National Hospital Ambulatory Medical Care Survey

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Change Request

Addition of Pandemic and Emergency Response Preparedness Questions to the 2008 National Hospital Ambulatory Medical Care Survey

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Title: Addition of Pandemic and Emergency Response Preparedness Questions to the 2008 National Hospital Ambulatory Medical Care Survey

A. Justification

1. Circumstances of Making the Collection of Information Necessary

If approval is received, pandemic and emergency response preparedness questions will be added to the 2008 National Hospital Ambulatory Medical Care Survey (NHAMCS) at the request of the Office of the Assistant Secretary for Planning and Evaluation (OASPE) of the Department of Health and Human Services (DHHS). A self-administered questionnaire will be completed for each sample hospital by the person responsible for the hospital's emergency response plan. Information will be obtained on the content of the hospital's emergency response plan, staff training, participation in mass casualty drills, and the hospital's resources and capabilities. The pandemic and emergency response preparedness questions were adapted from the previously approved "Bioterrorism and Mass Casualty Preparedness Supplement" (NHAMCS-905) that was fielded in 2003 and 2004. Proposed questions are delineated in Section B2. The current NHAMCS is approved as OMB number 0920-0278 (expires August 31, 2009).

2. Purpose and Use of Information Collection

In 2003 and 2004, with OASPE funding, the National Center for Health Statistics (NCHS) fielded Bioterrorism and Mass Casualty Preparedness Supplements to the NHAMCS that evaluated various dimensions of hospital emergency preparedness, including the training of clinicians for smallpox, anthrax and several other weaponizable biological agents, as well as chemical and radiological exposures. The supplement also evaluated the level of planning and implementation in several other areas, the level of collaboration with outside organizations, and quantified the resources available to hospitals such as mechanical ventilators and negative pressure isolation rooms. The results of the survey showed in general that while hospitals were prepared in most of these areas, much work remained to be done as Federal funding for hospital preparedness became more available. Details of the 2003 survey results are available at http://www.cdc.gov/nchs/data/ad/ad364.pdf. Combined data from 2003 and 2004 are available at http://www.cdc.gov/nchs/data/ad/ad380.pdf.

This new agreement with OASPE involves revising and updating the previously approved NHAMCS Bioterrorism and Mass Casualty Preparedness Supplements. Certain elements (such as the existence of updated emergency response plans) will remain the same in order to be able to establish trends over time. Other elements will be revised to answer questions generated by the previous surveys and newer public health priorities. Examples include adding specificity on some resources such as decontamination showers, to include numbers of patients able to be accommodated, and including questions about evacuation plans and the set-up of temporary facilities should the hospital not be able to operate. The elements will assess progress towards hospital preparedness for dealing with bioterrorism and mass casualty incidents, and in so doing evaluate the ability of hospitals to deal with naturally occurring diseases, epidemics and pandemics, such as SARS or influenza.

This project supports the DHHS goal to prepare for emerging health threats. The project will also provide nationally representative benchmarks that could serve as one quality control mechanism for other projects that are designed to detect emerging health threats within a shorter time period.

The DHHS requested that data be collected on the state of preparedness of the nation's hospitals to respond to a terrorist attack, so that the Department may identify policy strategies for addressing this issue.

4. Efforts to Identify Duplication and Use of Similar Information

The NHAMCS-905 Bioterrorism and Mass Casualty Preparedness Supplement was conducted in 2003 and 2004. The literature review from subsequent publications coming out of that data revealed no other nationally representative surveys of this type. The proposed pandemic and emergency response preparedness questions will follow up on some of the old questions, in addition to asking new questions. Thus, it is not duplication but an update on hospital preparedness.

6. Consequences of Collecting the Information Less Frequently

This information from the pandemic and emergency response preparedness questions will only be collected during the 2008 panel of the NHAMCS.

8. Comments in Response to Efforts to Consult Outside the Agency

The following people commented on the contents of the new questionnaire:

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11. Justification for Sensitive Questions

There are no questions of a sensitive nature.

12. Estimates of Annualized Burden Hours and Cost

Table A. Annual Burden

The respondents are those facilities currently in the sample. The currently approved annual burden is 7,313 hours. The addition of 190 hours to complete the pandemic and emergency response preparedness questions will result in the same burden as is currently approved because OPD response rates have decreased since the last submission.

