Disasters can affect anyone, anywhere, at any time. Pediatricians need to be ready to provide care for their patients even when normal operations are disrupted. Advance preparedness planning can mitigate risk, ensure financial stability, strengthen the medical home, and help promote the health of children in the community. This checklist—based on physicians’ experiences in prior disasters—can help pediatricians take realistic, concrete steps to improve office preparedness.
1. PREPARE AN OFFICE DISASTER KIT

In the event of a large-scale calamity, state and federal authorities may not be able to deliver assistance until days later, so the pediatric office should have fundamental supplies to ensure self-sufficiency for at least 72 hours [http://emergency.cdc.gov/disasters/foodwater/prepare.asp?s_cid=ccu090913_007]. Even smaller disruptions, such as an office fire, chemical spill, or power failure, might require immediate action with pre-positioned materials. Pediatricians should also prepare an Office Disaster Kit containing the supplies and equipment needed to provide basic medical care in virtually any location.

Decide which supplies you will keep in your Office Disaster Kit. Consider preparedness and evacuation supplies, shelter-in-place and immediate recovery supplies, and emergency supplies. Some examples include:

- Copies of credentials and license
- Essential business documents
  - Scanned to flash drive
- Computer backups
- Spare clothes and shoes
- Emergency toiletries
- Contact lens solution and eyeglasses
- Rain gear
- Hand sanitizer
- Sunscreen
- Insect repellent
- Duct tape
- Pocket knife
- Toilet paper
- Paper towels
- Plastic bags
- Towel
- Food
  - Granola bars
  - Dry cereal
  - Nuts
  - Dried fruits
  - Beef jerky
  - Trail mix
  - Crackers
  - Peanut butter
  - Canned goods
  - Can opener
- Water (1 gallon of water per day per person and pet for 3 days)
- Blanket
- Cell phone charger
- Flashlight
- Radio
- Spare batteries
- Extension cords
- Cash
- Stethoscope
- Otoscope (battery-powered)
  - And specula
- Ophthalmoscope (battery-powered)
- Spare bulbs
- Tongue blades
- Thermometer
- Tape measure
- Calculator
- Reference handbook
- Prescription pad
- Pen/pencil
- Paper/notebook
- Gloves
- Masks
- Portable scale
- Alcohol wipes
- Bandages
- Antibiotic ointment
- Topical steroid cream
- Albuterol metered-dose inhaler or nebulizer solution
- Ibuprofen and acetaminophen
- Diphenhydramine
- Ceftriaxone
- 1% lidocaine
- Saline solution
- Oral or injectable steroids
- Syringes and needles
- Sharps container
- Toys for children
- Diapers, baby wipes, baby food, and formula

Pack supplies in easily transportable containers (e.g., camera bag, backpack, tote bag, suitcase with wheels, plastic bin with lid), and store these in a safe, accessible location known to other employees.

Keep a list of the supplies in the Office Disaster Kit, along with a checklist and schedule for checking expiration dates.
2. STORE ESSENTIAL SUPPLIES AND MINIMIZE RISK TO EQUIPMENT

Thoughtful placement or storage of high-importance equipment and supplies can reduce risk and preserve maximal office functioning in case of physical damage to the office.

- Identify essential, high-value, or irreplaceable items.
- Organize the office to store supplies appropriately and minimize risk to equipment. Determine where and how these items might be moved in preparation for disaster. Designate which staff member(s) will be responsible for this task.
- Copy equipment warranties, model numbers, manufacturers, purchase receipts, and suppliers/servicers. This information may be necessary if equipment needs to be repaired, replaced, or declared lost.

3. ATTEND TO FACILITY ISSUES

Consider the steps that you and your office staff can take to mitigate damage to your office space, building, or facility.

