American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

Testimony of Steven E. Krug, MD, FAAP
On Behalf of the American Academy of Pediatrics

Before the U.S. Senate
Health, Education, Labor and Pensions Committee

"Facing 21st Century Public Health Threats: Our Nation's Preparedness and Response Capabilities, Part 2"

January 23, 2018

Chairman Alexander and Ranking Member Murray, thank you for the opportunity to speak here today about our nation's preparedness and response capabilities. My name is Dr. Steven Krug. I am head of the Division of Emergency Medicine at Ann & Robert H. Lurie Children's Hospital of Chicago and Professor of Pediatrics at Northwestern University Feinberg School of Medicine in Chicago, IL. I am board certified in Pediatrics and Pediatric Emergency Medicine. I am here today in an official capacity representing the American Academy of Pediatrics where I serve as chair of its Disaster Preparedness Advisory Council. The American Academy of Pediatrics (AAP) is a non-profit professional membership organization of 66,000 primary care pediatricians and medical and surgical pediatric subspecialists dedicated to health and well-being of children.

By way of additional background, I also serve as chair of the Assistant Secretary for Preparedness and Response (ASPR) National Biodefense Science Board, now referred to as the National Preparedness and Response Science Board (NPRSB). Additionally, I am a member of the Food and Drug Administration's Pediatric Advisory Committee Ethics Subcommittee. I am not representing either of these entities here today.

I applaud the work of this committee for strengthening and improving our nation's public health and medical preparedness with the *Pandemic and All-Hazards Preparedness Reauthorization Act (PAHPRA) of 2013.* In particular, AAP thanks the leadership of members of this Committee for including first-ever provisions for children in the last reauthorization. Those changes have helped to make the needs of children in emergency planning and response a higher priority in our federal agencies.

As we heard last week from Drs. Bob Kadlec, Stephen Redd, and Scott Gottlieb, each of our key federal health care agencies - ASPR, the Centers for Disease Control and Prevention (CDC), and the Food and Drug Administration (FDA) - has an important and distinct role to play in ensuring our public health and medical sectors are better prepared to meet the needs of all Americans, including, of course, children before, during, and after a disaster. The leaders of these federal agencies, present and past, and the countless hard-working, dedicated federal employees they oversee serve as the backbone of our nation's 24/7 emergency readiness and response capacity and deserve much credit for their work on behalf of all Americans. AAP values its close partnership with these federal agencies and others and we look forward to continuing to work collaboratively with them.

By most accounts, the frequency, severity, and cost of disasters and emergencies are increasing, meaning they will remain a significant threat to the health and safety of communities and our nation. As such, maintaining and expanding the federal government's strategic focus on multi- and all-hazard approaches that address both routine and health security related needs is critical. This means continuing to engage all stakeholders, including public health, medical, mental and behavioral health services, academia, industry, and day-to-day emergency medical and trauma services in strengthening "foundational" programs core to preparedness.[i] Emergency medical services (EMS), trauma and burn centers, and our nation's children's hospitals must be strong and engaged.

Healthcare systems that are regularly tested may be the most effective and reliable in a response. In a sense, the concepts of preparedness and response are actually interchangeable. The Centers for Medicare and Medicaid Services (CMS) Emergency Preparedness Rule which sets national emergency preparedness requirements for Medicare and Medicaid-participating providers and suppliers is critically important for ensuring adequate planning for both natural and man-made disasters, and coordination with federal, state, tribal, regional, and local emergency preparedness systems. However, investments in

preparedness, maintenance of a stable workforce, and sustainment of core response capabilities can be challenging. Major reductions in federal spending on public health and medical preparedness as well as intermittent surges around specific disasters or spikes in seasonal influenza like we are currently experiencing combine to adversely impact the preparedness of the nation.

Physician and health care professional workforce burnout and inability to practice self-care in the face of a disaster, one in which health care providers and their families may have personally experienced injury or loss, must be addressed as part of medical preparedness and response.

At a population level, we should strive for healthier communities pre-disaster which will reduce the burden on the health care system during and after a disaster. This means ensuring access to affordable medical and mental or behavioral health care and preventive services and reducing or eliminating health care disparities in all populations.

Ensuring the Health of Children in Disasters

Children account for twenty-five percent of the population and their unique vulnerabilities mean that preparedness and response activities should account for their distinct needs. Children are not little adults and the factors a state, city, hospital, or community must consider when planning for children may differ when considering the care needs of infants versus preschool-aged children versus adolescents. Additionally, children spend much of their day separated from their parents at school or in child care, making issues of preparedness planning in these settings, including training exercises and drills, mechanisms for child tracking and timely family reunification, and, consent for treatment, if needed, particularly important.

