

# Illinois Hospital Bypass System

**Illinois Department of Public Health  
Nirav D. Shah, M.D., J.D., Director**

# Hospital Bypass System-Overview

- Provides a secure, web-based system allowing IDPH, EMS Systems, hospitals, and other stakeholders to monitor, in real time, the bypass status of hospital facilities statewide
- Helps to ensure adequate resources for patient care are available during a disaster or other large-scale crisis
- Part of Illinois' emergency response support infrastructure

# Hospital Bypass System-Overview

## (continued)

- Accessible through the IDPH Web Portal  
<https://www.idphnet.illinois.gov>
- Primary function is to track critical hospital capacity indicators, including bypass/peak census status and bed/resource counts
- All users of the system, primarily Hospitals and IDPH, may view the status of hospitals statewide

# Hospital Bypass System – Hospital Status

- What are the Hospital/ACS Status categories?
  - **Bypass** – the hospital requests that ambulances “bypass” the hospital and take patients to other facilities. Also called “diversion”
  - **Peak Census** – the hospital may advise ambulances and/or nearby hospitals that they are nearing the point of being overwhelmed
  - **Open** – normal operations
  - **Closed** – Alternate Care Sites only

# Hospital Bypass System – Hospital Status

- Bypass information facilitates:
  - Defining the geographic scope of problem areas
    - A single hospital
    - A group of hospitals (e.g., a city or EMS region affected by an accident or natural disaster)
  - Information flow
    - A communication tool for use within entities (e.g., a hospital, EOC, or health department)
    - A common reference point among entities (real time nature of system makes all users aware of trends simultaneously)

# Hospital Bypass System – Hospital Status

- The system includes some basic features to help spot trends and identify patterns
  - Sorting
    - Available throughout the application, allowing users to more readily identify problem areas
    - Example: On the hospital status page users may sort by hospital name, city, status, type of hospital, & EMS region
  - Mapping
    - Provides a view of hospitals and their statuses on a statewide map

# Hospital Bypass System – Hospital Status

- Some trend-spotting features, continued
  - Automated email notifications
    - All hospitals are notified of changes in their own status
    - Users have a menu of other notification options tied to geographic thresholds, such as multiple instances of bypass:
      - Within a 25 mile radius W
      - Within a given region
      - Statewide
    - Options are configured administratively

# Hospital Bypass System – Hospital Status

## ■ Some trend-spotting features, continued

### □ Types of optional email notifications

- 1) **Regional Bypass Threshold Notification**--occurs when the number of hospitals in one or more selected regions are on bypass at the same time meets or exceeds the threshold. Threshold level varies from 2 to 4, depending on the region.
- 2) **Statewide Bypass Threshold Notification**--occurs when 8 or more hospitals within the state are on bypass at one time.
- 3) **Hospital Proximity Bypass Threshold Notification**--occurs when three or more hospitals with a 25-mile radius are on bypass at the same time.
- 4) **Peak Census Notification**--occurs when any hospital in one or more selected regions declares a Peak Census status (this is a pre-condition for a hospital going to bypass status).

# Email Notification Setup Screen

**Status:**

Active  Inactive

**Name:**

Dan Lee

**Email Address:**

daniel.lee@illinois.gov

**Type:**

Email  Text

**Alerts:**

- Statewide Proximity Bypass Threshold
- Hospital Proximity Bypass Threshold
- Statewide Bypass Threshold

**Regional Bypass Threshold and Peak Census:**

All

1  2  3  4  5  6  7  8  9  10  11

Cancel

Delete

Update Notification

# Hospital Bypass System – Hospital Status

## ■ More on email notifications

- An HBS user may elect to receive all, some, or none of the categories of optional email notifications.
- If no notification type checkboxes are checked on the notification setup screen, a user will only receive email notifications related to her/his hospital, such as to notify when bypass status has been changed or to warn that it will be automatically expiring soon.

# Main Hospital Status Screen

Illinois Department of Public Health - Hospital Bypass System

Print

Hospital Status

[Map](#) [Reports](#) [Rules](#) [Help](#)

[Hospital Status](#) | [MCI Medical Surge](#) | [Notifications](#) | [Administration](#) | [Exit](#)

