

Illegal Fireworks, Hospitalization, and Amputation: National Fireworks-Related Injury Sentinel Surveillance During the Yuletide Season – Philippines, 2022

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1st SAFETYNET Conference

13 September 2023



Introduction

- Fireworks are traditionally involved in Christmas and New Year celebrations in the Philippines.
- Reduction of FWRI from 413 in 2019-2020 period to 122 in the 2020-2021 period.
- Objectives
 1. Determine the number of FWRI cases reported through the Online National Electronic Injury Surveillance System (ONEISS).
 2. Identify risk factors for hospitalization and amputation.
 3. Recommend measures for FWRI prevention and control.



Methodology

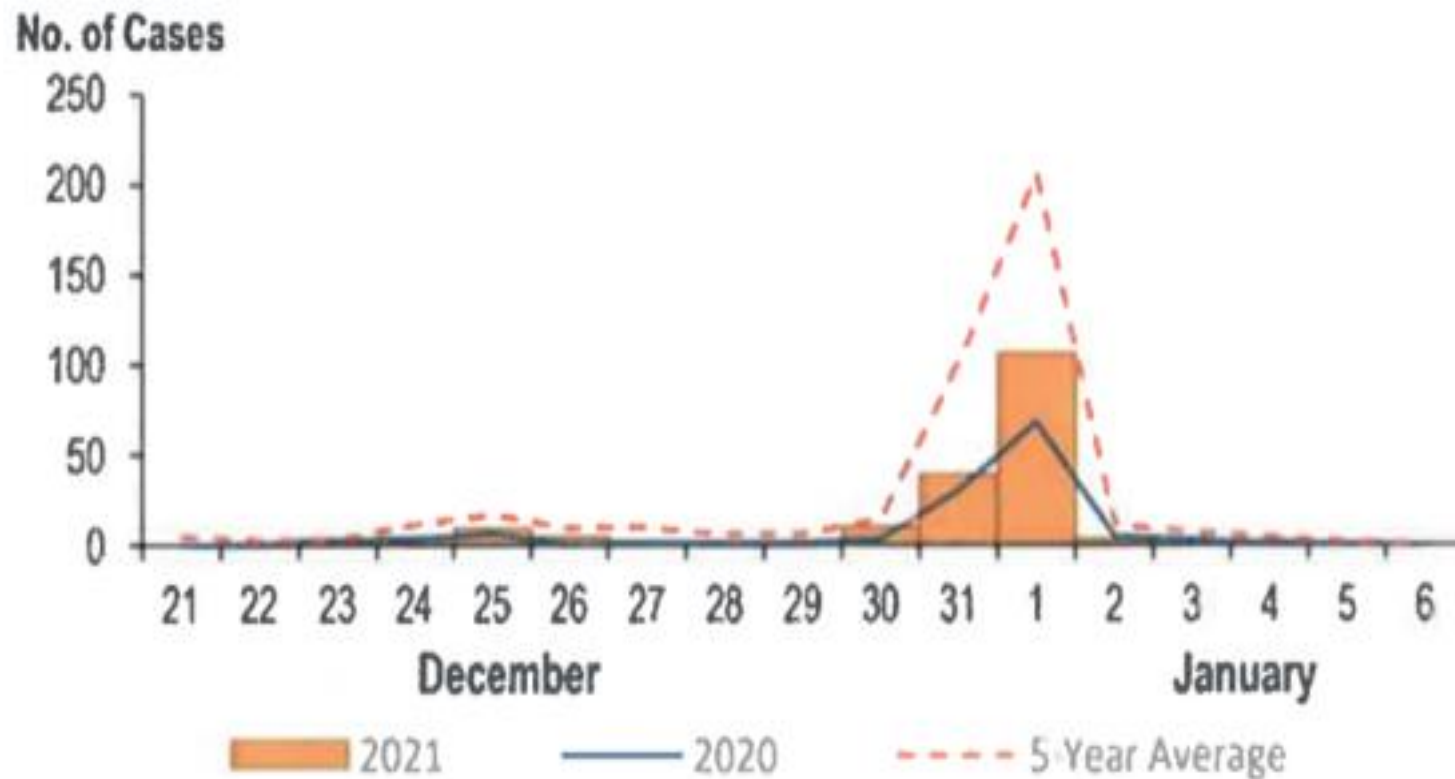


- Prospective surveillance
 - Real-time reporting by 61 sentinel hospitals nationwide through the Online Electronic Injury Surveillance System (ONEISS)
 - From 6:00AM of 21 December 2021 to 5:59AM of 6 January 2022



- Nested case-control study
 - OR and CI to for binary exposures.
 - Wilcoxon Rank Sum Test for the continuous exposure of injury-to-consultation time.

