



Trusted since 1901™

Impact of a national retail pharmacy chain on continuity of care during and immediately following Hurricane Harvey

Presented at the American Public Health Association 2018 Annual Meeting; San Diego, CA, November 10-14, 2018



During a disaster, a vast pharmacy network provided patients access to essential health services and continuity of care.

BACKGROUND

- Natural disasters often disrupt the healthcare infrastructure. The ability of healthcare services, such as community pharmacies, to restore operations and provide continuity of care following a disaster is critical^{1, 2}.

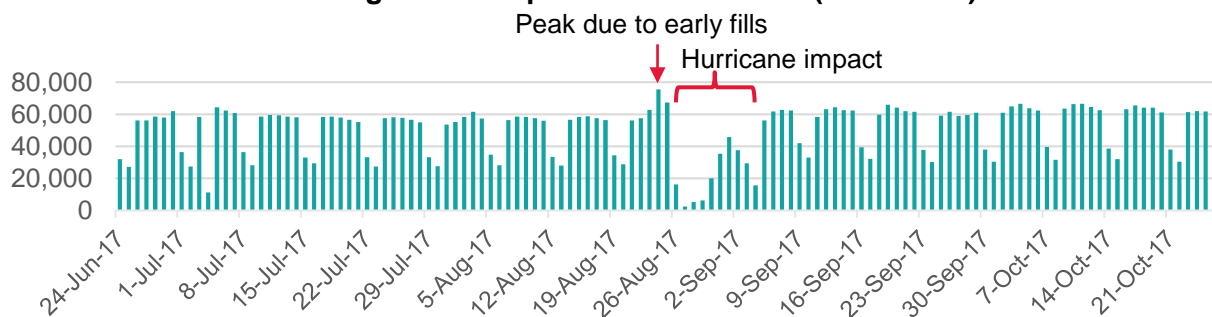
METHODS

- We conducted a descriptive statistical analysis to evaluate the ability of a large pharmacy chain to meet the public health needs of the community following Hurricane Harvey.
- We measured the frequency distributions of the number of early prescription refills, displaced patients serviced, and prescriptions and immunizations provided after the hurricane hit in August 2017. Paired student's t tests were used to assess changes in patient and prescription volume compared with a control period three months earlier.
- Utilizing Tableau, patients who relocated due to the hurricane and filled at a different Walgreens pharmacy were able to be geographically mapped based on the new store location.

RESULTS

- We identified 194 pharmacies in southeastern Texas that were directly impacted, 186 (95.9%) of which were closed for ≥ 1 day, 59 (30.4%) had notable damage.
- Patients prepared for the hurricane by refilling prescriptions early (figure 1), resulting in 27,800 additional maintenance prescriptions filled within three days prior to Harvey, compared to the control period ($p < 0.0001$).

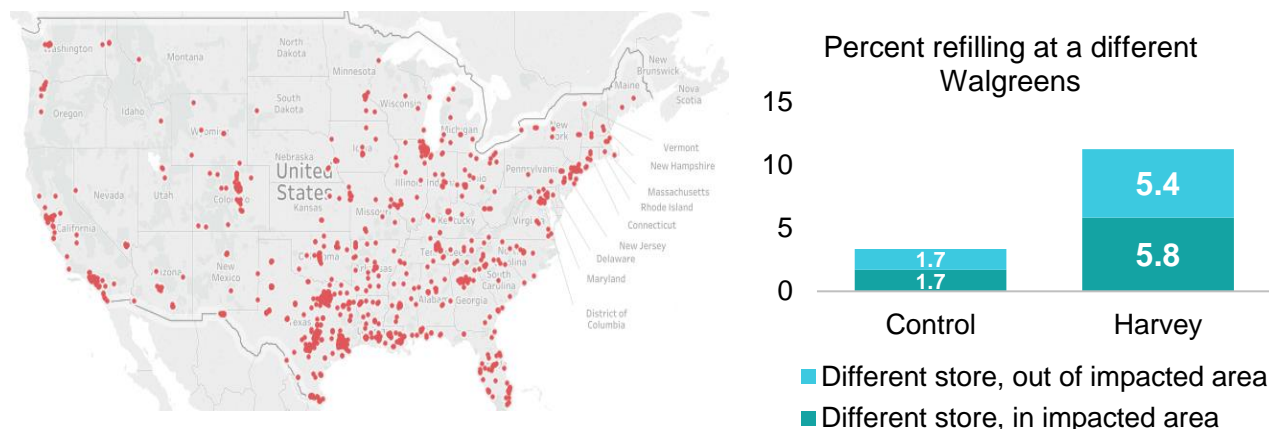
Figure 1: Script Volume – All Fills (194 stores)



RESULTS CONT.