- Investigate structural issues; walk around the office/building to identify any needed repairs. Pay particular attention to potential risks based on disasters that would be more likely to strike your area (eg, structural stability in case of earthquake; flammable exterior materials in case of wildfire).
- Record contact information for utility companies. Record shutoff procedures and locations for water, electricity, and gas as applicable. Contact utilities in advance to be listed for priority restoration of service.
- Develop contingency plans for office repairs. If you lease your space, discuss with your landlord how repairs will be done. If you own your space, research and select contractors.
- Research options for generators, including wattage, fuel source, and portable versus built-in. If using a portable generator, develop a plan and procedure for fueling it, including assigning responsibility, and ensure that employees and staff who will be operating it are familiar with it in advance. Research how to use a generator safely; see www.redcross.org/prepare/disaster/power-outage/safe-generator-use.
- Consider transportation options for a post-disaster environment, such as a bicycle, or the availability of gasoline for automobiles.
- Research potential alternate practice sites in case the primary office is damaged. Consider drafting a memorandum of understanding or similar document and retaining emergency contact information for the owner of the alternate site(s).
4. PROTECT PATIENT RECORDS AND OFFICE FILES

If paper or electronic records are damaged or lost, business operations and patient care may be significantly compromised—perhaps even irrevocably. Sound backup planning includes knowing what records to store as well as multiple ways to store them. This applies to vital office documents and patient charts and records.

- Research potential ways to record crucial health data or records, files, scan documents, and backup files. Consider an automatic backup system. Have multiple backup methods for redundancy. Keep at least one copy of all data off-site, in a different physical location from your office, preferably distant to your community. Also consider simultaneous online backup.

Sample backup options

- Online (cloud) storage.
- Remote server.
- Portable hard drive.
- Tape drive.
- Flash drive/memory card.

- Scan vital business documents, such as a recent bank statement, tax return, business permit, and letters of incorporation. Record contact information for your bank headquarters, local branch, and business loan officer.

- Record insurance policy numbers, agent contact information, and any other relevant information. Scan insurance policy documents and store on a flash drive.

- Test electronic backups regularly to make sure they are accurate and complete. Develop and test data recovery procedures. (Keep in mind that large computer systems or storage may take significant time to restore.)

5. REVIEW INSURANCE COVERAGE

Adequate insurance can reduce physical and operating losses during a disaster, but make sure coverage is appropriate and current.

- Locate and review your office insurance policies. Pay particular attention to exclusions, limits, and deductibles. Check if you have coverage for
  - Vaccines and spoilage
  - Business interruption/income replacement
  - Civil disruption
  - Unique hazards (eg, flood, earthquake)

Contact your insurance agent to discuss coverage and benefits.

- Do you need to increase coverage limits?
- Do you have any superfluous or unnecessary coverage?
- Do you need to add any particular coverage riders?

Prepare a paper or video office inventory. Scan documentation onto a portable drive or online backup service.

CONTACT YOUR INSURANCE AGENT TO DISCUSS COVERAGE AND BENEFITS.
6. PREPARE OFFICE STAFF/EMPLOYEES

Effective preparedness planning requires the cooperation and input of everyone in your office. Promote team building and buy-in from colleagues and staff by discussing roles, responsibilities, and expectations in advance.

- Review disaster preparedness plan details with your staff, including where the planning materials, essential supplies, and the Office Disaster Kit (if applicable) are kept. Solicit staff input to develop effective and practical preparedness.
- Determine organizational strategies, priorities, contingency plans, and systems for decision-making. Assign a chain of command. If applicable, consider the implications of having multiple practice sites.
- Collect and share staff personal contact information (eg, cell phone numbers, e-mail addresses, emergency contact information). Encourage staff to store this information on their cell phones as well as in separate written documents.
- Discuss with staff the office preparedness, response, and recovery procedures in case of crisis or disaster. Make sure all relevant responsibilities are assigned and all personnel are aware of their responsibilities. Remember that each person’s primary responsibility is to keep himself or herself and his or her family members safe, and that this will take priority over office or work-related tasks.
- Conduct practice drills to test plan details.
- Encourage staff to develop their own personal preparedness plans. Consider how your office will help staff address their family needs.
- Be prepared to address human resources issues, such as how absences, pay, and benefits might be handled in case of disaster.

7. ENSURE EFFECTIVE COMMUNICATIONS

Communications are one of the most critical—and frequently problematic—concerns during a disaster situation. Anticipate how you might communicate, to whom, and what messages you want to provide in a crisis.