Reset Sort

<u>Hospital</u>	<u>City</u>	<u>Status</u>	<u>Hospital Type</u>	<u>Peds</u>	<u>Region</u>	<u>Userid</u>	<u>Last Updated</u>
<a href="#">ABRAHAM LINCOLN MEMORIAL HOSPITAL</a>	LINCOLN	 OPEN	ASSOCIATE	NONE	3	IDPH	01/17/09 03:32PM
<a href="#">ADVENTIST BOLINGBROOK HOSPITAL</a>	BOLINGBROOK	 OPEN	ASSOCIATE (TRAUMA)	NONE	8	IDPH	04/17/08 11:25AM
<a href="#">ADVOCATE CHRIST MEDICAL CENTER</a>	OAK LAWN	 OPEN	RESOURCE (POD)	PCCC	7	SGREEN1	01/27/09 08:48PM
<a href="#">ADVOCATE CONDELL MEDICAL CENTER</a>	LIBERTYVILLE	 OPEN	RESOURCE (TRAUMA)	EDAP	10	RSCHWICH	04/14/08 10:59PM
<a href="#">ADVOCATE GOOD SAMARITAN HOSPITAL</a>	DOWNERS GROVE	 OPEN	RESOURCE (TRAUMA)	EDAP	8	SDRECHEN	06/09/08 10:14PM
<a href="#">ADVOCATE GOOD SHEPHERD HOSPITAL</a>	BARRINGTON	 PEAK CENSUS	ASSOCIATE (TRAUMA)	EDAP	9	LBOLAND	01/28/09 09:05AM

# Hospital Status Map



Zoom to City, ZIP or EMS

go



**HOSPITAL STATUS**

- Open
- Peak
- Bypass

**Layers**

Active Layer: Hospitals

- Hospitals
- Major Highway Shield
- Secondary Highway Shield
- Major Highway
- Local Health Depts
- Zip
- Water
- Land Use B
- Land Use A
- Counties

# Hospital Bypass System - Contacts

- The system assists with finding appropriate hospital contacts
  - By clicking on the name of the hospital on the status page
  - By using the “information tool” in the mapping portion of the application (example follows)
- Contact information is managed by end users (hospitals), not IDPH

# Contact Information Displayed Via Map

ST. JAMES AND HLTH CTROLYMPIA  
FLDS  
20201 S. CRAWFORD  
OLYMPIA FIELDS, IL 60461

number: 0167  
Status at: 2007 07 05 11:03  
PEAK CENSUS

close print

-- Contacts --

**KRISTINE OOMS**  
Emergency Dept Manager  
Phone: None Listed  
Pager: 708-242-0311  
Kristine.Ooms@ssfhs.org

**PETER MURPHY**  
Hospital Administrator  
Phone: None Listed  
Pager: 708-242-6919  
Peter.Murphy@ssfhs.org

**TIMOTHY CONLEY**  
EMS System Coordinator  
Phone: None Listed  
Pager: 708-242-4108

HOSPITAL STATUS

- Open
- Peak
- Bypass

Layers

Active Layer: Hospitals

- Hospitals
- Major Highway Shield
- Secondary Highway Shield
- Major Highway
- Local Health Depts
- Zip
- Water
- Land Use B
- Land Use A
- Counties
- City
- IDPH Regions
- EMS Regions
- State

# Hospital Bypass System – MCI Medical Surge

- During certain situations, an MCI (Mass Casualty Incident) Medical Surge can be declared, which sets all hospital to an “open” status and prevents them from going to bypass
  - An example of an MCI event was Hurricane Katrina
  - An MCI might also be declared during a bioterrorism event
- During an MCI Medical Surge, email alerts are sent out, and the MCI Medical Surge alert appears in the upper left

# MCI Medical Surge Alert on Status Screen

Illinois Department of Public Health - Hospital Bypass System (Dev)

Print

Hospital Status

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MCI Declared

Reset Sort

<u>Hospital/ACS</u>	<u>City</u>	<u>Status</u>	<u>Hospital Type</u>	<u>Peds</u>	<u>Region</u>	<u>Userid</u>	<u>Last Updated</u>
<a href="#">ABRAHAM LINCOLN MEMORIAL HOSPITAL</a>	LINCOLN	 OPEN	ASSOCIATE	NONE	3	IDPH	08/12/08 12:48PM
<a href="#">ADVENTIST BOLINGBROOK HOSPITAL</a>	BOLINGBROOK	 OPEN	ASSOCIATE (TRAUMA)	NONE	8	IDPH	08/12/08 11:49AM
<a href="#">ADVOCATE CHRIST MEDICAL CENTER</a>	OAK LAWN	 OPEN	RESOURCE (POD)	PCCC	7	IDPH	03/17/08 01:21PM
<a href="#">ADVOCATE CONDELL MEDICAL CENTER</a>	LIBERTYVILLE	 OPEN	RESOURCE (TRAUMA)	EDAP	10	HBSTEST1	01/02/08 01:55PM

# Hospital Bypass System – MCI Inventory Items

- Items, such as bed and critical supply counts are updated by hospitals daily
- On the MCI page, items inventoried by the hospitals are displayed
  - Users can sort by individual items, and by hospital name or region, to help identify the location of critical resources
  - Regional and statewide totals for individual items are also available through the system

