



The Overlooked Impact of Chikungunya on Healthcare Professionals: An Occupational Health Perspective

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Received: December 27, 2025, Revised: July 4, 2026, Accepted: July 12, 2026, ePublished: July 30, 2026

Dear Editor,

Chikungunya is a viral disease that is known for causing severe joint pain, high fever, a maculopapular rash, and severe malaise. Despite the medical focus on recognizing and treating this disease, healthcare professionals, including physicians, nurses, laboratory technicians, and support staff, have been consistently overlooked.¹

Beyond the immediate physical and economic costs, the psychological impact of the disease is also considerable, suggesting that its long-term effects on mental well-being are a critical and underappreciated aspect of the occupational burden. Moreover, healthcare professionals constantly experience the stress of managing a public health crisis while navigating systemic failures that place them at increased risk.²

Additionally, healthcare facilities, characterized by chronic staff shortages, inadequate infection control protocols for communicable diseases, and forced presence in high-risk infectious settings, have become environments where healthcare professionals themselves become vectors of the disease, thereby perpetuating a harmful cycle of transmission among the most vulnerable populations.³

Likewise, healthcare professionals face an elevated risk of chikungunya infection due to their occupational exposure, particularly during outbreaks. Other occupational issues encompass direct morbidity, mental health consequences, and significant economic burdens for healthcare systems.⁴

The findings of a study conducted in the Democratic Republic of the Congo revealed that a substantial proportion of nurses and laboratory technicians were involved in chikungunya outbreak response, highlighting their frontline exposure.⁵

Beyond acute problems, long-term outcomes are concerning; the follow-up studies of chikungunya-infected individuals have demonstrated persistent rheumatic morbidity, chronic discomfort (including headache and fatigue), and depressive moods, with no overall

improvement in their quality of life over time.⁶

Furthermore, the shift from acute to chronic symptoms, which can persist for months or even years, transforms their work lives into a daily battle with musculoskeletal pain, stiffness, and chronic fatigue. To endure their shifts, they frequently turn to self-medication with painkillers and anti-inflammatory drugs, potentially concealing their symptoms from colleagues and supervisors. Alongside the physical pain, the neurological and psychological impacts of the virus (e.g., severe brain fog, memory loss, and depression) further undermine their professional confidence and clinical decision-making.^{1,7}

For healthcare professionals dealing with chronic chikungunya, burnout represents a profound loss of professional identity and purpose. In addition, their physical vulnerability predisposes them to a potential psychological crisis, as they simultaneously face significant psychological and moral distress from managing the outbreak while battling the virus themselves. Moreover, they must provide care and comfort to a multitude of anxious patients while managing their own pain and fear of what lies ahead.⁸

Therefore, healthcare professionals are compelled to adopt self-protective behaviors that may evoke feelings of guilt and dishonesty in their interactions with patients. They are not only caregivers but also vulnerable individuals whose occupational exposure, psychological burden, and chronic health outcomes demand systematic attention within outbreak response frameworks.⁹

These healthcare workers are frequently forced to make difficult decisions about patient prioritization that contradict their ethical training, thereby creating profound moral distress. Furthermore, the constant pressure of managing crises contributes to burnout, which is characterized by emotional, mental, and physical exhaustion, cynicism, depersonalization, and a diminished sense of personal accomplishment.¹⁰

The occupational impact of chikungunya on healthcare professionals is significant. Work absenteeism represents the most immediate and measurable consequence, with infected healthcare workers frequently requiring extended leave due to debilitating arthralgia and fatigue, which not only strains hospital staffing during outbreaks but also imposes substantial economic costs on healthcare institutions.¹¹

To effectively protect public health, it is crucial to prioritize the safety and well-being of healthcare professionals. This process includes implementing policies that ensure their protection and provide necessary support, reducing the social stigma surrounding patients with the infection, and creating specialized mental and physical health services for affected individuals. It further encompasses demonstrating a commitment by policymakers and managers in order to value the long-term health of the healthcare workforce without judging them in case they become ill.^{12, 13}

Conclusion

A comprehensive understanding of chikungunya requires consideration of its impact on healthcare professionals. Overall, these health workers face the triple burden of clinical illness, psychological trauma, and systemic neglect. They not only experience the physical symptoms of the virus but also bear the emotional burden of psychological suffering while caring for patients. To reduce these issues, occupational surveillance systems should systematically track infection rates, symptom duration, and recurrence patterns among staff, thereby enabling healthcare administrators to identify high-risk departments and allocate resources such as personal protective equipment and training more effectively. Moreover, they should possess the authority to mandate paid sick leave, fund occupational health programs, and establish national guidelines for chikungunya prevention and management in healthcare settings. By incentivizing institutional preparedness and ensuring that healthcare professionals have access to necessary support and legal protections, policymakers can reduce the long-term burden of chikungunya on both healthcare professionals and the systems they sustain.