Type of Respondent	Form Name	No. of Respondents	No. of Responses per Respondent	Average Burden per Response (in hours)	Total Response Burden (in hours)
Ancillary Service Executive	Hospital induction (NHAMCS-101) - pandemic and emergency response preparedness questions	455	1	25/60	190
Hospital Chief Medical Officer	Hospital Induction (NHAMCS-101) Ineligible Eligible	 50 420	 1 1	 15/60 1	 13 420
Ancillary Service Executive	Ambulatory Unit Induction (ED) (NHAMCS-101/U)	400	1	1	400

Ancillary Service Executive	Ambulatory Unit Induction (OPD) (NHAMCS-101/U)	239	4	1	956
Physician/ Registered Nurse/Medical Record Clerk	ED Patient Record form [NHAMCS-100 (ED)]	220	100	6/60	2,200
Medical Record Clerk	Pulling and re-filing ED Patient Record	180	100	1/60	300
Physician/ Registered Nurse/Medical Record Clerk	OPD Patient Record form [NHAMCS-100 (OPD)]	125	190	6/60	2,375
Medical Record Clerk	Pulling and re-filing OPD Patient Record	125	190	1/60	396
Physician	Cervical Cancer Screening Supplement (CCSS) (NHAMCS-906)	200	1	15/60	50
Physician Assistant/Nurse Practitioner/ Nurse Midwife	Cervical Cancer Screening Supplement (CCSS) (NHAMCS-906)	50	1	15/60	13
				TOTAL	7,313

It is estimated that 400 hospitals will have an eligible ED and will complete the required induction form for the ED (NHAMCS-101/U). The average number of Patient Record forms (PRFs) completed by the hospital per ED will be 100 (see NHAMCS-100(ED)). Approximately 220 of the 400 hospitals will complete the PRFs without assistance from a Census Bureau representative. Burden to hospital staff who complete the NHAMCS-100(ED) is estimated to be 6 minutes per form. However, in approximately 180 hospitals, the NHAMCS-100(ED) form will be completed by a Census Bureau representative. In these cases, the only burden to hospital staff is the burden associated with pulling and re-filing the patient record, which is estimated to be one minute per form. Table A.12-A does not include the Census Bureau representative's effort for completing NHAMCS-100(ED) forms.

It is estimated that 239 hospitals will have eligible OPDs. Each clinic within the OPD completes a separate induction form; the average number of clinics per OPD is four (see NHAMCS-101/U). The average number of Patient Record forms (PRFs) completed by the hospital per OPD will be 190 (see NHAMCS-100(OPD)). Approximately half of the hospitals (125 out of the 250) will complete the PRF without assistance from a Census Bureau representative. Burden to hospital staff who complete the NHAMCS-100(OPD) is estimated to be 6 minutes per form. For the remaining 125 hospitals, the NHAMCS-100(OPD) form will be completed by a Census Bureau representative, and the only burden to hospital staff is the burden associated with pulling and re-filing the patient record, which is estimated to be one minute per form. Table A.12-A does not include the Census Bureau representative's effort for completing NHAMCS-100(OPD) forms.

The CCSS forms are also completed in the OPD.

The total number of annual responses (90,031) was calculated by multiplying the number of respondents by the number of responses per respondent, then adding those values. The hour burden estimates were based on previous years' experience in administering the survey.

Table B. Annual Cost to Respondents

The hourly wage estimate for the pandemic and emergency response preparedness questions for hospital ancillary service executives was based on the 2005 Hay Group's Hospital Compensation Survey. The average annual response burden cost for the NHAMCS is estimated to be $292,608 for each survey year (i.e., 2007 and 2008). The hourly wage estimate for the Hospital Induction interview and the Patient Record form for hospital executives was based on the 2005 Hay Group's Hospital Compensation Survey, for other hospital employees it was based on information from the mean hourly rate for physicians (general medicine/obstetricians/gynecologists/internists), physician assistants/nurse practitioners, registered nurses, and medical secretaries for 2004 published by the Bureau of Labor Statistics. The average annual hourly wage was determined by assuming that 10% of the Patient Record forms will be completed by physicians, 30% by nurses, and 60% by clerks. The following table shows how the respondent cost was calculated:

