International Journal of Community Medicine and Public Health
Yadav D et al. Int J Community Med Public Health. 2026 Feb;13(2):692-700
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20260024

Original Research Article

Evaluating community needs and the effect of community-based intervention in preventing dengue and chikungunya in urban hotspots of Jammu city: a mixed-method study

Devansh Yadav[1], Tasvinder Kour[2], Hemaal Koul[2], Vinod Sharma[1], Rajiv K. Gupta[2]*, Rashmi Kumari[2], Sakshi Manhas[2]

[1]Jammu Municipal Corporation, Jammu, Jammu and Kashmir, India
[2]Department of Community Medicine, Government Medical College, Jammu, Jammu and Kashmir, India

Received: 20 December 2025
Revised: 07 January 2026
Accepted: 09 January 2026

***Correspondence:**
Dr. Rajiv K. Gupta,
E-mail: rajivguptagmc@rediffmail.com

ABSTRACT

Background: Vector-borne diseases (VBDs) remain a major public health concern in India especially with its diverse climate patterns and densely populated urban environments. Understanding community needs and gaps in awareness is crucial for designing interventions that are acceptable and effective. This study aims to evaluate community needs and assess the impact of community-based preventive strategies to reduce the disease burden in urban hotspots of Jammu region.
Methods: The study was conducted over a period of two months in four selected areas. This study adopted a mixed-methods research design to obtain a comprehensive understanding of VBDs among the community, with a specific focus on Dengue and Chikungunya.
Results: A total of 682 participants were assessed for the knowledge, attitude and practices. Most participants correctly identified mosquito transmission and key symptoms, though gaps existed regarding breeding sites and resting habits. A significant proportion overestimated the effectiveness of fogging alone. Government facilities were the preferred choice for treatment, though home remedies were still practiced. Focus group discussions with sanitary workers and Malaria workers highlighted strong community resistance, poor risk perception, and non-cooperation as major barriers to dengue control. Operational challenges included manpower shortages, salary disparities, and inadequate protective equipment, leading to demotivation and health risks. The findings point to behavioural and infrastructure-related constraints affecting effective vector control.
Conclusions: The study demonstrates good awareness but inconsistent preventive practices for dengue and chikungunya, influenced by misconceptions and low risk perception. Community resistance, socio-economic constraints, and operational challenges faced by frontline workers limit effective control.

Keywords: Dengue, Risk perception, Chikungunya, Mixed method, Hotspots

INTRODUCTION

Vector-borne diseases (VBDs) remain a major public health concern in India, accounting for nearly one-sixth of all communicable diseases. Dengue and Chikungunya fever, transmitted primarily by *Aedes aegypti* mosquitoes, have emerged as rapidly expanding arboviral illnesses globally. Although the case fatality rate is relatively low compared to other infectious diseases, the absolute mortality burden, combined with prolonged morbidity, frequent hospitalizations, and the risk of severe complications make them a formidable public-health challenge.[1] India, with its diverse climate patterns and densely populated urban environments, continues to report

significant seasonal outbreaks, particularly during and after the monsoon months.

Rapid and often unplanned urbanization have contributed to overcrowded settlements, inadequate waste disposal and poor drainage systems—all of which create abundant breeding habitats for *Aedes* mosquitoes. Water storage practices in areas with irregular municipal supply further facilitate vector proliferation. Additionally, increased human mobility complicate outbreak control and contribute to recurrent epidemics across India, including previously low-risk regions.[2]

Despite sustained efforts under the National Vector Borne Diseases Control Programme (NVBDCP), vector control continues to face major operational challenges. Evidence increasingly shows that knowledge, attitudes, and practices (KAP) of community members play a central role in disease prevention. Poor awareness about transmission, delayed health-seeking behaviour, and inadequate household-level vector control allow transmission to persist even in areas with ongoing public-health interventions. In contrast, communities with better understanding of dengue prevention demonstrate higher adoption of protective behaviours such as eliminating stagnant water, covering containers, improving environmental sanitation, and participating in local clean-up initiatives.[3]

Understanding community needs and gaps in awareness is crucial for designing interventions that are acceptable and effective. This study aims to evaluate community needs and assess the impact of community-based preventive strategies, contributing evidence that can help policymakers strengthen dengue-control programs and reduce the disease burden in urban hotspots of Jammu region. This study aims to assess the gaps in the knowledge, attitude and practices of the urban community of Jammu region for prevention and control of dengue and chikungunya and to identify the barriers perceived by the local health workers involved in the implementation of the VBD control programme.

