SUMMER INTERNSHIP PROGRAM

At

(IIHMR UNIVERSITY, JAIPUR)

12th May 2025 – 21st July 2025

A REPORT BY

Shweta Thakur

MBA in Hospital and Health Management

IIHMR-U/01/2024-26/2092

2024-26

Under the Mentorship of

Dr. Arindam Das

Professor

IIHMR University, Jaipur

IIHMR UNIVERSITY

INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Ms. Shweta Thakur** has successfully completed her summer internship at IIHMR University, Jaipur from **12-May-2025 to 21-July-2025**.

During the internship period, she was actively involved in data collection and analysis related to urban slum conditions, particularly focusing on housing types, access to basic facilities, and key challenges faced by residents. She contributed to preparing comparative graphical reports for different field areas and participated in compiling insightful documentation that supported the broader project goals.

The overall performance shown by her during the internship period was Excellent. She demonstrated professionalism, analytical skills, and a sincere approach toward her assigned responsibilities. This certificate is being issued to meet the academic requirements of IIHMR University.

Authorized Signatory

Arindam Das, PhD
Professor
IIHMR University, Jaipur

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141-3924700, 2791431- 32, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

IIHMR UNIVERSITY

IIHMR University Faculty Mentor Approval

This is to certify that **Shweta Thakur** of academic year 2024-26 of **Institute of Health Management Research** has prepared a poster with respect to her summer internship held during May-July 2025.

She has carried out work as per the guidelines. Her poster is approved for presentation.

Arindam Das.

Date: 25th July 2025

(Signature of Faculty Mentor)

Name: Dr. Arindam Das

Designation: Professor

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141-3924700, 2791431- 32, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

Understanding Urban Slum Vulnerabilities: A Community Based Study on Heat Related Health Risks and Access to Basic Services in Jaipur

Prepared by- Shweta Thakur
MBA- HM 29
Roll no. 2092

Faculty mentor- Dr. Arindam Das
Organization mentor-: Dr Arindam Das

ABOUT ORGANISATION

IIHMR University, Jaipur, was established in 1984 and is a prominent institution in the field of health and hospital administration. It is recognized for its contributions to public health research, education, and training.

VISION

To become a world-class higher education institution by promoting education and research for the betterment of society

MISSION

IIHMR University aims to improve health standards through effective management of healthcare and related programs by focusing on education, research, training, consulting, and global collaboration

ORGANISATION STRUCTURE

BOARD OF MANAGEMENT

↓

PRESIDENT

(HEAD OF THE UNIVERSITY)

↓

DEANS

(school of IIHMR, school of pharmaceutical management, school of development studies, SD Gupta school of public health, school of digital health)

ADMINISTRATIVE AND SUPPORT UNITS

(training, admissions and operations, finance, administration, human resource, IT)

↓

FACULTY AND RESEARCH TEAM

OBJECTIVE

To evaluate heat-related health risks and access to basic services among slum communities in Jaipur.

METHODOLOGY

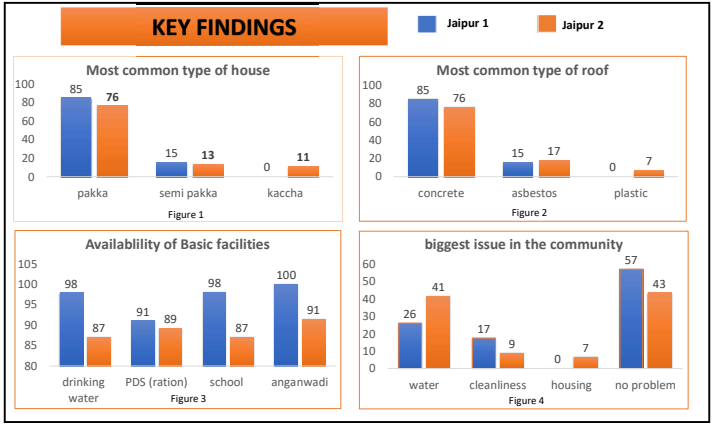
DESIGN : Systematic Random Sampling for Slum Selection

SAMPLE SIZE : 92 Slums OF JAIPUR 1 AND 2

TOOL : 127 QUES (KOBOTOOL BOX)

DATA ANALYSIS: MICROSOFT EXCEL

KEY FINDINGS



IIHMR Learnings (Theory)	Field Reality (Practice)
Environmental factors affect health	Poor housing increased heat-related risks
Policy awareness is key to resilience	Communities unaware of existing schemes
Structured surveys ensure quality data	Used 127-question tool; adapted to field challenges.
Digital tools enhance data collection, , manual data entry not required	KoboToolbox improved accuracy but had issues like form freezing.
Communication must be culturally tailored	Local language and norms ensured better responses
Fieldwork builds public health skills	Improved empathy, critical thinking, and planning

STRENGTH

- Real-time field exposure to vulnerable communities
- Applied digital tools effectively
- Bridged theory with practical insights on environmental and health risks

WEAKNESS

- App glitches during data collection
- Low community awareness on health schemes
- Non-responsiveness in some slum areas

OPPORTUNITY

- Scope to suggest impactful, community-centered interventions.
- Scope for improving health policy implementation

THREAT

- Gaps in trust toward public health systems
- Heat-related illnesses due to poor housing and infrastructure
- Risk of public health crisis from water and sanitation issues

TOWS

SO Strategies
- Use digital tools and field knowledge to support local policy implementation.
- Collaborate with SHGs for targeted IEC

ST Strategies
- Apply community-tailored communication to overcome trust gaps.
- Use real-time data to address infrastructure-related risks

WO Strategies
- Conduct mock surveys and pilot testing with SHG support.
- Leverage government interest in climate health to improve preparation.