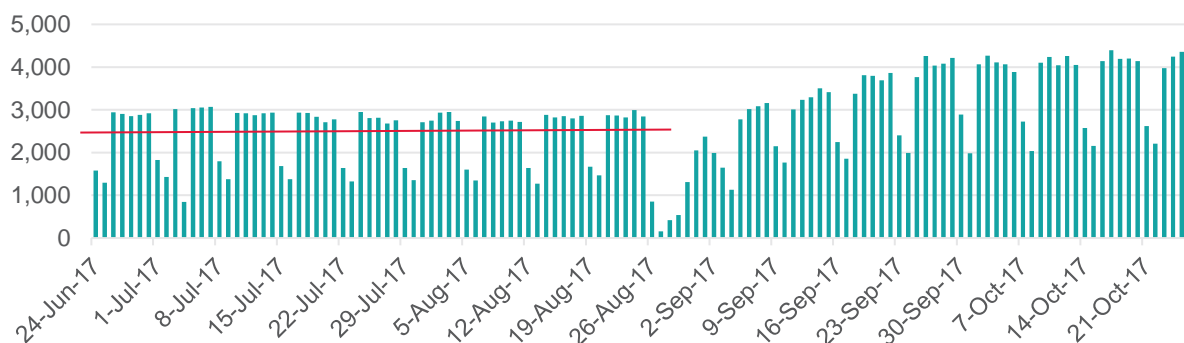
- Following Harvey, 80.4% of pharmacies reopened within 7 days and increased administration of acute medications, tetanus and hepatitis A vaccinations.
- Patients from impacted pharmacies filled prescriptions outside of their home store (n=19,892) in 49 states and Puerto Rico, a 232% increase beyond typical cross-pharmacy fill patterns (figure 2, $p < 0.0001$).

Figure 2: Patients refilling Rx in other Walgreens pharmacies in 49 states and Puerto Rico



- Impacted Walgreens stores welcomed an estimated 8,230 new patients above expected new patient volume post-Harvey (figure 3, $p < 0.0001$). Ten pharmacies provided services to evacuee shelters, servicing approximately 4,130 of the new patients.

Figure 3: New Patient Volume – All Prescriptions and Vaccinations



CONCLUSIONS

- Following Hurricane Harvey, 194 pharmacies in a large national chain were impacted by damage and/or closures.
- For patients displaced or living in hurricane-impacted areas, access to a large pharmacy network using a shared electronic record enabled continuity of care and provided essential services to address their health needs.

References:

1. Centers for Disease Control and Prevention (CDC). Hurricane Season Public Health Preparedness, Response, and Recovery Guidance for Health Care Providers, Response and Recovery Workers, and Affected Communities, 2017. MMWR Morb Mortal Wkly Rep. 2017; 66(37):995-998.
2. Tuckson, RV, Dzau, VJ, Lurie, N. Creating healthy communities after disasters. The New England Journal of Medicine. 2017; 337(19):1806-1808. doi: 10.1056/NEJMp1711834.

AMA Citation:

Singh, T., Taitel, M, Smith-Ray, R., Jiang, J, Ellis, R. Impact of a national retail pharmacy chain on continuity of care during and immediately following Hurricane Harvey. Presented at the American Public Health Association 2018 Annual Meeting; November 10-14, 2018, San Diego, CA.

Contributing Authors:

Tanya Singh, MPH; Michael Taitel, Ph.D.; Renae Smith-Ray, Ph.D.; Jenny Jiang, MS; Richard Ellis
Walgreens, Deerfield, IL

This research was funded internally by Walgreen Co. and all authors are employees of Walgreen Co.

Walgreens Center for Health & Wellbeing Research: www.walgreens.com/research
For more information on this presentation, please contact: research@walgreens.com.