METHODS

Study design

This study adopted a mixed-methods research design, integrating both quantitative and qualitative approaches to obtain a comprehensive understanding of VBDs among the community, with a specific focus on dengue and chikungunya.

Study area, duration, and population

This was a community-based study which was conducted over a period of two months (from 01 October 2025 to 30 November 2025) in four selected areas: Muthi (M), Durga Nagar (DN), Gandhi Nagar (GN), and Satwari (S) which comprised 5 urban wards of Jammu Municipality. These areas were selected as they reported the maximum rising trend in dengue and chikungunya cases in 2024 as compared to the last year (2023).

Operational definition of hotspot, a disease hotspot in the study is a geographical area with a significantly higher incidence (≥10% increase) of dengue/chikungunya compared to the previous year due to favourable ecological, social or epidemiological factors.

Inclusion criteria

Quantitative part of the study

The study population consisted of residents aged ≥18 years, including both males and females, who had been residing in the study area for more than two years and were willing to provide written informed consent.

Qualitative part of the study

The participants included sanitation and malaria workers who were actively involved in the implementation of the VBD control programme in the surveyed areas.

Exclusion criteria

Exclusion criteria included individuals who did not consent to participate or were unable to comprehend the questionnaire were excluded from the study.

Sample size

The sample size was initially estimated to be 440, based on an assumed 50% prevalence of knowledge regarding dengue and chikungunya and allowing for a 10% non-response rate. However, data collection continued throughout the predefined study period, and finally, a total of 682 participants were interviewed.

Sampling technique

A two-stage sampling technique was employed for the quantitative component of the study, with the household considered as the primary sampling unit. In stage 1, simple random sampling (SRS) was used to select the primary enumeration areas (wards). In stage 2, from each selected ward, systematic sampling was used to select the required number of households. Participants aged ≥18 years were selected using the Kish method, whereby one eligible adult was randomly chosen from each selected household to ensure equal probability of selection. House-to-house visits were conducted sequentially until the desired sample size was achieved. If no eligible participant was available in a selected household, the next household was approached.

For the qualitative component, three focused group discussions (FGDs) were conducted. The participants for these 3 FGDs included local health workers actively

involved in the implementation of the VBD control programme in the surveyed areas.

Data collection and tools

Quantitative data collection

The quantitative survey was conducted at the household level in the selected areas. Data about sociodemographic variables was collected through face-to-face interviews with any adult member (>18 years) of the sampled household. It was followed by the administration of a pre-tested, semi-structured KAP questionnaire about dengue and chikungunya.

Qualitative data collection

FGDs were conducted with local health workers who were directly involved in the prevention and control of vector-borne diseases in the surveyed areas. The discussions were conducted in the local languages. The primary focus of the FGDs was to explore the challenges faced by health workers during prevention and control activities.

Data analysis

Quantitative data were entered into Microsoft Excel and interpreted as ratios and proportions, analyzed using statistical software.

Qualitative data from the focus group discussions were audio-recorded, transcribed verbatim, and translated into English where necessary. Thematic analysis was carried out using a systematic approach, involving familiarization with the data, coding, theme generation, and interpretation. The findings from the qualitative component were used to complement and enrich the quantitative results.

RESULTS

Quantitative

The study population was predominantly male (82.8%), middle-aged to elderly (75%), and largely Hindu (94.6%). Slightly more than half of the respondents belonged to nuclear families. Service and business were the major occupations (Table 1).

Awareness of dengue was almost universal, while knowledge of chikungunya was comparatively lower. Most participants correctly identified mosquito transmission and key symptoms, though gaps existed regarding breeding sites and resting habits. Misconceptions such as belief in home remedies were common (Table 2).

Most participants perceived dengue and chikungunya as serious public health problems. However, a significant proportion believed prevention to be the government's responsibility and overestimated the effectiveness of fogging alone. Positive attitudes towards health education and community participation were observed (Table 3).

Preventive practices such as covering water containers were commonly reported, while the use of repellents, nets, and protective clothing was inconsistent. Community participation in cleaning activities was moderate. Government facilities were the preferred choice for treatment, though home remedies were still practiced (Table 4).