At the federal level, AAP remains concerned about the appropriateness of the current statutory definition of and references to “at-risk individuals” throughout PAHPA. According to ASPR, at-risk individuals are children, older adults, pregnant women, and individuals who may need additional response assistance. This includes but is not limited to individuals with disabilities, individuals who live in institutional settings, individuals from diverse cultures, individuals who have limited English proficiency or are non-English speaking, individuals who are transportation disadvantaged, individuals experiencing homelessness, individuals who have chronic medical disorders, and individuals who have pharmacological dependency. By some estimates, this could amount to fifty percent of the total population.

The expertise needed to successfully plan for and respond to a public health emergency involving a person with a pharmacological dependency is very different from that of a child or of a pregnant woman. Given the discretion allowed under current requirements for states and cities in the CDC’s Public Health Emergency Preparedness Program (PHEP), a jurisdiction can “check the box” by including one of these categories in disaster drills and exercises. In fact, in a PHEP Impact Assessment conducted in 2014, of the select PHEP capabilities reported on, the two poorest performing measures were those that directly related to children: did the grantee have a sufficient plan for vulnerable populations (55%) and did the grantee have patient tracking capability for family reunification (47%). By contrast, all other measures were met 73 to 100 percent of the time.

AAP would urge federal agencies including ASPR to move away from generic terms like “at risk” or “vulnerable” populations. When agencies or grantees are forced to address this broad category, the

subpopulations contained within may be overlooked. We would suggest that ASPR consider creating a position of Director of Pediatric Preparedness and Response who is empowered and adequately resourced to work within ASPR, with its grantees, and with HHS partner agencies to improve our nation's preparedness and response for children.

Healthcare System Preparedness, Response, Recovery, and Resilience

At baseline, our health care delivery system is fragile, decentralized, frequently uncoordinated, and regional. Financial drivers in the health care system are not aligned with the need for facilities to be prepared for emergencies and surges in the number and acuity of patients seeking care. Cost-reduction efforts within health care systems have led to skilled staffing shortages and leaner stockpiles of routine supplies, medications, and key equipment. This environment has caused hospital inpatient facilities to operate much closer to full capacity and emergency department overcrowding, driven largely by inadequate inpatient capacity, leads to poor surge capacity. So, when disasters occur, it's not hard to see why many communities struggle to respond and why some may never recover.

Changes to the economic environment are creating serious challenges for scientific research and innovation and are reducing public health system stability. In addition, the health care sector is in a state of rapid change, with adaptations underway to health care delivery models, health care systems, and health care financing. In this state of rapid change and uncertainty, with decreasing funds and increasing fiscal pressures, economic or service delivery disengagement by public and private sector safety net providers and other partners critical to health security (e.g., health departments, hospitals, academic medical centers, biotechnology and pharmaceutical industries) is reported from the field. In addition to the effect of economic change on individual sectors, these same stressors have the potential to further harm relationships among the various components of the larger system including federal-state-local-private sector interactions. These relationships are critical to an effective response.[ii]

With respect to children, the majority of ill and injured children seek care at the closest emergency department in their community. Eighty-nine percent of children in the emergency care system are seen in non-children's hospitals.[iii] It is critical that all EDs have the appropriate resources and staff to provide effective emergency care for children but many see few pediatric patients per day – roughly 50% of U.S. emergency departments provide care for fewer than ten children per day. On a nationwide level, AAP, along with the American College of Emergency Physicians, the Emergency Nurses Association, and other professional societies, issued guidelines on the care of children in the emergency department to aid all emergency departments in what to prioritize for children.

AAP thanks Senators Orrin Hatch and Bob Casey for their strong leadership on the federal Emergency Medical Services for Children, or EMSC, Program, the only federal program that focuses specifically on improving the pediatric components of the emergency medical services (EMS) system. Under the leadership of the EMSC Program at the Health Resources and Services Administration, in partnership with several professional societies, we now have the National Pediatric Readiness Project, a multi-phase quality improvement initiative to ensure that all U.S. emergency departments have the essential guidelines and resources in place to provide effective emergency care to children.

Of the 4,146 emergency departments that participated in the 2013 National Pediatric Readiness assessment, the overall hospital Pediatric Readiness score was 69% but only 47% of participants responded that they have a disaster preparedness plan in place that addressed the unique needs of children.[iv] The project found that the presence of a physician and nurse pediatric emergency care

coordinator (PECC) was associated with a higher Pediatric Readiness score compared with no PECC. The potential for improving patient outcomes based on the findings of the National Pediatric Readiness Project is great. These findings also have important implications for the Hospital Preparedness Program (HPP) and ASPR's broader healthcare system preparedness efforts.