Review and investigate options for communicating with patients and other community members. Sample communication methods include

- Word of mouth
- Paper flyers or other signs (eg, plywood)
- Telephone forwarding
- Telephone answering service or messages (voice mail)
- Text messaging
- E-mail
- Notification via hospital, law enforcement, or governmental officials
- Local media (eg, TV, radio, newspaper)
- Social media (eg, Facebook, Twitter)
- Ham radio
- Satellite phone

Consider which methods of communication might apply in various situations. Prepare for each situation by purchasing needed supplies or discussing needs with communication providers (eg, ham radio operators, local media). Discuss communication plans with staff, determine who will issue communications and conduct media relations, and review basic guidelines and office policies on messaging.
8. DEVELOP SERVICE AND EVACUATION PLANS

Discuss contingency plans with partners and colleagues for a variety of situations. Identify the criteria that you and your employees will need to make key decisions during a disaster.

Delineate what services might be provided under increasingly severe conditions. Consider developing a tiered response, taking into account available utilities, supplies, condition of the facility (or facilities), patient demand, and external conditions (e.g., public health emergency, declared evacuation, state of emergency).

Determine who will be notified in different crises or disaster situations (e.g., when the practice remains open, when services will be provided at an alternate site, when the practice is closed). Develop plans to communicate practice changes and updates with staff, families, and community members (also see number 7, Ensure Effective Communications).

Identify patients who are technology or otherwise dependent and share information with utilities, emergency medical services personnel, and special needs shelters. Discuss contingency plans with family and school representatives.

Develop a plan to work with families to coordinate completion of an emergency information form for each child with special health care needs. See http://pediatrics.aappublications.org/content/125/4/829.full.

Consult local hospitals where you have privileges to learn their disaster plan procedures, focusing on your expected responsibilities as medical staff. Ask how hospital disaster decisions will be made and communicated, as well as under what situations inpatients might be discharged early, transferred or redirected to other institutions, or treated in place.

Reach out to other health care professionals to share or integrate preparedness plans to support each other while strengthening health care delivery for the entire community.

9. CONSIDER HOW TO HANDLE INFECTION CONTROL

Pediatric office practices should plan for emergencies that might involve a virus or other infectious agent. Remind staff of the importance of implementing infection control practices on a day-to-day basis and determine office protocols for various types or levels of outbreaks.

Get vaccinated for seasonal influenza and urge others to do the same! Health care personnel should get the influenza vaccination every year so they do not get sick with influenza or give influenza to their patients. As health care professionals, we fail to lead by example if we urge others to be vaccinated for seasonal influenza but do not require it of ourselves.

Annually train staff on standard precautions, infection control, seasonal and pandemic influenza, and the importance of immunizations.

Develop an office respiratory protection plan delineating the use of masks, gloves, hand sanitizers, tissues, etc. Provide or update fit testing for staff who use (or might need to use) N95 respirators.

Design an office management plan for use in a pandemic that addresses office flow issues, including how to segregate patients with influenza-like illness or respiratory symptoms from others. Consider surge issues and how less time-critical visits such as checkups might be postponed.

Develop a plan for rapid triage using telephone screening and in-office protocols.

Determine how routine cleaning and disinfection strategies (and the process for ordering relevant supplies in advance) might be enhanced during an outbreak.

Identify ways to collaborate with other practice staff or building personnel on sharing of staff, supplies, or office space during times of staff illness or absenteeism. Consider options for telecommuting, such as nurse telephone triage from home.

DISCUSS CONTINGENCY PLANS WITH FAMILY AND SCHOOL REPRESENTATIVES.
10. PLAN FOR CONTINUING OPERATIONS

A disaster or pandemic can significantly impair your revenue, billing, and collections and therefore your ability to pay staff and vendors. Plan ahead to minimize business disruption and financial liability to keep your practice operating under adverse conditions.

- Compile a list of vendors with whom you have accounts, such as advertising, medical supply companies, business credit cards, cell phone service, and Internet provider. Include information on vaccine manufacturers and facility utilities from the appropriate sections of this kit as well. Record account and telephone numbers for customer service. If this information is already stored in an accounting program, make sure data are current and backed up off-site on a regular basis.

- Record contact information and provider numbers for payers with which you are contracted, including commercial health insurance companies, State Children’s Health Insurance Program, and Medicaid. Consider scanning copies of current contracts. Include contact information for any billing service, clearinghouse, or practice management service.