Table 1: Socio-demographic variables of the participants.

Characteristics	Number of participants (N)	Percentage (%)
Age (years)		
18-30	55	8.1
31-40	115	16.9
41-50	181	26.5
>50	331	48.5
Gender		
Males	565	82.8
Females	117	17.2
Religion		
Hindu	645	94.6
Muslim	08	1.2
Sikhism	24	3.5
Christian	05	0.7
Type of family		
Nuclear	356	52.2
Joint	326	47.8
Occupation		
Student	22	3.2
Homemaker	74	10.9
Service (government and private)	331	48.5
Business	211	30.9
Retired	44	6.5

Qualitative

Focus group discussions with sanitary workers and Malaria workers highlighted strong community resistance, poor risk perception, and non-cooperation as major barriers to dengue control. Operational challenges included manpower shortages, salary disparities, and inadequate protective equipment, leading to demotivation and health risks (Tables 5 and 6). Malaria workers also pointed out the diversion of staff to other duties limited sustained awareness and surveillance activities (Table 6). Overall, the findings point to behavioural, institutional, and infrastructure-related constraints affecting effective vector control.

Table 2: Knowledge of the participants regarding dengue and chikungunya (n=682).

Question about knowledge	Dengue		Chikungunya	
	Yes	Percentage	Yes	Percentage
Heard about the disease	675	99.0	599	87.8
Cause of the disease (virus)	493	73	441	74
Transmission of the disease (mosquito bite)	566	84	465	78
Common symptoms of the disease				
High fever	659	98	558	
Joint and muscle pain	443	66	369	62
People in poor living conditions get these disease	292	43	292	49
Breeding site of the mosquito (stagnant dirty water)	511	76	432	72
Resting habit of the mosquito (dark corners of a room)	423	63	397	66
Can the disease be prevented	641	95	541	90
Methods to prevent the disease (mosquito nets)	482	71	410	68
Can home remedies cure the disease	517	76	517	86

Table 3: Attitude of the participants regarding dengue and chikungunya (n=682).

Question about attitude	Response	
	Yes (%)	No (%)
The disease is a serious public threat		
Dengue	508 (74.4)	174 (25.6)
Chikungunya	491 (72.0)	191 (28.0)
Prevention of the disease is the responsibility of the government	147 (21.6)	535 (78.4)
Mosquito nets are unnecessary if you live in a clean home	289 (42.4)	393 (57.6)
Fogging is enough to control mosquitoes	222 (32.6)	460 (67.4)
Covering arms and legs reduces the chances of mosquito bites	514 (75.4)	168 (24.6)
Participating in community health activities prevents breeding	386 (56.6)	296 (43.4)
Would you report mosquito breeding sites to the authorities	384 (56.3)	298 (43.7)
The disease is not serious as people say		
Dengue	239 (35.1)	443 (64.9)
Chikungunya	234(34.3)	448 (65.7)
Health education can reduce the spread of the disease	534 (78.3)	148 (21.7)

Table 4: Practice of the participants regarding dengue and chikungunya (n=682).

Question about practice	Response	
	N	Percentage
Do you cover water storage containers		
Always	609	89.3
Sometimes	69	10.1
Never	04	0.6
Do you use mosquito repellents regularly		
Always	278	40.8
Sometimes	384	56.3
Never	20	2.9
Do you and your family members use mosquito nets while sleeping?		
Always	178	26.1
Sometimes	326	47.8
Never	178	26.1
Do you wear full sleeves and long pants during mosquito season		
Always	283	41.5
Sometimes	356	52.2
Never	43	6.3
Have you participated in community cleaning drives		
Yes	428	62.8
No	254	37.2

Continued.

Question about practice	Response	
	N	Percentage
How often do you inspect your home surroundings for mosquito breeding		
Daily	175	25.7
Weekly	413	60.5
Fortnightly	76	11.2
Never	18	2.6
Do you follow dengue prevention campaigns or posters?		
Always	319	46.8
Sometimes	282	41.3
Never	81	11.9
Do you dispose off used tyres, bottles and cans properly?		
Always	378	55.4
Sometimes	253	37.1
Never	511	7.5
Whom do you contact for dengue/chikungunya treatment		
At government hospital	615	90.2
At private clinic	427	62.6
Home remedies	300	44
Wait and watch	20	2.9

Table 5: Results of the focus group discussion with the sanitary workers.