# MCI Inventory Item Counts, by Hospital

Illinois Department of Public Health - Hospital Bypass System

Print

MCI Medical Surge

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Summary Summary - Additional Items Totals Aero Medical Organizations

Reset Sort

<u>Hospital</u>	<u>Region</u>	<u>Total Available Beds</u>	<u>Unstaffed Beds</u>	<u>Staffed Beds</u>										<u>Other</u>			
				<u>Adult ICU</u>	<u>Medical &amp; Surgical</u>	<u>Burn Care</u>	<u>Peds ICU</u>	<u>Pediatrics (Non ICU)</u>	<u>Psychiatric</u>	<u>Emergency Department</u>	<u>Negative Pressure</u>	<u>Other Staffed</u>	<u>Neonatal ICU</u>	<u>0 Negative Blood</u>	<u>Decontamination Facility</u>	<u>Ventilators</u>	<u>OR Beds</u>
ABRAHAM LINCOLN MEMORIAL HOSPITAL <i>(Updated: 01/28/2009 07:04AM by ETWYMA)</i>	3	18	1	4	9	0	0	0	0	0	2	2	0	6	3	2	0
ADVENTIST BOLINGBROOK HOSPITAL <i>(Updated: 01/28/2009 07:11AM by LCARROLL)</i>	8	105	68	5	12	0	0	6	0	6	8	0	0	6	12	6	1

# MCI Inventory Item Counts-By EMS Region

Summary - Additional Items																	
Summary																	
Totals																	
Aero Medical Organizations																	
Region	Total Available Beds	Unstaffed Beds	Staffed Beds										Other				
			Adult ICU	Medical & Surgical	Burn Care	Peds ICU	Pediatrics (Non ICU)	Psychiatric	Emergency Department	Negative Pressure	Other Staffed	Neonatal ICU	O Negative Blood	Decontamination Facility	Ventilators	OR Beds	
1	665	113	57	187	2	3	38	28	119	36	79	3		133	206	73	44
2	1100	239	68	342	0	36	58	16	197	50	76	18		170	276	78	69
3	641	42	42	279	3	5	11	35	100	32	76	16		143	93	66	20
4	760	204	45	216	0	0	18	46	93	39	91	8		187	212	61	47
5	3522	3125	26	237	0	0	8	9	81	18	18	0		66	124	53	22
6	680	146	28	220	0	3	52	17	115	32	58	9		231	94	44	53
7	885	118	54	223	0	1	50	59	190	51	128	11		219	116	213	56
8	854	198	72	174	1	14	51	21	167	32	80	44		149	437	176	45
9	593	96	31	155	0	3	36	44	131	31	30	36		150	167	107	65
10	596	203	26	172	0	0	36	20	109	14	16	0		52	103	62	23
11	1359	239	117	407	1	51	82	111	193	61	72	25		468	309	280	104
<b>Total:</b>	<b>11,655</b>	<b>4,723</b>	<b>566</b>	<b>2,612</b>	<b>7</b>	<b>116</b>	<b>440</b>	<b>406</b>	<b>1,495</b>	<b>396</b>	<b>724</b>	<b>170</b>	<b>-</b>	<b>1,968</b>	<b>2,137</b>	<b>1,213</b>	<b>548</b>

# Hospital Bypass System – Additional Inventory Items

- The Department can add inventory items in real time
  - If a specific item needed to be inventoried, such as during a bioterrorism event, this item could be added by the IDPH System Administrator
  - Other hospitals can view these items and enter counts for them into the system
  - During the May 2012 NATO Summit in Chicago multiple temporary categories were added to support surveillance efforts.

# Hospital Bypass System - Reports

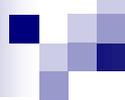
- Although HBS is primarily a real-time tool for assessing and managing critical hospital resources at various levels of aggregation (i.e., city, region, state), it also has the capacity to produce limited historical data via a reports module
- Reports may be printed from the application or exported in Excel, Word, PDF, RTF, and Crystal Reports formats

# Hospital Bypass System - Reports

- Currently there are more than a dozen reports available, including:
  - Status history for one or more hospitals for a specified date range
  - Hospital compliance with the Department's daily bed/resource count update policy
  - A statewide snapshot of hospitals' bed/resource counts at a specified point in time
  - The percentage of time a hospital was on bypass, over a user-specified time interval

# Hospital Bypass System - Summary

- This system provides a way to monitor, in real time, the bypass status of Illinois hospitals, as well as their respective bed and supply counts, statewide
- The system includes features to help spot trends and identify patterns, as well as to obtain selected historical data
- It is a part of Illinois' emergency response support infrastructure



# Question or suggestions?

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