- Back up payroll information and employee W-9 forms, as well as contact information for any payroll service you may use.

- Determine which staff member(s) will be responsible for communicating with vendors and paying bills after a disaster or negotiating alternate payment arrangements.

- Consider alternate billing and collection procedures in case usual systems are disrupted.

- If not already done, consider securing a line of credit in case you need extra operating funds.

- Consider opening a second business account at a different bank in case of disruption to the first bank or your local branch.

- Develop a plan to use paper checks or wire transfers when electronic deposits for payroll are interrupted.

11. DEVELOP A PREPAREDNESS PLAN FOR YOUR HOME AND FAMILY

Don’t neglect your personal preparedness. Planning is just as important for your home and family as it is for your office and practice. Good planning will provide more confidence and peace of mind in a disaster situation, enabling you to concentrate on the most critical issues. Personal preparedness will also help you better understand the issues that your staff and clients face, and it will help you encourage the families that you serve to develop their own disaster plans.

- Review the AAP Family Readiness Kit (www2.aap.org/family/frk/aapfrkfull.pdf), Federal Emergency Management Agency Ready Campaign materials (www.ready.gov), or American Red Cross Web site (www.redcross.org) for recommendations on how to prepare your home and family.

- Make a list of possible contacts or destinations to consider in case of an evacuation (eg, family, friends, colleagues). Discuss planning with your family in case of an evacuation. If your family will not be evacuating, where will you be staying? Home? Community shelter? Office? Will your family be allowed in the hospital if you need to be stationed there? If you have pets, how will you provide for their safety?

- Buy needed home supplies for a disaster kit.

- Scan vital home documents and store them in multiple ways.

- Review home and property insurance coverage, including special hazards (eg, wind, flood, earthquake).

Pediatricians can make a personal difference by discussing preparedness issues with patients’ family members.
12. HANDLE VACCINE ISSUES

Vaccines are a key part of pediatric practice and a significant investment. In case of power failure or facility damage, it is important to have a plan to keep these assets safe.

- Designate an alternate site with 24-hour access where vaccines and diluents can be safely stored (e.g., community hospital, local health department). View “AAP Immunization Resources Storage and Handling Series: Disaster Planning” ([www.aap.org/en-us/Documents/immunization_disasterplanning.pdf](http://www.aap.org/en-us/Documents/immunization_disasterplanning.pdf)) for considerations and location options. Consider signing a memorandum of understanding ensuring that vaccines can be stored there if necessary.

- Maintain an adequate supply of gel packs and insulated boxes or a cooler for transport.

- Record vaccine manufacturers’ and local representatives’ contact information.

- Record and update vaccine inventories regularly.

The Centers for Disease Control and Prevention (CDC) requires that Vaccines for Children (VFC) providers develop and follow a written emergency vaccine storage and handling plan. This plan should be simple, and the process outlined in the plan should be clear and concise. Comprehensive vaccine management protocols will help practice staff address future vaccine supply challenges (i.e., vaccine shortages or supply allocations) and help ensure appropriate vaccine handling procedures. To maintain potency and efficacy of vaccine products, they must be stored at the temperatures specified by the manufacturers at all times. Storage unit malfunction, power outages, natural disasters, and other emergencies may jeopardize a practice’s ability to maintain vaccines at appropriate temperatures. Please see the “AAP Immunization Resources Storage and Handling Series: Disaster Planning” ([www.aap.org/en-us/Documents/immunization_disasterplanning.pdf](http://www.aap.org/en-us/Documents/immunization_disasterplanning.pdf)) tip sheet and the CDC Vaccine Storage and Handling Toolkit ([www.cdc.gov/vaccines/recs/storage/toolkit](http://www.cdc.gov/vaccines/recs/storage/toolkit)) for complete information.

- Have a backup energy source (generator) and sufficient fuel to continuously run the generator for 72 hours or more.

- Have a written emergency vaccine storage and handling plan posted where staff can easily find it.

- Keep a record of up-to-date phone numbers for vaccine distributors, manufacturers, and VFC coordinators.

- Ensure all staff read and understand the emergency vaccine storage and handling plan.