Comparison of Cases of 2021-2022 vs. 2020-2021 and Five-Year Average



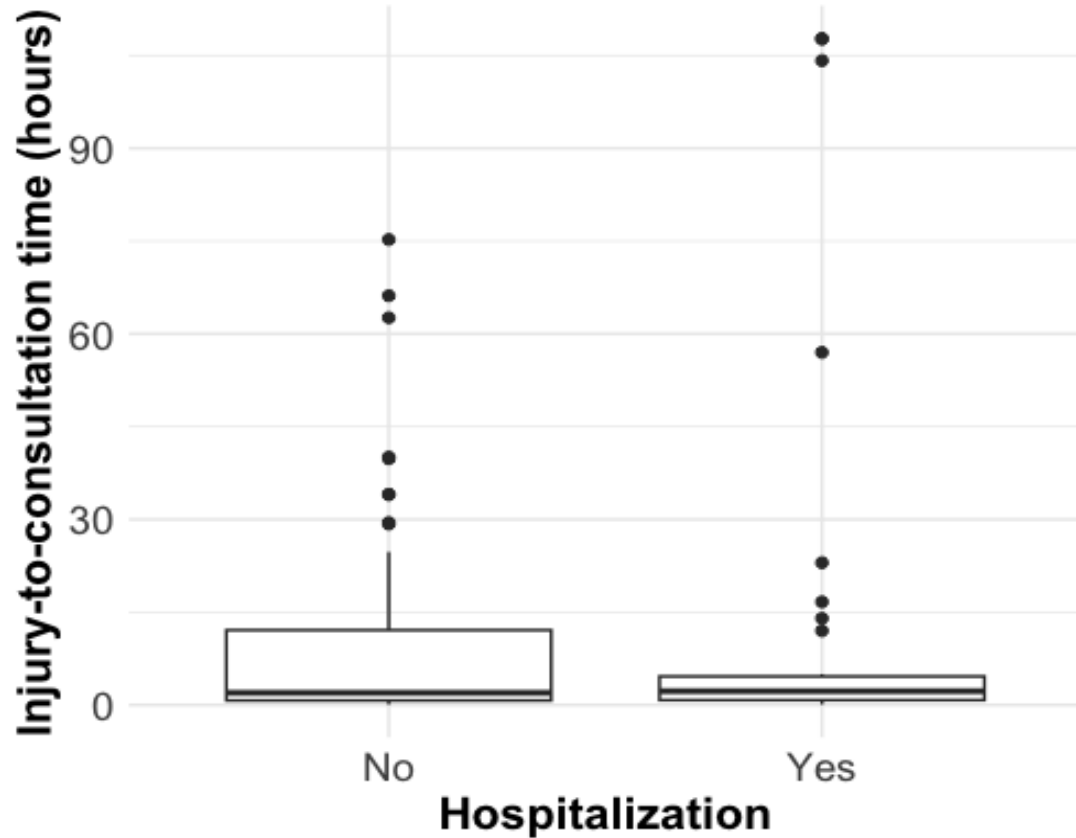
Binary Risk Factors Associated with Amputation and Hospitalization

Variable	Odds Ratio	Lower CI	Upper CI	P-value
Outcome: Amputation				
Illegal firework	2.99	1.13	8.49	0.031*
Alcohol intoxication	1.47	0.32	4.94	0.567
Awareness of IEC materials	0.50	0.19	1.27	0.151
Injury occurred at home	1.40	0.55	3.73	0.490
Outcome: Hospitalization				
Illegal firework	4.00	1.76	9.62	0.001*
Alcohol intoxication	0.43	0.07	1.59	0.273
Awareness of IEC materials	0.53	0.25	1.12	0.097
Injury occurred at home	0.57	0.27	1.21	0.150

