prompting further investigation into potential exposures. Surveillance data revealed various health issues, such as wound care (33.1%), altered consciousness (10.7%), musculoskeletal complaints (12.4%), ENT problems (7.7%), and gastrointestinal issues (6.0%).

The festival setting demonstrated the importance of real-time surveillance, integrated health responses, and multidisciplinary collaboration to safeguard public health at mass gatherings. These measures emphasize the need for adaptable strategies and ongoing evaluation to optimize health interventions in similar high-risk environments. This experience also highlights the role of public health in mitigating risks while promoting safer, enjoyable events.

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Evaluating Inter-Rater Consistency in a New Four-Question Triage Tool for Mass Gathering Events

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Introduction: Effective triage at mass gatherings is essential for optimal resource allocation and timely medical care. Unlike disaster or hospital settings, mass gatherings present unique challenges. The primary objectives of triage at such events are to identify and prioritize life-threatening conditions, recognize cases exceeding available care levels, and minimize disruptions for both patients and the event itself. This study introduces a novel decision-support tool for triaging patients at mass gatherings, directing them to either a "Medical Zone" or a "First Aid Zone" based on non-vital sign criteria. The tool employs four straightforward questions to facilitate rapid triage. The inter-rater consistency was assessed to determine the tool's reliability.
Methods: Thirty-one responders with experience in event-based care assessed 46 written patient vignettes, assigning each patient to either the Medical Zone or First Aid Zone based on four binary questions: 1) Is the patient unable to walk calmly and independently? 2) Is the patient communicating in a distressed manner? 3) Does the patient have cardiac or respiratory complaints? 4) Does the patient give a worrying impression? Responders included event first responders, emergency medical technicians, nurses, and physicians, all of whom received standardized instructions on the tool's usage.
Results: The overall inter-rater agreement for triage decisions, measured by Fleiss' Kappa (0.64, $P < 0.001$), demonstrated substantial consistency among responders. This suggests that the tool can consistently guide responders in assigning patients to the appropriate care zones, thereby supporting efficient resource allocation in the field.
Conclusion: This four-question triage tool demonstrates substantial inter-rater reliability, showing promise as a reliable and efficient method for triaging patients at mass gatherings. Future studies should evaluate its effectiveness in live field conditions to validate its practical impact on the triage process during large-scale events.

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Healthcare and Public Health at Rock in Rio Lisboa 2024 - a Scalable Solution for Mass Gatherings

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Summary: Rock in Rio Lisboa, a prominent four-day music festival in Portugal, attracts over 160,000 attendees each weekend across two weekends. To safeguard public health and ensure medical readiness for such a large-scale event, comprehensive strategies were developed. These strategies required close coordination among emergency services, festival organizers, healthcare providers, and public health authorities to address challenges stemming from high-density crowds, extended event hours, fluctuating weather conditions, and the potential for public health hazards.

A multi-tiered healthcare infrastructure was established on-site, which included a fully equipped medical center, advanced life support modules, and strategically positioned mobile response teams to provide immediate care. A strong focus was also placed on mental health support, with professionals trained in psychological first aid available to manage anxiety, stress, and other crowd-induced psychological concerns. Additionally, preventive measures such as hydration stations and effective crowd management were implemented to reduce the risk of serious health incidents.

Public health teams, consisting of public health physicians, regulatory authorities, and environmental health officers, enforced stringent food and water safety measures. Daily water quality assessments were conducted, and strict audits were performed on the 79 food and beverage vendors to ensure compliance with safety regulations, thereby preventing outbreaks of foodborne and waterborne illnesses. Medical teams provided care to 1,644 individuals during the event, addressing issues such as dehydration, minor injuries, and heat-related illnesses, with fewer than 1% of cases requiring transportation to external healthcare facilities.

This report illustrates the efficacy of proactive, multidisciplinary planning in managing health risks at large gatherings. The strategies employed at Rock in Rio demonstrate a scalable model for future events that prioritizes attendee well-being and resilience, showcasing how well-coordinated public health and medical interventions can minimize the impact of health crises in mass gatherings.

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What Core Competencies are Necessary to Train Mass Gathering Medical Staff? An International Delphi Study for Expert Consensus

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