WT Strategies
- Simplify tools for low-literacy users.
- Train staff to manage cultural/language challenges.
- Improve tech support before fieldwork.

CHALLENGES

- Technical Glitches in KOBO Application
- Community Reluctance
- Time Constraints
- Field Conditions
- Policy Disconnect

MAJOR LEARNINGS

- Gained hands-on experience in urban slum public health.
- Noted gap between health schemes and community awareness.
- Enhanced skills in digital data tools (KoboToolbox, Excel).
- Built problem-solving, adaptability, and leadership skills
- Observed how environment worsens health risks.
- Linked classroom learning with real-world public health challenges

SUGGESTIONS

- Regularly update survey tools to avoid technical issues
- Use mock interviews and pilots for better data quality
- Boost IEC efforts with community leader involvement.
- Collaborate with SHGs, CBOs, and ASHA workers
- Conduct community heat risk mapping
- Develop a dashboard for progress tracking and reporting

Weekly Reporting

Name of the Organisation: IIHMR JAIPUR (IEG collaborated with IIHMR JAIPUR)

Area/ Department/ Project of Summer Internship Program: Economic and Health Impact assessment of Heat adaptation Action: case studies from India

Name of the Student: Shweta Thakur

Roll no: 2092 **Stream:** MBA Hospital and Health Management

Week no: 1 **From:** 14-05-2025 **to** 17- 05-2025

Activity Done	**1.** Training was conducted, which began with a presentation telling about the topic in detail. **2.** It included the objectives and importance of this project **3.** We reviewed a 127-question survey tool, section by section and made necessary corrections which were needed to make the process smooth. **4.** We visited slum areas to conduct a pilot survey. This included testing the questionnaire in real field conditions. **5.** A feedback session was conducted after pilot survey to discuss about difficulties faced on field and solve them accordingly. **6.** got an insight about the effect of roof material on indoor temp . e.g. : asbestos roofing increases the temp inside the house thus govt is asking to replace such roofing. **7.** Mock interviews conducted during training to simulate real field conditions.
Linking theory (Classroom learning) with practice at your organization	**1.** In classroom we learn about ideal research methods, and how things are done but in real world practice we get to experience the ground reality of it. **2.** It gives an exposure to the following: • how training is provided • how to introduce oneself properly to respondents

	• understanding the flow of questionnaire and the 3 target groups : outdoor worker, children, and elderly people. • learnt about the importance of sequencing the questions in an order that sensitive questions like about any deaths were being included at last.
Gaps identified on the working area.	**1.** App glitch hindered the smooth functioning of the process **2.** Respondents were unaware about it thus there was a need for prior community sensitization.
Suggestions for improvement	**1.** Optimize the app interphase and take necessary measures to resolve the issue. **2.** Use local leaders and create awareness about the survey .
Plan for the next week	**1.** To visit slums and talk to local leaders about the project. **2.** Comment on the implementation of household data collection at designated slum areas. **3.** Begin training and use of qualitative tool and explore its integration in the process.

Week no: 2 **From:** 18-05-2025 **to** 23- 05-2025

Activity Done	**1.** May 18: visited various slums in Jaipur and contacted the associated ward councillors to discuss about the project's objective. **2.** May 19: Prepared the questionnaire about the qualitative analysis using kobotoolbox. It is done to analyse living circumstances and health of the people living in slum. **3.** May 20: conducted survey in 5 households in sitaram nagar to get an insight about the living conditions and health issues of those people. **4.** May 21: conducted survey in residences in taaron ki koot, surya nagar and found that majorly houses over there are semi pucca and kaccha which tells us about different housing stability. **5.** May 22: this day visited hariyali colony, where we saw rapid urbanization. **6.** May 23: surveyed Mansingh pura and identified various problems which people are facing because of heat.
Linking theory (Classroom learning) with practice at your organisation	**1.** Applied theoretical knowledge of urban expansion and slum settlements to real world scenario and observed how urbanization has taken place. **2.** During study of research methodology as a subject, questionnaire and structured interviews were studied and in real scenarios they were used for data collection. **3.** While studying we discussed about social determinants of health and during field practice we identified people in slum having different ailments.

Gaps identified on the working area.	**1.** Many households lack access to basic amenities like proper roofing, many households had asbestos as the roof which led to increase in temp inside household. **2.** Residents face health issues, including heat-related illnesses, due to inadequate shelter. **3.** People are quite unaware about the heat action plan in their city.
Suggestions for improvement	**1.** Advocate for targeted infrastructure projects to improve housing conditions in slum areas. **2.** there should be awareness programs and people should be made aware about the heat action plan and how to protect themselves from the heat waves.
Plan for the next week	**1.** conduct surveys at different psu's **2.** analyse the findings of qualitative data to find the pattern of it. **3.** Read different articles and conduct review of them **4.** With respect to the data that has been found propose solutions that can be used to bring a change in the society.