Question	Answers (verbatim and translation)	Sub themes	Themes
What challenges or difficulties do you face while working in the community?	"Jab hum kachra lene jaate hain, to log apne ghar ka darwaaza nahi kholte, specially jab aadmi kaam par chale jaate hain aur ladies ghar pe akeli hoti hain." Workers experience difficulties getting residents to open their doors or come outside, especially when men are out for work, and only women are home.	Resistance to engagement	Community resistance and behavioral factors
	"Bahut logon ko mahine ke 100 rupay dene main problem hai, khaaskar who log jo sardiyon mein jammu aate hain Kashmir se ya Ladakh se, ya jo rent pe rehte hain. Ye log kahin bhi khuli jagah dekh ke kachra phaink dte hain". A segment of the population resists paying the nominal monthly fee (around Rs 100/month) and disposes of their garbage illegally at night in vacant plots. There are also temporary residents (like those who come in winter for a month or two) who resist education and throw garbage outside, saying they only plan to stay for a short time.	Defaulters and non-payment of sanitation fee.	
	Dengue ek khatarnak aur jaanleva bimari hai, har saal dengue ke cases aate hain, phir bhi log isko seriously nahi lete. Ye to cancer jitni khatrnaak hai". Even though dengue is common, people are often careless and take the issue lightly, sometimes viewing the disease as less dangerous than it is (one participant compared the severity of dengue to cancer).	Lack of awareness and carelessness	
What barriers do you face while working on the ground level? Is there any hindrance to your work?	"Hamare paas workers kam hain aur area bahut zyada hai, specially barsaat ke mausam mein jab kaam bahut zyada hota hai to koi extra help nahi milti". Participants (staff) cite covering an excessive area (e.g., three large wards per supervisor and worker). During the monsoon and outbreak season (August to November), when the workload increases significantly, *no extra workforce is provided.	Workforce deficit	Institutional and infrastructure limitations
	"Contractual sanitary workers ki salary (₹7,000–₹8,000) aur permanent worker ki salary (₹20,000+), mein bahut farak hai jabki kaam same hai. Is se workers demotivated feel karte hain". NGO or temporary workers receive significantly lower salaries compared to permanent workers despite performing the same work. This disparity impacts motivation, although some workers remain dedicated.	Salary disparity and motivation	

Continued.

Question	Answers (verbatim and translation)	Sub themes	Themes
	"Sanitary workers ko PPE jaise ki gloves, long boots aur barsaati bahut kam matra (insufficient number) mein milte hain. Gandi naaliyan bina gloves ke saaf karni padti hain jis karan workers ki health kharaab hoti hai". Lack of personal protective equipment (PPE), which affects their health and duties. Sanitation staff (safai karamchari) are not properly equipped with essential gear, such as gloves, long shoes, masks, and raincoats (barsatiyan). If they become sick due to exposure, their salary may be docked, creating a negative cycle where lack of equipment leads to illness, which leads to loss of pay.	Lack of equipment	

Table 6: Result of the focus group discussion (FGD) with the Malaria workers.

Question	Answers (verbatim and translation)	Sub themes	Themes
What challenges do you face while creating awareness about dengue and chikungunya in the community?	"Logon ko dengue serious bimari nahin lagti. Workers ke baar baar samjhane par bhi log nahin smajhte". Despite repeated visits and counselling, people often do not follow advice and revert to old habits. Many residents do not take vector-borne diseases seriously unless personally affected.	Lack of compliance and apathy	Community -related challenges
	"Jab tak ki koi ghar ka member bimar na ho, log dengue ko seriously nahin lete." Most people do not perceive these diseases as dangerous or life-threatening. Preventive actions are usually taken only after illness occurs in the family or neighbourhood.	Absence of fear and risk perception	Community -related challenges
	"Is bimari ka koi ilaaj Nahin hai, sirf rokthaam ki ja sakti hai par log is baat ko realise Nahin karte". People believe treatment alone is sufficient, while workers emphasize that there is no definitive hospital cure, and prevention through cleanliness is essential.	Misconceptions about treatment	Community -related challenges
	"Jab kisi ko dengue hota hai to wo isko chupate hain, khaaskar wo log jo rent par rehte hain". Tenants often hide illness or refuse spraying due to fear of stigma and landlord reaction. Some provide fake contact details or avoid confirmation of positive status.	Stigma and avoidance behaviour	Community -related challenges
How does water scarcity influence mosquito breeding?	"Jis area mein paani time to time aata hai, wahan log paani drum ya baalti mein store karte hain bina cover kiye". Due to water shortages, people store water in drums and containers, often without proper covers, and cannot afford to discard stored water frequently.	Water storage practices	Socio-economic and environmental barriers
What operational difficulties do field staff face?	"Department ke paas workers ki bahut shortage hai. Recruitments hi nahi hui". Severe manpower shortages exist, with supervisors covering multiple wards and reduced field workers due to retirements and lack of recruitment.	Manpower shortage	Systemic and operational constraints
	"Dengue season khatam hone ke baad, workers ko alagh kaam pe attach kar diya jaata hai, jisse awareness ka kaam bahut affect hota hai". Workers are frequently diverted to other departments, affecting routine VBD activities and seasonal awareness campaigns.	Work diversion and attachments	