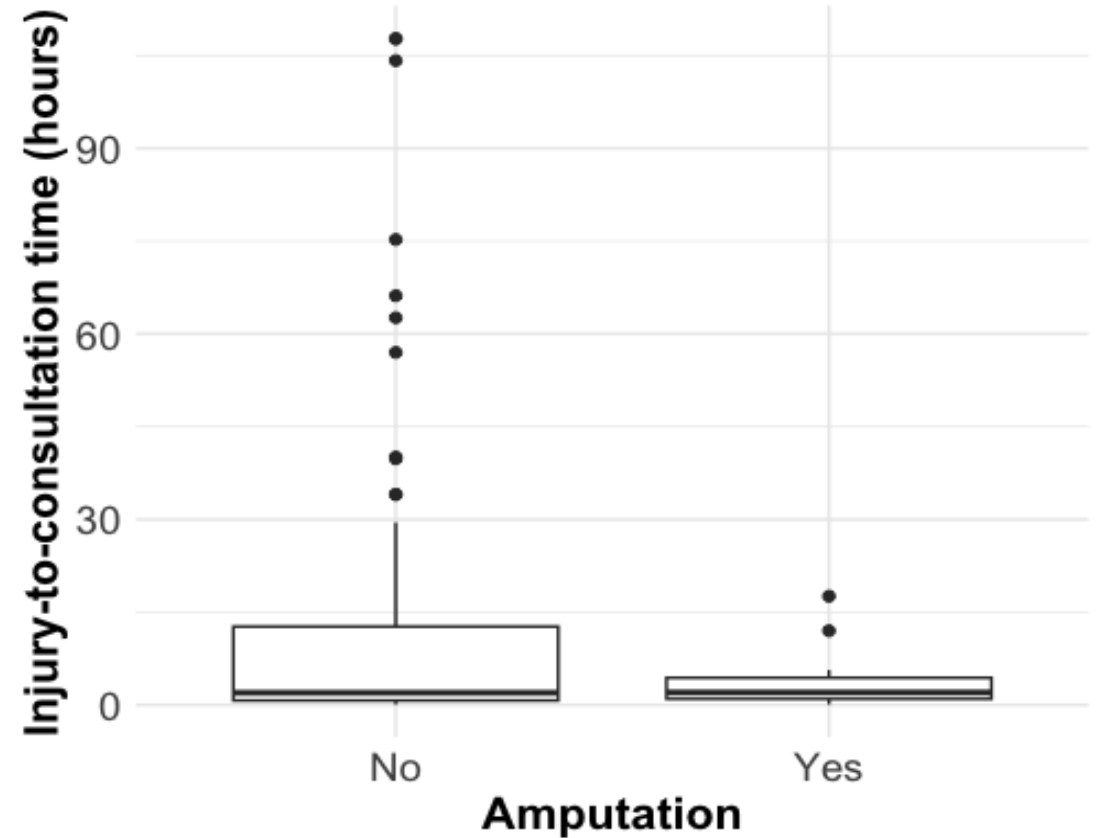
* $p < 0.05$ was considered statistically significant



Comparison of Injury-to-Consultation Time for Amputation and Hospitalization Outcomes



W = 2659.5, p-value = 0.9046



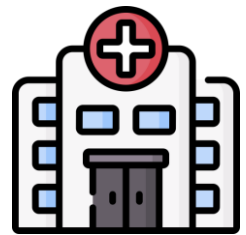
W = 1830.5, p-value = 0.5143



Conclusions

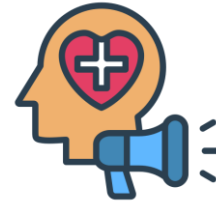


- The increase in FWRI this year compared to last year has reversed the downward trend of cases in the past decade.



- Amputation and hospitalization were significantly associated among injuries caused by illegal fireworks.

Recommendations



- **Health Promotion Bureau**

- Encourage the use of safer alternatives to fireworks
- Discourage the use of illegal fireworks.

- **Department of Education**



- Include FWRI prevention in the health curriculum across grade levels prior to the holidays.

- **Law Enforcement**



- Strict enforcement of the anti-illegal fireworks campaign.

Thank you

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