Week no: 3 **From:** 26-05-2025 **to** 31- 05-2025

Activity Done	**1.** Community health surveys were conducted in Maansinghpura, Barh Devariya, Rajiv Nagar, Mehendra Nagar, Hari Marg, and Gandhi Grah. **2.** Data was collected on common health conditions in the questioned group, with an emphasis on heat illness. **3.** Participated in a review meeting to receive comments on survey questionnaire mistakes. **4.** Corrected discovered issues in the survey instrument to enhance data collecting quality.
Linking theory (Classroom learning) with practice at your organisation	**1.** I applied what I learned in class about public health survey methodologies to real-world community settings. **2.** To better understand illness trends in slum regions, we used epidemiology principles and data gathering methodologies covered in class. **3.** This includes gathering basic information about who is impacted, what disease they have, and when they become sick. **4.** Skills in health communication and community engagement have been implemented to improve data collection efficiency.
Gaps identified on the working area.	**1.** Many households lack access to basic amenities like proper roofing, many households had asbestos as the roof which led to increase in temp inside household. **2.** Residents face health issues, including heat-related illnesses, due to inadequate shelter. **3.** People are quite unaware about the heat action plan in their city.

	4. Lack of awareness among residents made it challenging to get accurate health history.
Suggestions for improvement	**1.** Develop simple, local-language-based educational materials to raise awareness before surveys. **2.** Schedule follow-up visits in areas where responses were insufficient or unclear. **3.** there should be awareness programs and people should be made aware about the heat action plan and how to protect themselves from the heat waves.
Plan for the next week	**1.** Conduct a literature review focusing on health conditions in slum populations to strengthen background understanding. **2.** conduct surveys at different psu's and analyse the findings of qualitative data to find the pattern of it. **3.** With respect to the data that has been found propose solutions that can be used to bring a change in the society. **4.** Analyze preliminary data from the current surveys to identify trends and patterns in Heat disease prevalence.

Week no: 4 **From:** 02-06-2025 **to** 7- 06-2025

Activity Done	**1.** Conducted health and living condition surveys in Manoharpura and Jhalana Bai Ki Kothi majorly focussing on people have have heat related illness. **2.** Interacted with a variety of residents to understand the challenges they face, like people living under asbestos sheds were facing heat problems and made them uncomfortable in their households. **3.** Carried out a basic review of the slum areas, focusing on health, hygiene, housing, and general living conditions. **4.** Attended a meeting to analyze the number of people suffering from heat-related illnesses (like dehydration, heat stroke) and chronic conditions (e.g., diabetes, hypertension). **5.** Discussed survey findings and community health challenges in the meeting to improve future data collection and intervention strategies.
Linking theory (Classroom learning) with practice at your organization	**1.** I applied what I learned in class about public health survey methodologies to real-world community settings. **2.** Applied classroom concepts of social determinants of health to understand how poor housing and environmental conditions affect health. E.g.: Poor housing (e.g., asbestos sheds, overcrowding) can lead to respiratory issues, low-income limits access to nutritious food, clean water, healthcare, and education, which affects health, Low literacy levels often lead to a lack of awareness about disease prevention and hygiene.
Gaps identified on the working area.	**1.** Many households lack access to basic amenities like proper roofing, many households had asbestos as the roof which led to increase in temp inside household. **2.** Severe water scarcity—some households reported no drinking water supply since March, leading to reliance on expensive tanker or bottled water.

	3. Residents face health issues, including heat-related illnesses, due to inadequate shelter. **4.** People are quite unaware about the heat action plan in their city.
Suggestions for improvement	**1.** Develop simple, local-language-based educational materials to raise awareness before surveys. **2.** Schedule follow-up visits in areas where responses were insufficient or unclear. **3.** Coordinate with local authorities to address water scarcity through community tank installation or improved pipeline access. **4.** Recommend organizing a health and hygiene camp that includes water-related disease prevention. **5.** Conduct awareness drives about safe water storage and hygiene practices. **6.** there should be awareness programs and people should be made aware about the heat action plan and how to protect themselves from the heat waves. **7.** Suggest long-term planning with NGOs or government agencies for housing upgrades and asbestos removal.
Plan for the next week	**1.** Conduct a literature review on the impact of water scarcity and asbestos housing on health in slum populations. **2.** Plan and conduct surveys in new slum areas, focusing on water, sanitation, and respiratory health issues. **3.** Begin preliminary data analysis of findings from Manoharpura and Jhalana Bai Ki Kothi to prepare a report or presentation for further action.