In order for the medical care system to respond, recover, and ultimately be resilient, preparedness planning must include not just public health and hospitals but also the primary care medical delivery system. While that system is largely in the private sector, it cannot be ignored. Primary care providers, such as pediatricians, are on the front lines of all emergencies. The administration of vaccines, provision of anticipatory guidance and appropriate screenings, and the counseling of patients and families are some of the vital functions of primary care, the continuity of which are all highly relevant to public health emergencies.

While the opportunity exists to improve further upon present disaster planning and response capabilities, we must also focus on recovery and the components of resiliency. Community resilience relies heavily upon the resilience the healthcare sector, a key pillar. As such, the federal government should support the ability of patients to return to their regular source of local medical care. After a disaster, medical offices and equipment are often damaged, and loss of power can lead to spoilage of vaccine doses. Lack of usable or safe office space and staff, housing, water, power, and telephone service have repeatedly hindered physician efforts in reestablishing practices. Further, local physicians may find themselves competing for patients with free or temporary clinics set up in the aftermath of the disaster. In the face of these circumstances, many physicians are forced to close their practices and leave the community. The federal government should develop formal incentives and assistance programs to provide systematic, long-term, financial stability to private physician practices after disaster strikes.[v,vi] Collaboration between ASPR and the Centers for Medicare and Medicaid Services (CMS) is critical. As the federal agency responsible for payment for medical services and for ensuring families affected by disasters seamlessly continue their insurance coverage under Medicaid and CHIP or become newly eligible for Medicaid or CHIP because of a disaster, CMS and ASPR must work closely together.

After an emergency, physicians are often eager to provide medical assistance to affected communities. While the National Disaster Medical System (NDMS) has an important role to play in our nation's emergency medical response, it lacks the size and quantity of needed specialists to reach all communities that are or could be affected by disasters. AAP encourages ASPR to consider a more efficient infrastructure so that, in event of an emergency, physicians eager to provide volunteer medical services have a way to do so quickly.

Medical Countermeasures for Children

Significant strides have been made over the past ten to fifteen years to develop medical countermeasures (MCMs) to address potential disaster hazards, including chemical, biological, radiologic, and nuclear threats.[vii] Yet, major gaps still remain related to MCMs for children, a population highly vulnerable to the effects of exposure to such threats, because of their physiology and developmental differences from adults. Many vaccines and pharmaceuticals approved for use by adults as MCMs do not yet have pediatric formulations, dosing information, or safety information. As a result, the nation's stockpiles and caches where pharmacotherapeutic and other MCMs are stored are less prepared to address the needs of children compared with those of adults in the event of a disaster.

Congress made important changes in the last PAHPA reauthorization to Emergency Use Authorizations (EUAs) that allow an EUA to be issued for preparedness purposes.

The Strategic National Stockpile (SNS) is currently underfunded to support the necessary stockpiling and replacement of MCMs as well as to support research, development, and procurement of pediatric MCMs. We must ensure that the SNS is adequately funded to meet these needs and that safety and dosing for children are considered.[viii]

Recommendations for the Next Reauthorization of the *Pandemic and All-Hazards Preparedness Act*

- *Reauthorize and Strengthen the HHS National Advisory Committee on Children and Disasters* – AAP notes the important contributions of the HHS National Advisory Committee on Children and Disasters (NACCD) since this committee created it under PAHPRA in 2013. The NACCD contains numerous subject matter experts from the public and private sector. It has provided HHS with several thoughtful reports with recommendations for healthcare preparedness for children, surge capacity, strategies for human services and child-serving institutions, and a joint report with the NPRSB on youth leadership and resilience. AAP strongly supports the reauthorization of the NACCD and asks Congress to align the NACCD with the NPRSB by making it permanent and resourced. AAP has recommendations for additional areas of expertise that would be helpful to add to the NACCD such as mental or behavioral health, children and youth with special health care needs, schools and child care, trauma and critical care, among others. It is our hope that the ASPR will utilize the expertise of the NACCD and the NPRSB to enhance its preparedness and response efforts.

- *Authorize the CDC Children's Preparedness Unit* – AAP asks Congress to authorize the Children's Preparedness Unit (CPU) at CDC. The CPU has proven to be an invaluable resource to the CDC, the pediatrician community, schools, and other child-serving institutions during recent emergencies such as Ebola and Zika. The CPU is an internal team of experts within CDC with a background in pediatrics, behavioral science, child psychology, epidemiology, biostatistics, health communications, and more that is providing leadership and technical assistance, training, and consultation with the CDC and to federal, state, and local public health entities to improve preparedness and response for children including under the PHEP Program. Members of the CPU have been activated or utilized as part of a CDC emergency response and, as Dr. Redd noted to this committee, they leverage public-private partnerships to address gaps in emergency preparedness and response for children.