A. 12-B. Annualized Cost to Respondents:

Type of Respondent	Form	Response burden hours	Hourly wage rate	Respondent cost
Ancillary Service Executive	Hospital Induction (NHAMCS-101) - pandemic and emergency response preparedness questions	190	$54.00	$10,260
Hospital Chief Medical Officer	Hospital Induction (NHAMCS-101) - Ineligible Eligible	13 420	$125.00 $125.00	$ 1,625 $ 52,500
Ancillary Service Executive	Ambulatory Unit Induction -ED (NHAMCS-101/U)	400	$61.00	$ 24,400
Ancillary Service Executive	Ambulatory Unit Induction - OPD (NHAMCS-101/U)	1,000	$61.00	$ 61,000
Physician/ Registered Nurse/Medical Record Clerk	Emergency Dept. Patient Record (NHAMCS-100)	2,200	$28.24	$ 62,128
Medical Record Clerk	Emergency Dept. Patient Record (NHAMCS-100)	300	$16.31	$ 4,893

Physician/ Registered Nurse/Medical Record Clerk	Outpatient Dept. Patient Record (NHAMCS-100)	2,500	$28.24	$ 70,600
Medical Record Clerk	Outpatient Dept. Patient Record (NHAMCS-100)	417	$16.31	$ 6,801
Physician	Cervical Cancer Screening Supplement (CCSS) (NHAMCS-906)	50	$89.00	$ 4,450
Physician Assistant/Nurse Practitioner/ Nurse Midwife	Cervical Cancer Screening Supplement (CCSS) (NHAMCS-906)	13	$39.00	$ 507
	TOTAL			**$292,608**

14. Annualized Cost to the Government

The estimate of average annual cost for the NHAMCS pandemic and emergency response preparedness questions is as follows:

$ 50,250	Survey support
$ 2,819	Overhead
$281,931	Interagency Agreement – Data Collection, Keying, and Printing (Census Bureau)
$335,000	Total

15. Explanation for Program Changes or Adjustments

The current approved burden is 7,313 hours. The new pandemic and emergency response preparedness questions will add 190 hours; however, 190 hours were subtracted due to a decrease in the OPD response rate. The total of 7,313 hours is the same as the currently approved burden.

16. Plans for Tabulation and Publication and Project Time Schedule

The duration of the 2008 pandemic and emergency response preparedness questions will be 20 months. The timetable for key activities for the 2008 survey is as follows:

01/2008	Begin data collection
12/2008	End data collection
02/2009	Close out field work
05/2009	End data processing
09/2009	End weighting and begin data analysis
12/2009	Provide report of full year of data to DHHS

B. Collection of Information Employing Statistical Methods

1. Respondent Universe and Sampling Methods

The target sample for the 2008 NHAMCS and the pandemic and emergency response preparedness questions pandemic questionnaire consists of 556 hospitals. We estimate that about 445 hospitals will be both eligible and willing to participate.

2. Procedures for Collection of Information

Training on the pandemic and emergency response preparedness questions will be provided to Census Bureau field representatives (FRs). In addition, information on the purpose and background of the questions as well as specific instructions will be in the FR manual.

During the administration of the NHAMCS-101 hospital induction questionnaire which is conducted with the hospital administrator, the FR will obtain the name and telephone number of the person responsible for the hospital's emergency response plan. The FR will then contact this person, explain the purpose of the questions, and schedule an appointment to deliver the form. Census Bureau Headquarters staff, Demographic Surveys Division, Housing Surveys Branch, is responsible for overseeing the data collection. Census Bureau Headquarters staff, Field Division, is responsible for the supervision of staff in the Bureau's 12 Regional Offices who in turn supervise the FRs.

Proposed Questions

The following 2008 pandemic and emergency response preparedness questions are proposed to track trends in hospital preparedness from the baselines established in the 2003 and 2004 Bioterrorism and Mass Casualty Preparedness Supplements. Modifications are based on experience with the data from these prior surveys, and on an effort to provide unique data not being asked in other surveys being fielded.

- Does your emergency response plan specifically address each of these types of incidents?
    - Epidemics/pandemics
    - Biological accidents or attacks
    - Chemical accidents or attacks
    - Nuclear/radiological accidents or attacks
    - Explosive accidents or attacks
    - Natural disasters

- Does your emergency response plan specifically address these special populations?
    - Pediatric
    - Elderly
    - Medically fragile
    - Deaf
    - Blind

- Since September 11, 2001, with which of the following entities has your hospital engaged in cooperative planning in developing or updating an emergency response plan for public health emergencies (e.g. terrorism, mass casualties, epidemics, disasters)?
    - Other hospitals
    - Emergency medical services (EMS)
    - Fire department
    - Hazardous materials (HAZMAT) teams
    - State or local law enforcement
    - Federal Bureau of Investigation (FBI)
    - State or local public health department
    - State or local office of emergency management

- With which of the following actions has your hospital implemented during a hospital overcrowding incident or a public health emergency (e.g. disasters, mass casualties, disease outbreaks, terrorism)? (Choices will include yes, no, and not in emergency response plan.)