Week no: 5 **From:** 09-06-2025 **to** 14- 06-2025

Activity Done	**1.** Conducted health and living condition surveys in Jhalana Bai Ki Kothi, RIICO Audyogik kacchi basti, amarnath ki bagichi, madari colony and barodia Basti majorly focussing on people who have heat related illness. **2.** Engaged with residents to understand challenges like heat discomfort in asbestos sheds and poor ventilation in concrete-roofed homes. **3.** Attended a meeting to analyse the number of people suffering from heat-related illnesses (like dehydration, heat stroke) and chronic conditions (e.g., diabetes, hypertension). **4.** Studied about what all study has been done so far on slums: social and economic issues, physical aspects and computer-based models. Under computer-based models 3 types were studied: cellular automata, agent-based models and scenario analysis.
Linking theory (Classroom learning) with practice at your organisation	**1.** Classroom lessons on how poverty, lack of infrastructure, and environmental factors affect health outcomes were directly observed and analyzed in the slum settings. **2.** Theoretical knowledge of environmental health was applied by documenting heat-related illnesses in vulnerable slum populations.
Gaps identified on the working area.	**1.** In madari colony, there is a severe water problem and people are falling sick because of that. **2.** People are quite unaware about the heat action plan in their city.
Suggestions for improvement	**1.** Develop simple, local-language-based educational materials to raise awareness before surveys.

	2. Schedule follow-up visits in areas where responses were insufficient or unclear. **3.** Conduct localized health camps and awareness drives focusing on heat illness prevention, hydration, and first-aid measures **4.** Conduct awareness drives about safe water storage and hygiene practices. **5.** people should be made aware about the heat action plan as no one till date has any information about the same. **6.** Suggest long-term planning with NGOs or government agencies for housing upgrades and asbestos removal.
Plan for the next week	**1.** Conduct a literature review on the overview of the slums, covering the computer-based models that are used now a days to conduct the study **2.** Plan and conduct surveys in new slum areas, which is now Jaipur 1 that is heritage side will be covered, thus focusing on water, sanitation, and respiratory health issues.

Week no: 6 **From:** 16-06-2025 **to** 21- 06-2025

Activity Done	**1.** Conducted structured and semi-structured surveys across the four informal settlements of chandrashekhar ki bagichi, JP colony , and chandmari bhatta basti. **2.** Interacted with residents to understand household demographics, sanitation practices, health access, and environmental conditions. **3.** Engaged with residents to understand challenges like heat discomfort in asbestos sheds and poor ventilation in concrete-roofed homes. **4.** Studying about what all study has been done so far on slums : social and economic issues, physical aspects and computer-based models. Under computer-based models 3 types were studied: cellular automata, agent-based models and scenario analysis. **5.** Identified and noted use of computer-based agents used by local authorities or NGOs for slum profiling and data management.
Linking theory (Classroom learning) with practice at your organization	**1.** Classroom lessons on how poverty, lack of infrastructure, and environmental factors affect health outcomes were directly observed and analyzed in the slum settings. **2.** Theoretical knowledge of environmental health was applied by documenting heat-related illnesses in vulnerable slum populations.
Gaps identified on the working area.	**1.** Limited awareness among slum residents about government plans . **2.** People are quite unaware about the heat action plan in their city.
Suggestions for improvement	**1.** Conduct localized health camps and awareness drives focusing on heat illness prevention, hydration, and first-aid measures

	2. people should be made aware about the heating action plan as no one till date has any information about the same. **3.** Suggest long-term planning with NGOs or government agencies for housing upgrades and asbestos removal.
Plan for the next week	**1.** Conduct a literature review on the overview of the slums, covering the computer-based models that are used now a days to conduct the study **2.** Plan and conduct surveys in new slum areas, that is now Jaipur 1 that is heritage side will be covered ,thus focusing on water, sanitation, and respiratory health issues. **3.** Start the analysis of the data that has been collected through survey.

Week no: 7 From: 23-06-2025 to 28- 06-2025

Activity Done	**1.** Conducted health and living condition surveys in vijay nagar, shaheed indra jyoti nagar B, Sanjay nagar and bapu nagar majorly focussing on people who have heat related illness. **2.** Engaged with residents to understand challenges like heat discomfort in asbestos sheds and poor ventilation in concrete-roofed homes. **3.** Attended a meeting to analyse the number of people suffering from heat-related illnesses and chronic conditions. **4.** Wrote literature review about slum overview.
Linking theory (Classroom learning) with practice at your organisation	**1.** Classroom concepts regarding the impact of poverty, inadequate infrastructure, and environmental determinants on health outcomes were practically observed and critically analyzed within slum settings. **2.** Theoretical knowledge of environmental health was effectively translated into practice through the documentation and analysis of heat-related illnesses among vulnerable populations in slum areas.
Gaps identified on the working area.	**1.** People are quite unaware about the heat action plan in their city. **2.** Cleanliness emerged as a significant issue in the area
Suggestions for improvement	**1.** Develop simple, local-language-based educational materials to raise awareness before surveys. **2.** Schedule follow-up visits in areas where responses

	were insufficient or unclear. **3.** Conduct localized health camps and awareness drives focusing on heat illness prevention, hydration, and first-aid measures **4.** people should be made aware about the heat action plan as no one till date has any information about the same.
Plan for the next week	**1.** A comprehensive analysis of the collected data will be conducted to derive meaningful insights and identify key patterns, trends, and correlations relevant to the study objectives.