DISCUSSION

Study was conducted for the period of one month i.e. 1st KAP assessment is generally considered a good initial step for planning public health intervention. A reasonably good KAP about dengue and chikungunya was reported by the study population. Transmission of the disease was correctly reported for 83% in dengue and 68.2% in chikungunya in the current study which are lower than those reported by Akhiljit et al and Animesh et al.[4,5] Majority of the respondents knew that dengue patients had high fever and the disease can be prevented which reflected in good practices wherein 90% of the respondents reported to government hospitals for treatment. In an earlier study conducted by Gupta et al in the rural area of Jammu district, the main source of information regarding malaria was television/newspaper and more than two-third of the respondents (71.6%) preferred going to doctors at government hospitals for malaria treatment.[6]

Priyadarsini reported that though half of the population had good knowledge regarding preventive strategies for vector borne diseases but most of them had high perceptions about preventive strategies for vector borne diseases but most of them had high perceptions about preventive strategies.[7] Akhiljit et al reported that majority of participants considered dengue, chikungunya malaria a serious health problem and the attitude was positive in almost all study subjects.[5] Alobuia et al, in a study from Jamaica reported that most respondents scored low on knowledge and practice items but scored high on attitude items.[8] Ghimire et al reported that only 64.9% were knowing about dengue fever, attitude was positive in 91.51% and 50% respondents reported actively engaging in dengue fever prevention measures.[3] Debayan et al, reported unsatisfactory KAP regarding disease prevention/control from slums of Kolkata.[9] Desjardins et al, in a study from Colombia noted that knowledge is related to community characteristics while attitudes and practices were more related to individual level factors.[10]

The findings from the focus group discussions provided a comprehensive understanding of the multi-level barriers that hinder effective control of VBDs in the study area. The issues identified span community behaviour, socio-economic conditions, environmental risks, workforce limitations, and gaps in institutional coordination, which together create a persistent environment for dengue, chikungunya, and malaria transmission. These findings are consistent with literature from similar urban contexts across India and other low- and middle-income countries.[11,12]

A dominant theme was the low level of risk perception and awareness among community members. Workers reported that many residents, even after repeated visits, continued to keep open containers, store water improperly, or leave discarded waste in their surroundings. This behaviour reflects a pattern described in earlier studies, which show that low perceived severity and susceptibility remain major barriers to dengue prevention.[13,14] Even though some participants compared dengue to severe illnesses, the general population often trivializes its risk unless personally affected, aligning with the health belief model, which predicts action only when the perceived threat is sufficiently high.[15]

The FGDs also revealed substantial behavioural resistance in the community, including refusal to open doors, fear of challans (fines), and distrust of municipal or health staff. Such resistance has also been documented in other Indian VBD settings, where fear of punitive action reduces cooperation with surveillance and spraying teams.[16] Furthermore, stigma-related behaviours were evident: tenants and labourers often concealed illness or gave incorrect contact details, fearing eviction or discrimination. Similar stigma-related avoidance behaviours have been widely reported in communicable diseases such as tuberculosis, leprosy, HIV, and malaria.[17,18]