Competing Interests

The authors declare no conflict of interests.

Funding

This research received no external financial support.

Informed Consent

Not applicable.

References

1. Ojeda Rodriguez JA, Haftel A, Walker III JR. Chikungunya

fever. In: StatPearls [Internet]. Treasure Island, FL: StatPearls Publishing; 2025. Updated June 26, 2023. Accessed July 4, 2026. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK534224/>.

2. Doran C, Duits A, Tami A, Gerstenbluth I, Bailey A. "It's very saddening, you keep on wondering when the symptoms will be over": a qualitative study exploring the long-term chikungunya disease impact on daily life and well-being, 6 years after disease onset. *PLoS Negl Trop Dis* 2023;17(12): e0011793. doi:[10.1371/journal.pntd.0011793](https://doi.org/10.1371/journal.pntd.0011793)
3. Mourad O, Makhani L, Chen LH. Chikungunya: an emerging public health concern. *Curr Infect Dis Rep* 2022;24(12):217-28. doi:[10.1007/s11908-022-00789-y](https://doi.org/10.1007/s11908-022-00789-y)
4. Tiozzo G, de Roo AM, Gurgel do Amaral GS, Hofstra H, Vondeling GT, Postma MJ. Assessing chikungunya's economic burden and impact on health-related quality of life: Two systematic literature reviews. *PLoS Negl Trop Dis* 2025;19(5): e0012990. doi:[10.1371/journal.pntd.0012990](https://doi.org/10.1371/journal.pntd.0012990)
5. Ngatu NR, Kanbara S, Wansu-Mapong C, Tondungu DK, Leon-Kabamba N, Nsadi-Fwene B, et al. Occupational infection prevention among nurses and laboratory technicians amidst multiple health emergencies in outbreak-prone country, DR Congo. *Trop Med Infect Dis* 2026;11(1):14. doi:[10.3390/tropicalmed11010014](https://doi.org/10.3390/tropicalmed11010014)
6. da Cunha RV, Trinta KS. Chikungunya virus: clinical aspects and treatment - a review. *Mem Inst Oswaldo Cruz* 2017;112(8):523-31. doi:[10.1590/0074-02760170044](https://doi.org/10.1590/0074-02760170044)
7. Tritsch SR, Encinales L, Pacheco N, Cadena A, Cure C, McMahon E, et al. Chronic joint pain 3 years after chikungunya virus infection largely characterized by relapsing-remitting symptoms. *J Rheumatol* 2020;47(8):1267-74. doi:[10.3899/jrheum.190162](https://doi.org/10.3899/jrheum.190162)
8. Santos LG, Jacob-Nascimento LC, Anjos RO, Portilho MM, Cavalcante VM, Paz AS, et al. Chikungunya chronic arthralgia: impact on general and mental health and absenteeism from work. *Rev Soc Bras Med Trop* 2024;57: e007162024. doi:[10.1590/0037-8682-0149-2024](https://doi.org/10.1590/0037-8682-0149-2024)
9. Luo J, Liu X, Chen K, Wei W. Knowledge, attitudes, and practices regarding chikungunya fever among healthcare workers: a cross-sectional study in Sichuan province, China. *Front Public Health* 2025;13:1729173. doi:[10.3389/fpubh.2025.1729173](https://doi.org/10.3389/fpubh.2025.1729173)
10. Brito C, Falcão MB, de Albuquerque M, Cerqueira-Silva T, Teixeira MG, de Oliveira Franca RF. Chikungunya: from hypothesis to evidence of increased severe disease and fatalities. *Viruses* 2025;17(1):62. doi:[10.3390/v17010062](https://doi.org/10.3390/v17010062)
11. Bastos ML, de Abreu FS, da Silva Junior GB. Inability to work due to chikungunya virus infection: impact on public service during the first epidemic in the state of Ceará, northeastern Brazil. *Braz J Infect Dis* 2018;22(3):248-9. doi:[10.1016/j.bjid.2018.05.002](https://doi.org/10.1016/j.bjid.2018.05.002)
12. Moizéis RN, de Medeiros Fernandes TA, da Matta Guedes PM, Pereira HW, Lanza DC, de Azevedo JW, et al. Chikungunya fever: a threat to global public health. *Pathog Glob Health* 2018;112(4):182-94. doi:[10.1080/20477724.2018.1478777](https://doi.org/10.1080/20477724.2018.1478777)
13. Zerfu B, Kassa T, Mamo G, Legesse M. Knowledge, attitude, and practices of the community about chikungunya in selected districts of Afar region, northeast Ethiopia; its implications for controlling the disease: a community-based quantitative and qualitative cross-sectional study. *BMC Public Health* 2024;24(1):3441. doi:[10.1186/s12889-024-20987-8](https://doi.org/10.1186/s12889-024-20987-8)