Week no: 8 **From:** 30-06-2025 **to** 05- 07-2025

Activity Done	**1.** Conducted health and living condition surveys in hamid nagar, mukhya sadola and ashokpura Kanchi and hathroi fort majorly focussing on people who have heat related illness. **2.** Engaged with residents to understand challenges like heat discomfort in asbestos sheds and poor ventilation in concrete-roofed homes. **3.** Attended a meeting to analyse the number of people suffering from heat-related illnesses and chronic conditions. **4.** On Sunday did a final meeting where overall slum wherever the interview was done was analyzed
Linking theory (Classroom learning) with practice at your organisation	**1.** Classroom concepts on poverty, poor infrastructure, and environmental health were critically applied and observed in slum settings. **2.** Theoretical knowledge was practically applied by documenting and analyzing heat-related illnesses in vulnerable slum populations.
Gaps identified on the working area.	**1.** Overall, all the people interviewed were quite unaware about the heat action plan. **2.** Cleanliness emerged as a significant issue in the area and water issues were also a major problem in hathroi fort
Suggestions for improvement	**1.** Schedule follow-up visits in areas where responses were insufficient or unclear. **2.** there should be awareness programs and people

	should be made aware about the heat action plan and how to protect themselves from the heat waves.
Plan for the next week	**1.** A comprehensive analysis of the collected data will be conducted to derive meaningful insights and identify key patterns, trends, and correlations relevant to the study objectives. **2.** Now article writing and poster making would be focussed on

Week no: 9 **From:** 07-07-2025 **to** 12- 07-2025

Activity Done	**1.** I spent this week performing a literature analysis on slum conditions, which included topics like hygiene, availability to essential utilities (electricity, water, and sanitation), settlement patterns, and educational infrastructure. **2.** After that, I worked with the information gathered using the KoBoToolbox platform, structuring it in Microsoft Excel so that it could be examined further. **3.** Details from the Jaipur 1 and Jaipur 2 slum clusters were included in the databases. I determined the percentage distribution of important metrics, including: number of well-built homes, Accessibility of Anganwadi centres and schools, Sanitation and clean drinking water accessibility, Identifying typical problems that locals deal with, such as messy surroundings and erratic water supplies, The most popular schools in the corresponding slum regions that kids attend **4.** Additionally, I worked on compiling and drafting content for my internship report, which is to be submitted soon.
Linking theory (Classroom learning) with practice at your organisation	**1.** The exercises this week made it easier to relate the theoretical knowledge from public policy, slum development, and urban health classes to real-world data analysis and field-based problems. **2.** Interpreting data from the actual world helped to clarify socioeconomic determinants of health and community health principles.

	3. The use of Excel for data cleaning and analysis helped to close the gap between managing public health data in real time and theoretical statistics.
Gaps identified on the working area.	1. Despite being close to cities, many families in both Jaipur clusters do not have proper access to clean water and sanitary facilities. 2. There is a significant gap in waste disposal systems, which makes living conditions unsanitary.
Suggestions for improvement	1. implementing municipal and non-governmental cooperation to implement community-based water management initiatives and sanitation campaigns. 2. encouraging neighbourhood cleanliness awareness initiatives and making sure that regular garbage collection services are provided.
Plan for the next week	1. Start the data analysis process by creating cross-tabulations for important variables and performing statistical tests using SPSS. 2. Continue drafting and organizing the report while including the qualitative and quantitative data. 3. For the report parts, create visual aids like graphs and charts. 4. Complete suggestions based on field observations and SPSS results.

Week no: 10 From: 14-07-2025 to 19- 07-2025

Activity Done	**1.** Data from Jaipur 1 and Jaipur 2 were analysed with the help of graphs made for each of the situation like, types of houses, availability of basic facilities, problems faced by people over there etc. **2.** Comparison between both parts of Jaipur 1 and 2 was done and was analysed through graphs. **3.** Additionally, I worked on compiling and drafting content for my internship report, which is to be submitted soon. **4.** Plagiarism and ai were checked and work were done to reduce them.
Linking theory (Classroom learning) with practice at your organisation	**1.** This week's activities made it simpler to connect the theoretical information learned in classes on urban health, slum development, and public policy to practical data analysis and field-based issues. **2.** Socioeconomic determinants of health and community health principles were clarified through the interpretation of real-world data. **3.** By using Excel for data cleaning and analysis, the gap between theoretical statistics and real-time public health data management was reduced.
Gaps identified on the working area.	**1.** Inconsistent availability of detailed demographic data in some records. **2.** There is a significant gap in waste disposal systems, which makes living conditions unsanitary. **3.** Water was a main problem in major areas

Suggestions for improvement	**1.** implementing municipal and non-governmental cooperation to implement community-based water management initiatives and sanitation campaigns. **2.** encouraging neighbourhood cleanliness awareness initiatives and making sure that regular garbage collection services are provided.
Plan for the next week	**1.** Complete the internship report in its entirety, emphasizing analysis, conclusions, and suggestions. **2.** Create and submit the internship poster, including the methodology, finalized SWOT, TOWS, and a graphic depiction of the results. **3.** Include the mentor's suggestions in the completed report and presentation. **4.** Before submitting, make sure the appendix sections, formatting, and citations are correct.

