Since 2015, there have been sixteen hurricanes or tropical storms resulting in disaster declarations in twelve states and three territories. Schools play a central role in disaster recovery in their communities as they are used as shelters, places where educators communicate with parents and sites that support students and families as they recover.

A research team from the University of North Carolina at Chapel Hill conducted interviews and administered surveys in school districts recovering from Hurricanes Matthew (2016) and Florence (2018). Across the data, respondents provided insight on the various ways educators used schools as sites for communal recovery following an event.

“\textit{We are the place people are going to 'til they go back home. Anything we can do to help them, we're going to try to do that.}”

- School personnel

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FIRST CASE: Hurricane Matthew  
- 2016 hurricane season  
- NC Impact: Oct. 7-8  
- At least 600,000 students affected  
- An estimated 4,000 evacuees  
- 109 shelters

SECOND CASE: Hurricane Florence  
- 2018 hurricane season  
- NC Impact: Sep. -15  
- At least 1.2 million students affected  
- An estimated 5,214 evacuees  
- 384 shelters

DATA COLLECTED:  
- 15 selected districts  
- 53 interviews from school & district administrators  
- 3,188 surveys from school & district personnel
Methodology

The team assessed recovery for schools that were disrupted by (1) Hurricane Matthew only, (2) Hurricane Florence only, and (3) both Hurricanes Florence & Matthew. As educators participated in the process of recovery in their communities, they learned valuable lessons about how to better prepare for and respond to storms. The following is a summary of educators’ recommendations on using school sites to assist with recovery.

In Their Words

“**Recovery coordination:** Directly after the storms, schools served as centers for recovery effort coordination. Communities used school buildings as emergency shelters for housing, eating, and addressing personal hygiene. Additionally, organizations like Duke Energy and the American Red Cross used these sites as a hub to manage community cleanup. Of the school leadership who were required to remain on site during shelter operations, some expressed frustration at the lack of guidance from government leaders on issues that arose around shelter management.

Recommendations to improve coordinating recovery efforts include:

- Focus on providing clarity on the role of schools in emergency and recovery efforts, e.g., involve school-site leaders in disaster planning and preparation meetings.
- Balance the needs of families in shelters with the desire to reopen schools.

**Student & family support:** Participants described the selflessness of educators who provided support to students and communities and often placed others’ needs ahead of their own. Teachers were especially active in maintaining contact with students and parents and communicating with displaced and affected families about resources and support while schools were closed.

Participants made the following recommendations for educators during recovery:

- Create ways to engage students with instructional content outside of school. Examples include borrowing community spaces to host informal lessons, offering worksheet packets at local libraries and using social media for planning.
- Build in time, after schools reopen, to address the emotional impacts of the storm with students as well as the physical needs the storm has created (e.g., clothing, clean water, food, etc.).
Communication: Overall, communication improved in the time between Hurricanes Matthew and Florence. Participants expressed having done extensive work to strengthen preparation plans, especially those affected by Matthew. Districts that were affected by Florence only took advice from neighboring counties about how to be prepared for the storm. Districts impacted by Matthew only recalled feeling confident with the protocols in place which helped mitigate some of the uncertainty around Florence. One place where communication broke down was in shelter management. Principals often struggled to know where and to whom to address questions or concerns.

Recommendations to further improve communication:
- Involve school leaders in conversations about improving disaster plans. Provide clear guidance to principals as they manage the shelter operations.
- Designate specific people at the local level to manage communication and provide support to school leaders who are managing shelters.

Disaster mitigation: Nearly two-thirds of survey respondents (65%) reported that their school districts made improvements to their emergency plans after Hurricane Matthew and 80% said that these revisions were helpful in managing recovery from Florence. Three of the most common changes to emergency plans included ways to: (1) secure supplies and facilities at school sites, (2) maintain contact with students and families, and (3) streamline communication between school leaders and county emergency staff. Participants generally felt that better emergency plans improved the time and process of recovery. Nevertheless, more than 60% of respondents still believed that their schools were only somewhat prepared for another disaster.

Recommendations for improving preparedness:
- Implement measures before a storm to decrease mold and reduce flooding in school buildings.
- Use social media to communicate with parents and students about disaster preparations.

In Their Words

“We were in constant contact with our district as far as what our needs were... They were just very intuitive to our needs and the communication was very supportive of the needs of our schools.”

-Middle School Principal

“We’ve done it so many times that we know what to do... it’s almost second nature.”

-High School Principal
Implications for Policy and Practice

As central institutions in their communities, schools play a key role in recovering from a disaster. Lessons learned from previous disasters allow schools and educators to be better prepared to mitigate disaster effects, communicate with stakeholders across the community, and coordinate recovery efforts. Better preparation allows schools to more effectively support students, families, and the community. However, challenges remain as schools balance the need to return to learning and their role in disaster recovery. Additionally:

1. **Recovery coordination** – Support schools in developing high quality emergency plans to prepare schools to mitigate damage, communicate with students and families, and participate in community recovery.

2. **Student & family support** – Ensure that counseling services are available to staff to address exhaustion and burnout. Many participants reported that teachers worked longer hours and were more stressed after the storms but that schools lacked adequate resources for mental health needs.

3. **Communication** – Policymakers can designate clear procedures and develop protocols for communication during the disaster preparation and recovery process so that schools are able to participate in the recovery while also working to reopen the school and return to education.

4. **Disaster mitigation** – Involve educators in community disaster planning, especially around the role of schools in serving as shelters and distributing resources to community members after the disaster.

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The authors are solely responsible for any remaining errors.

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