Socio-economic constraints, especially in slum areas, were highlighted as significant contributors to persistent mosquito breeding. Water scarcity compels poor households to store water in large containers—often uncovered—creating multiple breeding sites for Aedes mosquitoes.[11] The inability of families to afford repellents, nets, or proper container covers further exacerbates vulnerability, consistent with global findings that poverty is strongly associated with higher VBD incidence.[19]

Environmental conditions in slums, such as narrow lanes, open drains, and accumulation of domestic waste, compound these risks. However, it was also noted that middle-class households inadvertently maintain breeding sites, including refrigerator trays, potted plants, and tyres, which aligns with urban dengue literature.[20]

The FGDs highlighted critical operational and manpower shortages. Workers reported covering multiple wards single-handedly, leading to inadequate surveillance and delayed intervention. Manpower gaps within VBD programmes have been consistently cited as a major limiting factor in India's vector control capacity.[21]

A concern frequently raised by workers was the lack of safety equipment and absence of risk allowances for those performing fogging, a task associated with burns, inhalational exposure, and machine explosions. Similar occupational hazards among vector-control personnel have been documented internationally, highlighting the need for protective gear and structured risk compensation.[22]

Despite these challenges, participants proposed realistic solutions. Strong emphasis was placed on stricter enforcement mechanisms, with workers suggesting higher penalties for non-compliance. Evidence shows that regulatory enforcement, when combined with community education, can improve sanitation and waste-management behaviour.[23]

Participants also advocated for mass awareness campaigns using social media, public figures, posters in markets, and messages broadcast through municipal garbage vehicles. School-based education was highlighted as an effective method for long-term behavioural change, consistent with existing literature showing positive outcomes of school-centered VBD education.[24]

Overall, the integrated findings suggest that while technical interventions—fogging, larval surveillance, waste collection—are in place, these alone are insufficient. Sustainable VBD control requires behaviour change interventions, improved community trust, adequate staffing, improved worker safety, effective enforcement, and robust inter-sectoral collaboration. These conclusions align strongly with WHO's framework for integrated vector management, which emphasizes combining environmental management, community participation and strengthened institutional systems.[25]

Limitations

The cross-sectional design of the present study limits causal inference. Purposive selection of urban wards may restrict generalizability of the findings. Focus group discussion could not be conducted in the community due to time and resource constraints.