Signature of the Student:

Approved by the IIHMR University's Mentor

Compiled Report

Name of the Organization: IIHMR UNIVERSITY

Area/ Department/ Project of Summer Internship Program: Understanding Urban Slum Vulnerabilities: A Community Based Study on Heat Related Health Risks and Access to Basic Services in Jaipur

Name of the Student: Shweta Thakur

Roll no: IIHMR-U/01/2024-26/2092

Stream: MBA in Hospital and Health Management

Activity Done	**"Understanding Urban Slum Vulnerabilities: A Community Based Study on Heat Related Health Risks and Access to Basic Services in Jaipur"** **6. TRAINING AND ORIENTATION**: The internship started with one week of intense training. The orientation covered the objective and all the necessary details of the project. This mainly included amenities that were present in the slum and also the impact of heat on their livelihood and health. A key part of training involved a detailed survey consisting of 127 questions that is designed to assess living conditions, health symptoms and community awareness of government initiative like heat action plan. To ensure that we were ready for field work, mock interviews were conducted along with pilot survey to find the problems which could arise so that before the actual field work it could be refined **7. FIELD WORK AND DATA COLLECTION:** **Sample size: 92** **42 slums of Jaipur 1 and 42 slums of Jaipur 2** • The goal was to ascertain how slum dwellers' lives and how their health was being affected by excessive heat. Identified the existing heat related illness like heatstroke, dehydration as well as investigating the defects in residential buildings,

especially focusing those with asbestos roof.

- Data was collected using KoboToolbox, a mobile based digital platform through which surveys were conducted in a structured manner. The responses were then imported into excel for further interpretation.

8. EVALUATION OF ESSENTIAL AMENITIES:

The study looked at housing conditions, problems that people in slum settlements had and availability of basic facilities. The kind and quality of housing, how easy it is to go to schools, Anganwadi's, and ration stores (PDS), as well as the availability of clean drinking water, personal bathrooms, and hygienic conditions were all very important.

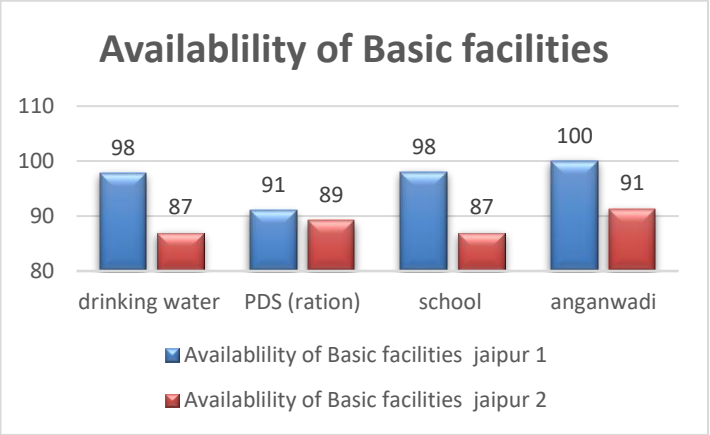


Figure 1: availability of basic services

9. INSIGHTS FROM WEEKLY REVIEW MEETINGS:

Weekly review meetings were held to talk about observations, fix problems in the field, and keep track of progress. Among the primary issues that persisted were:

- The KoboToolbox software didn't work well, which made it hard to get data.
- Most slum inhabitants were unaware of the Heat Action Plan and other public health initiatives.
- Indoor heat was caused by substandard houses that frequently had asbestos roofing and inadequate ventilation.

10. LITERATURE REVIEW:

- A full study of the literature was done to learn about slum dynamics, environmental health hazards, and modern strategies for adapting to heat. The evaluation helped find important areas of slum study, such as:
- Types of housing and urban poverty
- Things in the environment that affect health
- .Inadequate awareness and application of policies. Field observations and literary insights were combined to present a complete picture.