- *Funding for Public Health and Medical System Preparedness and Response* – HPP and PHEP are key to the foundational capabilities of healthcare and public health preparedness, respectively. These critically important federal programs must be resourced at sufficient levels to ensure every community is prepared for disasters. HPP's highest level of appropriation was $515 million, yet the program has eroded to only $255 million, a vastly insufficient level given the task of preparing the healthcare system for a surge of patients, continuity of operations, and recovery. As Dr. Kadlec noted before the committee last week, we have a roughly $3.3 trillion health care system, so a federal investment of only about $250 million is not realistic if we are to have a truly prepared and resilient health care system. AAP urges Congress to authorize HPP at a minimum of $474 million, the level authorized in the PAHPA legislation of 2006. PHEP, currently funded at $660 million, should be authorized at a minimum of $824 million, the level authorized

in the 2006 PAHPA bill. Federal funding is crucial to maintaining state, local, and territorial public health preparedness capacity. Even small fluctuations in funding – such as the 2016 transfer of $44 million from PHEP for the federal Zika response – have major impacts on workforce, training and readiness.[ix]

We cannot let happen again what transpired during the Zika response where federal agencies' ability to respond was hampered by delays in congressional action on emergency funding. A pre-approved standing fund for short-term scale-up of rapid, emergency response is necessary. Such a fund should be administered by the HHS Secretary and should supplement and not supplant existing, base public health and preparedness funds. Funding should not come at the expense of other health programs, either from discretionary health spending or by transfer. Such a fund should serve as an interim bridge between underlying capacity-building funds and emergency supplemental funds, if needed. While such a fund should have sufficient resources, it cannot be viewed as a substitute for future supplemental emergency funding.

- *Public Health and Medical System Preparedness are Distinct and They Should Be Nationwide with Strong Pediatric Considerations* – Because disasters can happen anywhere in the country and universal risks such as influenza pandemics and mass shootings exist, it is essential that all jurisdictions have a baseline level of preparedness aided by the HPP and PHEP programs. Performance measures for both programs must include meaningful metrics that assess a jurisdiction's preparedness to identify and meet the needs of children. Given the important role pediatricians play in the response and long-term recovery and resilience of communities, pediatricians should be integrated into all health care coalitions to help serve as pediatric subject matter experts and to help integrate pediatric components into planning, including drills and exercises. While HPP and PHEP should continue to be aligned and coordinated, they must remain as separate, distinct programs. The two programs serve a different but complementary purpose: PHEP builds the capacity of state, local, and territorial health departments and laboratories to prevent, detect, and respond to emergencies, while HPP prepares the healthcare delivery system to provide essential care to patients by ensuring continuity of care during disasters. Both programs are needed to save lives and protect the public from emergency-related illnesses and injuries.

- *Children with Special Healthcare Needs* – The HHS emPOWER map allows every hospital, first responder, electric company, and community member to use the map to find the monthly total of Medicare beneficiaries with electricity-dependent equipment claims at the U.S. state, territory, county, and zip code level and turn on "real-time" natural hazard and NOAA severe weather tracking services to identify areas and populations that may be impacted and are at risk for prolonged power outages. This technology has the potential to save the lives of over 2.5 million Medicare beneficiaries who rely upon electricity-dependent medical and assistive equipment, such as ventilators and wheel chairs, and cardiac devices in our communities. However, emPOWER is currently limited to Medicare beneficiaries. AAP urges ASPR and HHS to conduct feasibility testing for piloting how emPOWER could be expanded to the Medicaid program so that millions of children and youth, including those with special health care needs can benefit from this technology.

[i] National Preparedness and Response Science Board. *ASPR Future Strategies Report.* March 30, 2015. http://www.phe.gov/Preparedness/legal/boards/nprsb/recommendations/Documents/aspr-fswg-report03162015.pdf

[ii] Ibid.
[iii] Emergency Medical Services for Children National Resource Center. *National Pediatric Readiness Project.* Available: http://pediatricreadiness.org/About_PRP/
[iv] Gausche-Hill, M., Ely, M., Schmuhl, P. A National Assessment of Pediatric Readiness of Emergency Departments. *JAMA Pediatr* ·534-527:(6)169;2015 ·doi:10.1001/jamapediatrics.2015.138
[v] National Preparedness and Response Board. Assistant Secretary for Preparedness and Response (ASPR) Future Strategies Report.
[vi] National Biodefense Science Board. Community Health Resilience Report.
[vii] American Academy of Pediatrics DISASTER PREPAREDNESS ADVISORY COUNCIL. Medical Countermeasures for Children in Public Health Emergencies, Disasters, or Terrorism. *Pediatrics,* originally published online January 4, 2016; DOI: 10.1542/peds.2015-4273
[viii] Ibid.
[ix] https://www.naccho.org/uploads/downloadable-resources/Impact-of-the-Redirection-of-PHEP-Funding-to-Support-Zika-Response.pdf