CONCLUSION

The study demonstrates that despite good awareness and generally positive attitudes towards dengue and chikungunya, significant gaps persist in preventive practices, risk perception, and community cooperation. Behavioural resistance, socio-economic constraints, and operational shortcomings among field workers limit effective vector control, highlighting the need for integrated, community-centred and system-strengthening interventions.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Lachyan A, Zaki RA, Banerjee B, Aghamohammadi N. The effect of community-based intervention on dengue awareness and prevention among poor urban communities in Delhi, India. J Res Health Sci. 2023;23(4):e00596s.
2. Lachyan AS, Khan AM, Zaki RA, Banerjee B. Effect of community-based intervention on awareness of dengue and its prevention among urban poor community in India: A systematic review approach. Int J Community Med Public Health. 2020;7:5182-9.
3. Ghimire S, Pangeni S. A mixed method evaluation of knowledge, attitude and practice on dengue fever among Lalitpur Metropolitan City residents: a cross-sectional investigation. BMC Infect Dis. 2024;24:1124.
4. Akhiljith VA, Sreerag KR, Mallappa HS. Assessment of knowledge, attitude, practice towards vector borne diseases in urban area of Bagalkote, Karnataka, India. Int J Res Med Sci. 2024;12(1):133.
5. Gupta A, Bhat A. Knowledge, attitude and practices regarding malaria among residents of rural Mangalore, India. Int J Res Med Sci. 2019;7(1):231-5.
6. Gupta RK, Raina SK, Shora TN, Jan R, Sharma R, Hussain S. A household survey to assess community knowledge, attitude and practices on malaria in a rural population of Northern India. J Fam Med Prim Care. 2016;5(1):101-7.
7. Priyadarisini N, Badiger S, Udayakiran N, Shetty AK. A cross sectional study on knowledge and perception about risk factors of selected vector borne diseases among the population of rural field practice areas of KSHEMA. Int J Infect Dis. 2016;45:218.
8. Alobuia WM, Missikpode C, Aung M, Jolly PE. Knowledge, attitude, and practices regarding vector-borne diseases in Western Jamaica. Ann Global Health. 2015;81(5):654-63.
9. Podder D, Paul B, Dasgupta A, Bandyopadhyay L, Pal A, Roy S. Community perception and risk reduction practices toward malaria and dengue: A mixed-method study in slums of Chetla, Kolkata. Indian J Public Health. 2019;63(3):178-85.
10. Desjardins MR, Casas I, Victoria AM, Carbonell D, Dávalos DM, Delmelle EM. Knowledge, attitudes, and practices regarding dengue, chikungunya, and Zika in Cali, Colombia. Health Place. 2020;63:102339.
11. Podder D, Paul B, Dasgupta A, Bandyopadhyay L, Pal A, Roy S. Community perception and risk reduction practices toward malaria and dengue: A mixed-method study in slums of Chetla, Kolkata. Indian J Public Health. 2019;63(3):178-85.
12. Asebe G, Mamo G, Wieland B, Medhin G, Tilahun G, Abegaz WE, et al. Community awareness and experiences of health workers concerning mosquito-borne viral diseases in selected districts of Gambella Region, Southwestern Ethiopia. Infect Ecol Camp Epidemiol. 2021;11(1):1988453.
13. Wong LP, Rajandra A, Abd Jamil J, AbuBakar S, Lin Y, Lee HY. Effectiveness of dengue awareness calendar on indigenous population: Impact on knowledge, belief and practice. In Healthc. 2023;11(5):637.
14. Wong LP, AbuBakar S. Health beliefs and practices related to dengue fever: a focus group study. PLoS Neglected Tropical Dis. 2013;7(7):e2310.
15. Mulderij-Jansen V, Elsinga J, Gerstenbluth I, Duits A, Tami A, Bailey A. Understanding risk communication for prevention and control of vector-borne diseases: A mixed-method study in Curaçao. PLOS Neglected Tropical Dis. 2020;14(4):e0008136.
16. Kumar KR, Gururaj G. Community Perception Regarding Mosquito-borne Diseases in Karnataka State, India. Dengue Bull. 2005;30.
17. Arellano C, Castro L, Díaz-Caravantes RE, Ernst KC, Hayden M, Reyes- Castro P. Knowledge and beliefs about dengue transmission and their relationship with prevention practices in Hermosillo, Sonora. Front Public Health. 2015;3:142.
18. Sima BT, Belachew T, Abebe F. Knowledge, attitude and perceived stigma towards tuberculosis among pastoralists; Do they differ from sedentary communities? A comparative cross-sectional study. PLoS One. 2017;12(7):e0181032.
19. Mehmood Y, Arshad M. Dengue in the urban slums of Pakistan: health costs, adaptation practices, and the role of dengue-diagnosis and surveillance in controlling the epidemic. Geo J. 2024;89(2):75.
20. Rehman N. Epidemic infrastructures and the politics of responsibility in Lahore. Antipode. 2022;54(5):1451-75.

21. Amitha K, Rahul A, Choolayil AC, Moosan H. Exploring the capacity and challenges to strengthen the health system performance for future outbreaks of Aedes-borne diseases in Puducherry, India. J Public Health Policy. 2025;1-25.
22. Arham AF, Amin L, Mustapa MAC, Mahadi Z, Yaacob M, et al. Fogging to combat dengue: factors influencing stakeholders' attitudes in Malaysia. BMC Public Health. 2023;23:1140.
23. Sekito T, Prayogo TB, Dote Y, Yoshitake T, Bagus I. Influence of a community-based waste management system on people's behavior and waste reduction. Resour Conserv Recycl. 2013;72:84-90.
24. Dapari R, Jumidey AQ, Manaf RA, Zamzuri MA, Hassan MR, Dom NC, et al. School-based health education effect on knowledge, attitude, and practices of dengue prevention among school children: a systematic review. Dis Soc Sci Health. 2025;5(1):1-11.
25. World Health Organization. Global strategic framework for integrated vector management. World Health Organization. 2004. Available at: https://www.who.int/publications/i/item/WHO-CDS-CPE-PVC-2004.10. Accessed on 26 October 2025.

Cite this article as: Yadav D, Kour T, Koul H, Sharma V, Gupta RK, Kumari R, et al. Evaluating community needs and the effect of community-based intervention in preventing dengue and chikungunya in urban hotspots of Jammu city: a mixed-method study. Int J Community Med Public Health 2026;13:692-700.