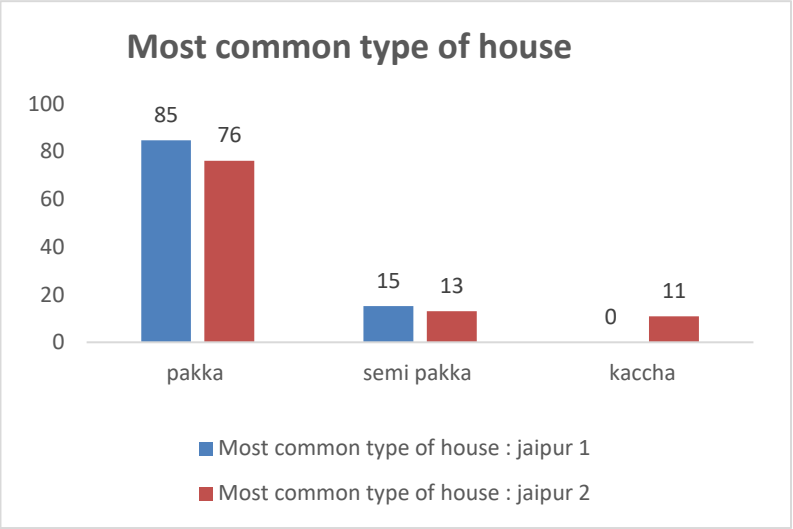


Figure 2: most common type of house present

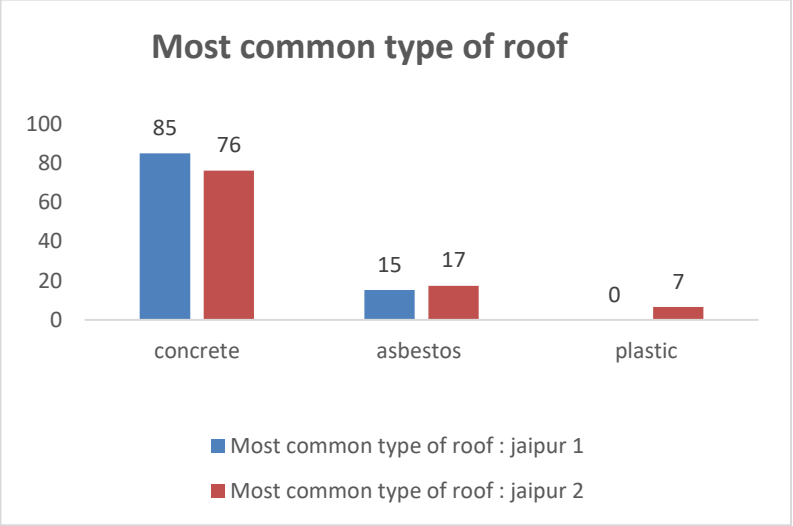


Figure 3: most common type of roof present

Linking theory (Classroom learning) with practice at your organisation	This hands-on experience helped me to use what I have learnt in the classroom in real life and gave me a chance to fully understand how to plan, evaluate, and carry out health interventions in communities that are most vulnerable to climate change and extreme heat events. **1. ENVIRONMENTAL AND PUBLIC HEALTH CONCEPTS :** The initiative looked at how housing conditions in slums affect people's health. Field observations show that asbestos roofs, poor ventilation, and limited access to water made heat stress, dehydration, and other health risks much worse. These results were quite similar to ideas from environmental and public health research, notably the idea that social and environmental variables are very important in predicting health risks. **2. HEALTH POLICY AWARENESS :** The initiative looked at how housing conditions in slums affect people's health. Field observations show that asbestos roofs, poor ventilation, and limited access to water made heat stress, dehydration, and other health risks much worse. These results were quite similar to ideas from environmental and public health research, notably the idea that social and environmental variables are very important in predicting health risks. **3. HEALTH SURVEY :** The organized use of a 127-question survey instrument, intended to gather information on health, livelihood, housing, and awareness aspects, was extensively trained. Through this exercise, knowledge of biostatistics and research methodology—including sample strategies, sensitive question sequencing, research ethics, data consistency, and tool improvement—could be directly applied. In addition to complementing our training in digital health technologies, the usage of KoboTool box as a digital data gathering platform improved data efficiency, accuracy, and real-time validation. **4. HEALTH COMMUNICATION:** When engaging with slum people, key elements of health communication theory and behavioural change models were used. Community sensitization, rapport-building, local language adaptation, and delicate cultural norm navigation were essential for obtaining reliable data. A key idea covered in health

	promotion and IEC (information, education, and communication) training, these activities illustrated the basic importance of tailoring health messaging and interventions according to sociodemographic situation. • In addition to providing observational learning, this internship enabled the active application of academic skills in practical contexts. It improved critical thinking, developed empathy for the community, and developed the operational abilities required of public health and healthcare management. Developing a professional perspective on integrated health planning has been made possible by the process of detecting systemic gaps, comprehending the socio-ecological context of urban health, and proposing well-established, community-centered treatments.
Gaps identified in the working area.	**1. LACK OF AWARENESS ABOUT PUBLIC HEALTH PROGRAMS:** Despite the existence of government initiatives such as the Heat Action Plan, slum dwellers demonstrated a notable lack of comprehension. Most respondents had never heard of official preventive guidelines, heat preparedness, or its symptoms. This ignorance threatens the community's ability to proactively address health risks associated with climate change. **2. SUBSTANDARD HOUSING :** In a lot of slum areas, the housing was in bad shape. There were a lot of problems with the roofs, the ventilation, the number of people living there, and the materials used to build the houses. These kinds of buildings not only don't keep people cool during heat waves, but they also make people more likely to get sick from the heat and have long-term breathing problems. **3. INSUFFICIENT WATER SUPPLY:** Access to clean and reliable drinking water became a big issue in many slum areas. Even though many homes had connections to the city water supply, it was not always available, and in some cases, it was dirty or not available at all. Due to the lack of clean and consistent water supply, many residents were forced to depend on private tankers or store water in unsafe containers, increasing the risk of contamination. In one of the areas visited, a few children were reportedly suffering from diarrhoea, which local residents attributed to poor water quality. Such situations reflect the serious

public health risks posed by inadequate water supply and poor sanitation, particularly in densely populated slum areas.

4. **OUT OF POCKET EXPENSES IN GOVERNMENT HEALTH FACILITIES:** Many individuals in the community complain that doctors regularly give out prescriptions for medicines that aren't accessible at the pharmacy. Patients have to buy their prescriptions from private pharmacies, even though government health institutions are meant to be open and provide them free life-saving drugs. This strategy makes it tougher for individuals to seek follow-up care, weakens the trust of public healthcare systems, and costs low-income families a lot of money out of their own pockets.

5. **DIGITAL CHALLENGES DURING DATA COLLECTION:** The KoboToolbox app had issues including freezing, lagging, and synchronization failures while data collection was going on. These problems made it harder to gather replies and slowed down field operations. These technical problems not only caused delays, but they also made it more likely that data would be entered incorrectly or incompletely.

