



ASPR

NACCD Metrics of Baseline Vulnerability in Pediatrics Health Care Services Report

**Dr. Scott Needle
Chair, NACCD**

Background

Hurricane Maria in Puerto Rico, September 2017

Residents' access to pediatric healthcare was impacted due to storm damage, but also because of other factors relating to Puerto Rico's geography and pre-hurricane infrastructure, economy, and healthcare system.

Comparing recovery trajectories from the three major U.S. hurricanes of 2017 – Harvey, Irma, and Maria:

Why can some areas can respond better and faster than others after a disaster?

Background

The Assistant Secretary for Preparedness and Response (ASPR) asked the NACCD to **develop a list of metrics that could define the baseline status and vulnerability of an area's ability to deliver pediatric healthcare.**

The NACCD addressed this question at its in-person meeting on June 28, 2018 in Washington D.C.

Community Characteristics

- Geographic isolation (possible definition: distance to two closest major metropolitan centers)
- % children receiving free or subsidized school lunch
- Baseline power grid penetrance and capability for rebuilding
- Baseline high-speed internet/cell phone/4G availability
- # of children with technology-dependent medical conditions (identify through Medicaid claims data)
- Homeless population per capita
- Baseline water capacity, frequency of water disruptions and shortages

Pediatric Services

- Availability of pediatric primary care (identify through Health Professional Shortage Area (HPSA) designation; also utilize AMA Physician Masterfile, AAP Chapter, insurer rosters as additional data sources)
- Availability and breadth of pediatric medical and surgical specialists, focusing on 24/7 coverage
- Availability of pediatric behavioral and mental health services (outpatient and inpatient)
- Availability of pediatric nurses

Pediatric Services (continued)

- Inpatient capacity (pediatric bed capacity, average % filled, surge capacity)
- % of area hospitals which are Critical Access Hospitals
- Access to pediatric trauma care (Pediatric Level I/II trauma centers)
- Pediatric transport capacity
- Pediatric ECMO availability and capacity

Other Indicators

- Average Medicaid to Medicare payment ratio (amount paid by Medicaid as a % of Medicare)
- Hospitals' days cash on hand
- Hospitals' inventory of specialized pediatric equipment *and* supply chain replenishment capability
- Robustness of local healthcare coalition participation, functionality, funding, pediatric drills

Recommendations

1. Assess the ability to quantify each of these metrics using existing data sources.
2. Refine the list by identifying the metrics most useful in determining baseline pediatric health system vulnerability.
3. Attempt to validate the refined list by retrospectively applying it to areas that have experienced disaster and comparing the results to assessments of healthcare access and status in recovery in these areas.

Thank You's

- NACCD Members
 - Michael Anderson
 - Linda MacIntyre
 - Susan McCune
 - Georgina Peacock
 - Sarah Park
 - Jeffrey Upperman
 - Anne Zajicek
- ASPR
 - Dan Dodgen
 - CDR Jonathan White
 - Maxine Kellman
 - Belinda Green
 - Sarah Verbofsky



ASPR

Questions?