- List the name and contact information of a local refrigerator or freezer repair shop that could potentially fix a failed unit.

Develop an Emergency Plan

- Develop a written procedure describing storage or transport of vaccines in the event of a power outage or catastrophic event. Designate staff members to be responsible. Include a contingency plan in case time or situation precludes moving vaccines to a different location.

- Develop written protocols and a list of vehicles and drivers for transporting vaccines to and from the alternate vaccine storage facility.


- Communicate to staff where everything for safe vaccine transport is kept.

Information to Include in an Emergency Plan

- Written procedures for managing potentially compromised vaccines.

- Contact information for vaccine manufacturers and VFC coordinators.

- Written instructions for entering the facility or contacting people at the identified vaccine storage facility in an emergency or during times when the building is closed. For more details, see the CDC Vaccine Storage and Handling Toolkit ([www.cdc.gov/vaccines/recs/storage/toolkit](http://www.cdc.gov/vaccines/recs/storage/toolkit)).

During a Power Outage

- Do not open freezers and refrigerators except to transport vaccines to an alternate storage location, if alternate storage with reliable power is available. Refrigerators will generally be warmer than 8°C (46°F) within 4 hours of a power outage. If it is likely that the power will be off for more than 4 hours, plan on moving vaccines to a safer location.

- Continue to monitor temperatures. If possible, do so without opening the refrigerator or freezer door. View “AAP Immunization Resources Storage and Handling Series: Data Loggers and Vaccine Monitoring” (www.aap.org/en-us/Documents/immunization_dataloggers.pdf) for more information on vaccine monitoring.

- Do not discard vaccines that have been warm, but keep good notes on what transpired. Most vaccines are heat tolerant but will not survive freezing. Immediately move all compromised vaccines into a container and keep refrigerated vaccines between 2°C and 8°C (35°F and 46°F) and frozen vaccine at or below -15°C (≤5°F). Mark the vaccines as “DO NOT USE.”

- Call vaccine distributors and VFC coordinators to cancel any upcoming vaccine deliveries.

Once Power Is Restored

- Record the temperature in the vaccine storage unit as soon as possible after the power has been restored. Continue to monitor and record. It can take a domestic refrigerator 4 to 8 hours to cool below 8°C (46°F).

- Record the duration of any temperate excursions observed.

- Do not administer or discard any vaccine that has been exposed to temperature excursions until speaking with the proper authorities. View “AAP Immunization Resources Storage and Handling Series: Disaster Planning” (www.aap.org/en-us/Documents/immunization_disasterplanning.pdf) for more details.

- Notify vaccine distributors or VFC coordinators to resume vaccine deliveries.


13. PROMOTE PROFESSIONAL SELF-CARE STRATEGIES

Identify mechanisms to allow staff to attend to personal/family needs (eg, arrange for home repairs) in the immediate aftermath of a disaster or to address a potential surge in patient care needs (see number 9, Consider How to Handle Infection Control).

Some examples include

- Establishing arrangements for full-time or part-time substitute/supplemental staffing
- Exploring feasibility for collaborative agreements with other practices, hospitals, or clinics in the region to permit sharing of staff or resources
- Reassigning responsibilities among current staff and cross-training of essential tasks to be better prepared
- Developing policies related to emergency release time

These approaches aim to minimize the need for staff to work in austere conditions for excessively long shifts or with insufficient support that may contribute to healthcare professional stress.

- Consider mechanisms to provide emergency financial support or loans to staff members who may be personally affected by a disaster.

- Let staff know that you are supportive of their personal and family needs (before and after a disaster).

- Consider establishing an employee assistance program or compiling a list of local mental health resources covered by staff insurance plans that can provide assistance to staff and their family members in the aftermath of a disaster.

- Identify appropriate handouts, videos, or other psychoeducational materials that address personal and professional self-care in the aftermath of a disaster and how supervisors can assist staff in this context.

- Explore with your staff techniques and resources to minimize compassion fatigue.

- Provide training in psychological first aid and bereavement support to all office staff that can be used not only with patients and families but also with other staff members (www.aap.org/disasters/adjustment).

- Form liaisons with mental health professionals familiar with bereavement and trauma care who can provide clinical guidance and support to staff in the aftermath of a disaster.