

1-2020

## War on the Wards: The collapse of health care infrastructure resulting from violent conflict

Nathan Hersh

*Thomas Jefferson University, nathan.hersh@jefferson.edu*

Amy Hagopian

Barry Levy

Follow this and additional works at: [https://jdc.jefferson.edu/si\\_phr\\_2022\\_phase1](https://jdc.jefferson.edu/si_phr_2022_phase1) Part of the [Military, War, and Peace Commons](#), and the [Public Health Commons](#)[Let us know how access to this document benefits you](#)

### Recommended Citation

Hersh, Nathan; Hagopian, Amy; and Levy, Barry, "War on the Wards: The collapse of health care infrastructure resulting from violent conflict" (2020). *Phase 1*. Paper 36.[https://jdc.jefferson.edu/si\\_phr\\_2022\\_phase1/36](https://jdc.jefferson.edu/si_phr_2022_phase1/36)

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: [JeffersonDigitalCommons@jefferson.edu](mailto:JeffersonDigitalCommons@jefferson.edu).

**WAR ON THE WARDS:**

**The collapse of health care infrastructure resulting from violent conflict**

**Nathan Hersh, Amy Hagopian, Barry Levy\***

**Introduction:** While utilizing satellite images to verify reports of hospital damage resulting from armed conflict allows for remote assessment, the use of private satellites to gain access to images prohibits widespread use. The questions this study sought to answer were: Is it possible to replicate the findings of previous reports of hospital damage that used the services of private satellite imagery using open source software, such as Google Earth? What variations exist among the different sites where damage to hospitals is visible, and what gradation is possible? Is this methodology applicable to other examples of armed conflict?

**Methods:** Using the map of bombed Syrian hospitals published and maintained by Physicians for Human Rights, hospitals were selected according to their location and the time period of the attack. These coordinates were entered into Google maps and once the attack was verified, a grade of damage was assigned. This methodology was then applied to reports of similar attacks in Iraq.

**Results:** While much information can be gleaned from open source data such as Google Earth, the level of detail in satellite images is lower and coordinates data is less specific. [Further results pending.]

**Conclusion:** There is room for the use of open source satellite technology to track and grade the damage done to health care infrastructure during armed conflict. [More conclusions pending.]