Whose Health Care System is it Anyway?
Lessons Learned from Hurricane Sandy

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IOM, Post-Disaster Recovery of a Community's Public Health, Medical and Social Services
(February 3, 2014)
What are the ethical responsibilities of the health care system when?

NYC Hospital Resources

RTC (Regional Trauma Center)
### The Closure of Three Hospitals
**November 1, 2012**

<table>
<thead>
<tr>
<th></th>
<th>BHC</th>
<th>NYU</th>
<th>VAMC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inpatient Beds</strong></td>
<td>912</td>
<td>829? (DOH)</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>(829)</td>
<td></td>
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<tr>
<td><strong>Outpatient Visits</strong></td>
<td>&gt;500K</td>
<td>Private Practice</td>
<td>&gt;250K</td>
</tr>
<tr>
<td>(Annual)</td>
<td></td>
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<tr>
<td><strong>ED Visits Annual</strong></td>
<td>&gt;110K</td>
<td>&gt;45K</td>
<td>14.5K</td>
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<tr>
<td><strong>ED Visits Per Day</strong></td>
<td>~300</td>
<td>~125</td>
<td>~60</td>
</tr>
<tr>
<td><strong>House staff (total)</strong></td>
<td>~450</td>
<td>~450</td>
<td>(156)</td>
</tr>
<tr>
<td><strong>Patients Evacuated</strong></td>
<td>736</td>
<td>298</td>
<td>132</td>
</tr>
<tr>
<td><strong>Ambulance Runs/Day</strong></td>
<td>~100</td>
<td>~40</td>
<td>~20</td>
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The Initial response to Disaster
“Modern Equivalent of the Health Maginot Line”

- AMBULANCES
  - New York Hospital Weill Cornell
  - NYU
  - BHC
  - VA
  - Beth Israel Hospital
  - WALK-IN

- Staff Deployed & Redeployed
- Devastating Overcrowding

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Dollars and Nonsense?

Hospital Logistics

EM Attendings from BHC/HHC; NYULMC & VAMC

RTC: Regional Trauma Center
SH: Specialty Hospital
SNF: Skilled Nursing Facility

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Decision Analysis: In the Face of a Disaster

Why do Hospitals, Emergency Departments and Ambulatory Care Units exist?

- For a “near perfect” representation of the norm?
- Or to meet the needs of the community?

While this issue was debated healthcare deficits continued
What did hospital closure mean?

- Each hospital had 24hr/7days/week greeters sending people elsewhere
- Ambulances ready to transport people where indicated
- Many elderly compromised patients returned frequently waiting for the hospital to open
- Many stopped calling 911 for fear of not being brought to “their institution”
  - “I’ve been here my whole life…”
  - “I was born here…”
  - “My records are here…”
  - “I am in the Coumadin clinic…”
  - “My Mandarin speaking psychiatrist…”
Comparison of Emergency Department Census at Bellevue and Beth Israel

[Graph showing the comparison of daily emergency department visits for Bellevue and Beth Israel from September 2012 to March 2013. The graph includes lines for Bellevue and Beth Israel visits, with a dotted line indicating historical trends.]

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Decision Analysis

Universality of Need

- Can a City/State respond to a disaster without universal health care?
- How difficult was it to transfer the impoverished?
- Where were the staff (RN, MD, Clerks) sent?
(c 1850) Virchow: “medical education does not exist to provide students with a way of making a living, but to ensure the health of the community.”

(c 2014) Goldfrank: “Health care should not exist to provide health care systems with a way of making a profit, but to ensure the health of the community.”
Heisenberg’s Principle (1926)
“uncertainty is unavoidably introduced into the measured qualities by the measurement itself.”

My experience in January 2013

<table>
<thead>
<tr>
<th>NYU Tisch</th>
<th>Bellevue</th>
<th>Manhattan VA</th>
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</thead>
<tbody>
<tr>
<td>Hospital OPEN</td>
<td>Hospital CLOSED</td>
<td>Hospital CLOSED</td>
</tr>
<tr>
<td>E 34th Street</td>
<td>E 30th Street</td>
<td>E 26th Street</td>
</tr>
<tr>
<td>ED CLOSED</td>
<td>ED OPENED</td>
<td>ED CLOSED</td>
</tr>
</tbody>
</table>

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I realize we do not have universal health care but what have we done to assure medical humanism when our system is not designed to respond to a disaster with staff, stuff and space to meet a community’s needs?
<table>
<thead>
<tr>
<th>SITE</th>
<th>PHASE</th>
<th>Immediate</th>
<th>Intermediate</th>
<th>Longterm</th>
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</thead>
<tbody>
<tr>
<td>Ambulatory Care</td>
<td></td>
<td><strong>Immediate</strong></td>
<td><strong>Intermediate</strong></td>
<td><strong>Longterm</strong></td>
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<tr>
<td></td>
<td></td>
<td>Utilize local staff to establish fusion ambulatory and urgent care site</td>
<td>Reestablish essential primary care clinics with expanded hours</td>
<td>Continue to enhance primary care with expanded hours</td>
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<td>24 hrs/day/7 days per week in easily accessible community site with follow up and hospital transfer relationships</td>
<td>Maintain 24 hrs/day/7 day/week urgent care service in alternative space or prior ED until hospital is opened with primary care followup and hospital transfer assured</td>
<td>Reestablish focused specialty care</td>
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<td>Emergency (ED) Care</td>
<td></td>
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<td>Depending whether site is available to perform emergency care and the hospital is functional:</td>
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<td>Establish free standing ED with variable ambulance capacity</td>
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<td>Or standard open access ED</td>
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<tr>
<td>End Results</td>
<td></td>
<td>Initiates resiliency, community health and public health needs</td>
<td>Reestablishes community primary care—and access to urgent care pending hospital opening</td>
<td>Expands local capacity for ambulatory and emergency care to near normal with or without hospital</td>
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<td>Focus on essential needs of the highly vulnerable</td>
<td>Enhances resiliency efforts emphasizing unmet needs of vulnerable</td>
<td>Enhance medical resources to assist on going resiliency needs</td>
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