



May 29, 2008

Hospital CEO  
Hospital Address

Dear Hospital CEO:

We are writing to share the results of 2007 data on the state of emergency department crowding. Based on the most recent information, it appears that crowding in the last year has decreased substantially.

### **Background**

Emergency department crowding is a public health problem that ties up important resources, increasing costs and challenging hospitals' abilities to meet public emergencies. This update examines three key indicators of crowding:

- total hours when hospitals are without available EKG-monitored beds (red alert),
- total hours that the EMS system places hospitals on "re-route" status because patient transfer is delayed by ambulance crowding, and
- average minutes that ambulances wait at hospitals to transfer patients into the care of the hospital before returning to service.

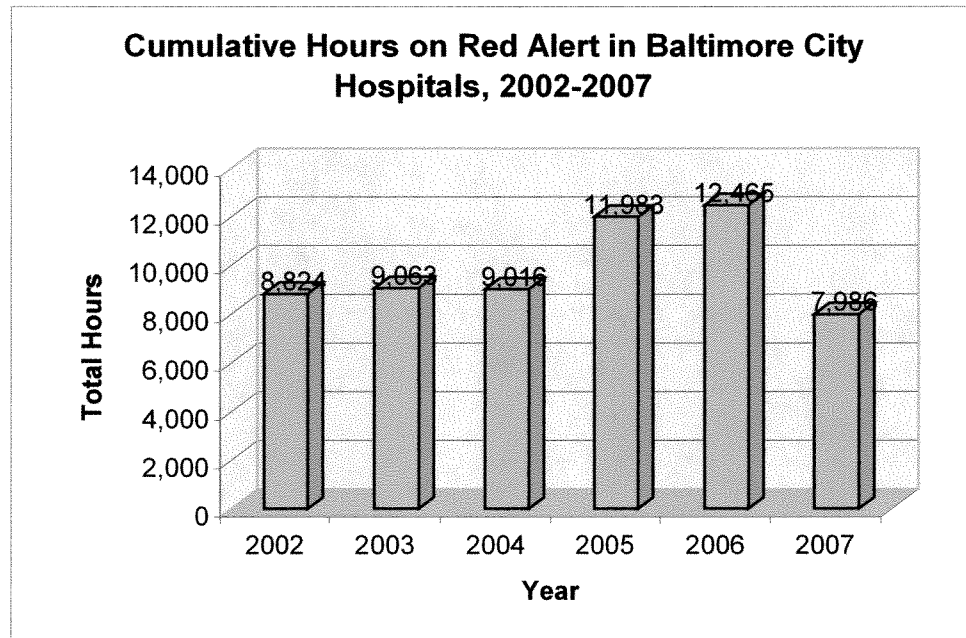
When hospital and city officials first came together in 2005 as the Baltimore City Task Force on Emergency Department Crowding, these indicators showed a steady increase from 2002 to 2005 as part of a decades-long trend. The Task Force agreed on 15 mechanisms for improvement in the areas of inflow, throughput, and outflow. With the essential coordination of the Maryland Institute for Emergency Medical Services Systems, many of these were implemented. Last year we reported that, during 2006, the increases in red-alert, re-route, and return-to-service times had eased.

### **2007 Data**

New data for 2007 shows that the problem has clearly improved.

Compared to 2006, city ambulance transports in 2007 increased by 4.6% and patient visits to emergency departments increased by 1.2%.<sup>1</sup> Over this period:

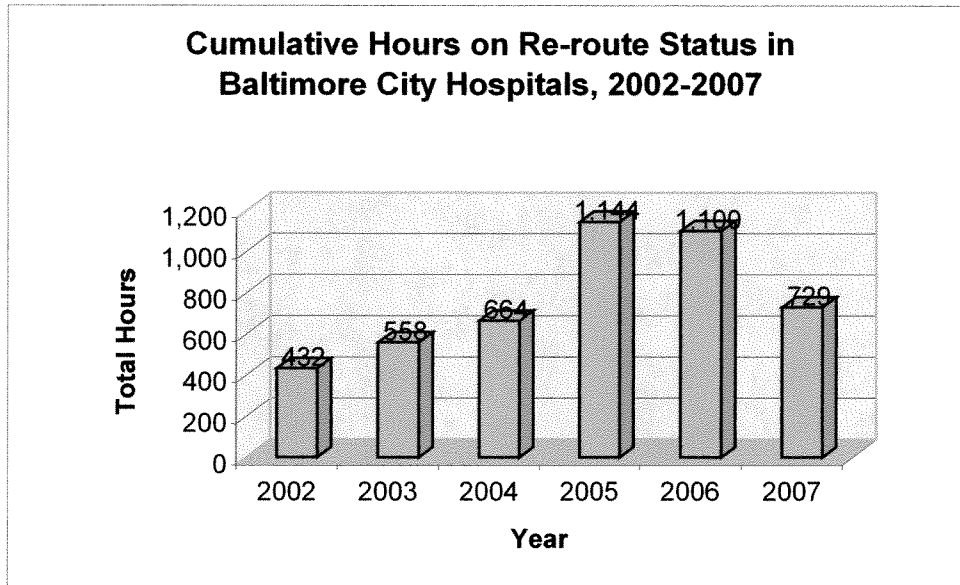
- Total hours of hospital time without available EKG-monitored beds (red alert) decreased by 35.9%.



