children going to school but drop out in other children, adults with minimum/functional literacy
- 2. All children pursuing elementary education and adults also have minimum elementary condition

Section III- Occupational Vulnerability

16. Employment Pattern

- 0. Daily wage earner with irregular pattern, daily wages below Rs 150
- 1. Daily wage earner with regular employment, daily wages up to 150-500
- 2. Regular employment or irregular employment with daily wages more than Rs 500

17. Occupational Conditions

- 0. Hazardous working conditions like rag picking, sex trade, mining, recycling waste collectors, construction workers, engaged in bidi making, matchbox making
- 1. Engaged in unskilled and semi-skilled jobs like street vendors, casual labourers, domestic workers
- 2. Private or government regular job with monthly wages, shopkeepers

Section IV- Health Related Vulnerability

18. Proximity to the health facility

- 0. more than 2 kilometres
- 1. within the range of 2 km
- 2. Less than 1 km

19. Status of Health and Health Services

- 0. Reported history of maternal death / child death/death due to TB, Malaria or other infectious diseases in last five years
- 1. Poor health status of the family/individual e.g. Reported cases of diarrhea, TB or any other disease
- 2. No case of illness at the time of survey

20. ANM visit

- 0. Never
- 1. Once in 3 months
- 2. Monthly

21. Health Seeking

- 0. Do not take treatment in case of illness
- 1. Go to local practitioners/quacks/stores
- 2. Go to government facilities/registered private doctor

Cumulative Scoring

0-15= Most vulnerable

16-30= Highly Vulnerable

31-42= Vulnerable

City Level Vulnerability Mapping under NUHM-Draft User's Guide
Section V- Categorization

Tick if you find the households/families falling in any of these categories:

- Rag Picker
- Rickshaw puller
- Head loaders
- Construction workers
- Daily wage labourers
- Homeless
- People involved in Begging
- Domestic workers
- Elderly poor
- Widow/deserted women
- Women/child headed household
- Differently Abled
- Debilitating illnesses- HIV/AIDS, TB, Leprosy etc.
- Sex workers
- Street Children
- Trans-genders
- Sanitary workers
- People with mental illness
- People living in institutions like night shelters, homeless recovery shelters, beggars home, leprosy homes
- Any other, Please specify _____

List of documents

The city/district team to collect information/data and to consolidate it. The list of required documents are given below ;

1. List of slums (registered and unregistered)
2. List of health facilities (all government and private-registered under Clinical Establishment Act)
3. List of the medicine shops in the city
4. List of the pathology units in the city
5. List of Anganwadi centers
6. List of the primary and secondary schools in the city/town
7. Operational area of ANMs (Ward, slums, households and population)
8. Catchment area of ASHA (Slum, households list and population)
9. Catchment area of MAS (slum, households list and population)
10. Location of UHND sites with tagged area and population
11. Slum level Vulnerability assessment in a prescribed format and analysis & report
12. Household level vulnerability assessment in a prescribed format and analysis & report
13. Preparation of city level Vulnerability assessment report
14. List of targeted intervention project under OSACS
15. List of schemes and programmes implemented by different deptt.
16. List of ward wise Sanitation (IHL, Shared toilet, Community toilet)
17. List of Vending market in the city/town
18. List of total household having the Drinking Water facilities (Pipe water, Tube well, dug well. Others)
19. City profile as per the format
20. Ward profile as per the format
21. Slum profile as per the format
22. UPHC profile as per the format
23. WKS profile as per the format
24. MAS profile as per the format
25. MAS health resource map
26. Preparation of Slum map
27. City wise epidemiology data on various diseases

Deliverables of planning and mapping

SI	Deliverables	Responsibility
1	Preparation/updation of city map and GIS map	CPMU/DPMU Team
2	Preparation/updation of UCHC map and GIS map	CPMU Team
3	Preparation/updation of UPHC map and GIS map	CPMU/DPMU Team, UPHC team- MO (I/C) PHM/DAA
4	Preparation/updation of ANM operational area map	UPHC team- PHM/DAA/ANM In case non availability of UPHC the DPMU team/ANM
5	Ward level vulnerability assessment & report	UPHC team- PHM/DAA/ANM In case non availability of UPHC, the DPMU team/ANM
6	Slum level vulnerability assessment, slum map and report	UPHC team- PHM/DAA/ANM/ASHA/MAS In case non availability of UPHC, the DPMU team/ ANM/ ASHA/ MAS
7	Household level vulnerability assessment, map and report	UPHC team- PHM/DAA/ANM In case non availability of UPHC, the DPMU team/ANM/ASHA/ MAS
8	Preparation of city level Vulnerability assessment report	CPMU/DPMU
9	Catchment area of ASHA (Slum, households list and population) & map	UPHC team- PHM/DAA/ANM In case non availability of UPHC, the DPMU team/ANM/ASHA
10	Catchment area of MAS (households list and population) & map	
11	Preparation/updation of MAS resource map	
12	List of information to be collected <ol style="list-style-type: none"> 1. List of slums (registered and unregistered) 2. List of health facilities (all Government and private-registered under Clinical Establishment Act) 3. List of the medicine shops in the city 4. List of the pathology units in the city 5. List of Anganwadi centers in the city/town 6. List of the primary and secondary schools in the city/town 7. Location of UHND sites with tagged area and population 8. List of targeted intervention project under OSACS 9. List of schemes and programmes implemented by different deptt. 	DPMU/CPMU

City Level Vulnerability Mapping under NUHM-Draft User's Guide

	<ul style="list-style-type: none"> 10. List of vending market in the city/town 11. City profile 12. City wise epidemiology data on various diseases 	
13	<p>Preparation and updation of profile</p> <ul style="list-style-type: none"> 1. UPHC profile 2. Ward profile 3. Slum profile 4. WKS profile 5. MAS profile 	<p>UPHC team- PHM/DAA/ANM/ASHA</p> <p>In case non availability of UPHC, the DPMU team/ANM/ASHA/ MAS</p>
14	<ul style="list-style-type: none"> 28. List of ward wise Sanitation (IHL, Shared toilet, Community toilet) 29. List of total household having the Drinking Water facilities (Pipe water, Tube well, dug well. Others) 	DPMU/CPMU

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