6. **UNHYGIENIC ENVIRONMENT:**

   Most of the slum areas were found to be dirty and had trash scattered all around there. Thus, poorly executed waste disposal habits rendered the environment unclean. These conditions further led to unpleasant odour and infestation by flies which negatively affects the quality of daily life. Hence in such a context, health problems are bound to occur, especially affecting the elderly and the youth.

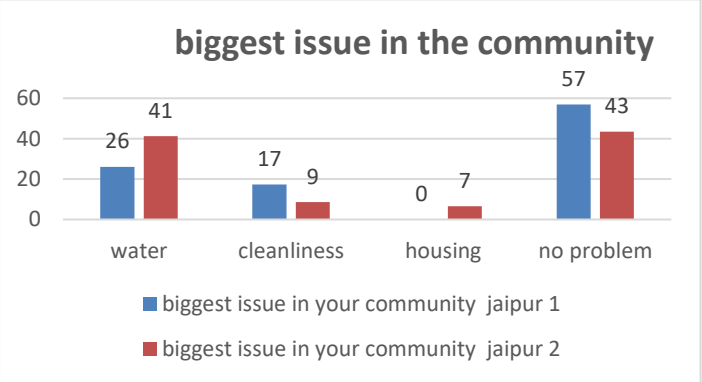


Figure 4: Biggest issue in the community

Suggestions for improvement	**8. ENHANCE AWARENESS ABOUT PUBLIC HEALTH PROGRAMS:** Many people who live in slums don't know about health initiatives like the Heat Action Plan. To lower the health risks that come with environmental stressors, this knowledge gap has to be reduced. It is recommended that awareness campaigns be developed in local languages and distributed through culturally relevant means such as mobile announcements, street plays, posters, and community meetings. Getting Anganwadi staff, local leaders, and community leaders involved can help people feel more connected to each other and create trust. **9. UPGRADED HOUSING INFRASTRUCTURE :** To fix unsafe housing in slum areas, the government should support the creation of heat-resistant, well-ventilated homes and fix roofs that are dangerous. Programs like PMAY may help families make their homes safer and healthier, which can help lower the number of respiratory problems and heat-related diseases. **10. SOLUTIONS FOR INADEQUATE WATER SUPPLY :** • To ensure that every slum residence has a steady and clean municipal water supply, pipelines should be maintained and repaired. Check the quality of the water on a regular basis to identify contamination and fix it right away. Put in communal water tanks or mobile water units in places where there aren't enough. • Encourage people to store water safely to lower the danger of contamination in their homes. • Set up campaigns to teach people about basic hygiene so that people don't fall sick by drinking contaminated water, especially kids. **11. ENSURING CONSISTENT SUPPLY OF ESSENTIAL MEDICINES:** • Better supply chain management and frequent audits will make sure that government pharmacies always have the key pharmaceuticals they need. • To stop doctors from issuing superfluous prescriptions for brand-name or hard-to-find medications, use open prescription

	monitoring. • Public health institutions should make their accountability mechanisms stronger so they can keep an eye on the availability and delivery of medicines. • To make sure that moderately priced alternatives are always available, encourage partnership with state-run pharmacies, such as Jan Aushadhi Kendras. **12. TECHNICAL MODIFICATIONS TO IMPROVE DATA COLLECTION:** • To fix the technical challenges that came up when collecting data, the KoboToolbox form was looked at and changed to make it more usable and reduce mistakes. • One improvement was to update the validation for the mobile number field. Before, the form let you enter more than ten digits, which sometimes led to incorrect data submissions. • The form was changed so that it only accepts 10-digit numbers to make it more accurate. These changes made it less likely that the field would be interrupted, speed up the process of acquiring data, and helped prevent mistakes in entering data. • These improvements show how important it is to thoroughly evaluate digital tools before they are used and to keep making changes based on input from the field. **13. SANITATION MEASURES:** • Make sure that local governments put out garbage cans and pick up rubbish on a regular basis. • Have Anganwadi workers, CBOs, SHGs, and local volunteers help with cleaning projects. Don't allow open dumping and work together on programs to raise awareness about hygiene. • Use Behaviour Change Communication (BCC) to encourage the community to take charge of waste management.

Key learnings	• Realized that health is affected by many things that are interrelated, such as where you live, how you make a living, the environment, and your knowledge of policy, not simply having access to healthcare. • Through surveys and talking to people in the neighborhood, I was able to discover firsthand how public health initiatives function and find important gaps in infrastructure, knowledge, and service delivery. Improved proficiency with digital data handling with KoboToolbox and Excel • Understood that during extreme heat events, social conditions like unstable employment, unsafe housing, and limited access to water greatly increase health risks. • Found a glaring disconnect between public awareness and government health initiatives, highlighting the significance of involving stakeholders for successful implementation. • This experience let me learn how to think on my feet and adapt fast when things are new to me. Dealing with problems like technological glitches, cultural differences, and coordinating things on the ground showed me how important it is to keep cool and look for answers. • As it became a leadership opportunity, I learnt more about how communities function and how important cooperation and data-driven planning are in public health. • This internship has been a major turning point in my career. It made my academic base stronger, improved my field abilities and highlighted the importance of people-centered, data-informed public health approaches.

Signature of the Student

Approved by the IIHMR University's Mentor