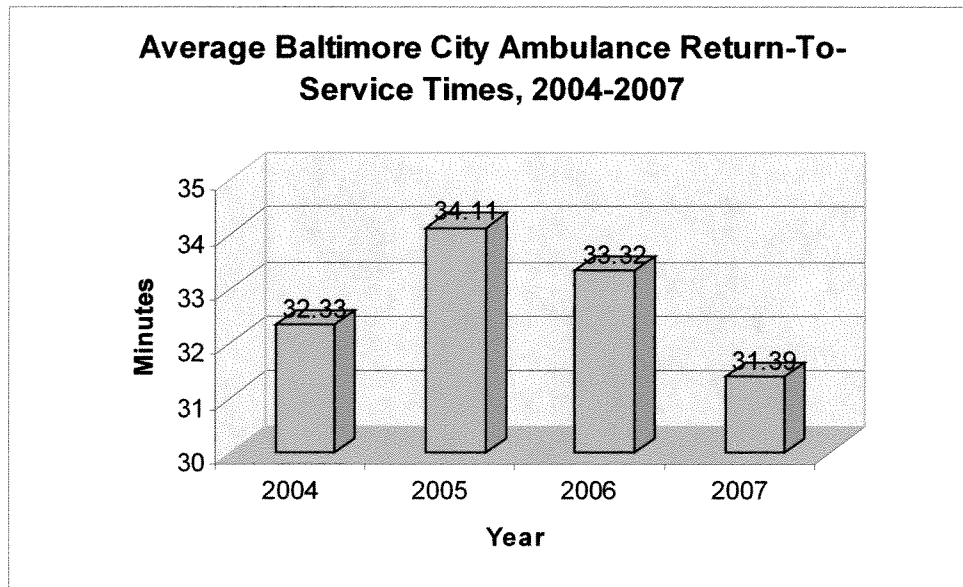
---

<sup>1</sup> The Maryland Health Services Cost Review Commission began collecting data on hospital visits using a new system in July 2007, so comparisons to past years may be affected.

- Total hours that the EMS system placed hospitals on “re-route” status decreased by 33.7%.



- The average ambulance return-to-service time decreased by 5.8%.



Data in the above analyses come from the Maryland Institute for Emergency Medical Services Systems, the St. Paul Computer Center and from the Baltimore City EMS 911 System. The

Baltimore City ambulance return-to-service times are based on data from the Computer Aided Dispatch system, which is only available from 1/1/2004.<sup>2</sup>

**Steps Taken to Reduce Crowding**

In addition to the changes designed to reduce crowding that many hospitals have implemented, the EMS system has also adapted to meet the challenge.

Specifically, the Baltimore City Fire Department has put in place two procedures to improve ambulance routing: a centralized routing pilot program and a “Stretcher to ER Bed Time” alert. The pilot program employs a dispatcher five days a week during peak hours to actively manage where stable patients are transported. Decisions are based on direct communications with providers at hospitals and on available electronic data regarding crowding.

The “Stretcher to ER Bed Time” alert notifies an EMS field supervisor by pager if a stretcher patient cannot be placed in a bed within 30 minutes. Ambulances are then re-routed to other hospitals until the delay is abated.

The joint efforts of hospitals and the EMS system in conjunction with the Maryland Institute for Emergency Medical Services Systems appear to be working. Yet there is still more work to be done. Diversion levels remain high. Continued increased volumes to Emergency Departments demonstrate the need to divert patients through enhanced access to primary care. We appreciate your continued attention to this important public health issue.

Sincerely,



James S. Clack  
Chief  
Baltimore City Fire Department



Joshua M. Sharfstein, M.D.  
Commissioner of Health  
Baltimore City Health Department

---

<sup>2</sup> Our previous update used data from ambulance run sheets, which is not yet available for 2007. Run sheets are a written record of the time ambulances arrive and depart from hospitals. Computer Aided Dispatch data is taken from a computer record of the moment a medic unit presses “at hospital” on the departmental radio to the time the medic presses “in service” after completing a drop off.