    <u>Collaboration with outside entities</u>
    - A memorandum of understanding (MOU) with one or more other hospitals to accept adult patients in transfer from the emergency department when no beds are available at your hospital
    - MOU with one or more children's hospitals to accept pediatric patients in transfer from the emergency department when no beds are available at your hospital
    - MOU with a regional burn center to accept patients in transfer in the aftermath of an explosive or incendiary mass casualty incident
    - Regional communication systems to track:
        - emergency department closures or diversions
        - available intensive care unit beds
        - available hospital beds
        - specialty coverage
    - Mutual aid agreements with other agencies to share supplies and equipment

    <u>Expansion of on-site surge capacity</u>
    - Cancellation of elective procedures and admissions
    - Expansion of isolation capacity for airborne diseases (e.g. cohorting in designated units with negative airflow)
    - Conversion of inpatient units to augment ICU capacity (e.g. post-anesthesia care unit, same-day surgery)
    - Establishment of alternate care areas on site (with beds, staffing and equipment)
        - inpatient unit hallways
        - decommissioned ward space
        - non-clinical space (e.g. offices, storage areas, conference rooms)
    - Setting up temporary facilities when the hospital is unusable (without power or flooded, etc.)

- Agreements with other outpatient facilities to augment outpatient services during a public health emergency

Priority setting for limited resources
- Methods to deliver potassium iodide in response to radioactive release
- Regional multi-hospital coordination of standards of care during a pandemic or other mass casualty incident
- Process to be followed when adjusted standards of care are necessary for use and withdrawal of mechanical ventilation
- Triage processes for other limited intensive care resources

Expanding on-site health care work force
- Staff absenteeism from personal or family repercussions from the emergency
- Advance registration of volunteer health professionals
- Mutual aid agreements with other agencies to share health care providers
- Continuity of operations

Mass casualty management
- Fatality management
- Establishing an on-site large capacity morgue during a mass casualty incident
- Hospital evacuations

Pediatric
- Guidelines on increasing pediatric surge capacity
- Protocol to identify and protect displaced children rapidly
- Tracking system for accompanied and unaccompanied children
- Reunification of children with families

Special populations
- Mechanisms to minimize communication difficulties in dealing with handicapped or vulnerable populations
- Sheltering of pregnant women
- Sheltering of patients with special health care needs

Communications
- Notification of alerts from your state/local health department
- Participation with local public health in public influenza education, vaccination or awareness campaigns

- In how many mass casualty drills, simulations or exercises has your hospital participated in the last year?
  - Internal drills
    - Full scale simulation
      - How many victims?
      - How long did the drill last?

        - Table-top exercises
    - Drills in collaboration with other organizations (e.g. law enforcement, health department, emergency management, fire department, emergency medical services, hazardous materials teams, decontamination teams)
        - Full scale simulation
            - How many victims?
            - How long did the drill last?
        - Table-top exercises
    - What scenarios did the drills, simulations or exercises address?
        - General disaster and emergency response
        - Biologic accidents or attacks
        - Severe epidemic or pandemic
        - Mass vaccinations
        - Mass medication distribution to hospital personnel
        - Mass medication distribution to community
        - Chemical accidents or attacks
        - Nuclear or radiological accidents or attacks
        - Decontamination procedures
        - Explosive or incendiary accidents or attacks
    - With which organizations were the drills or exercises performed? (Choices will be yes, no, not present in community)
        - State or local law enforcement
        - State or local public health department
        - State or local office of emergency management
        - Fire department
        - Emergency medical services (EMS) – fire department based
        - Emergency medical services – not based in fire department
        - Hazardous materials (HAZMAT) teams
        - Decontamination teams
        - School systems
        - Day care organizations
        - Long-term care facilities
        - Industrial or commercial organizations

- What resources and capabilities does your hospital have available in-house in the event of a mass casualty incident (total numbers)?
    - Mechanical ventilators
    - N95 masks to supply all patient care providers for at least one week
    - Personal protective suits with powered air-purifying respirators (PAPR)
    - Emergency department treatment spaces
    - Critical care beds (e.g. intensive care, pediatric intensive care, coronary care, post-anesthesia care)
    - Negative pressure isolation rooms
    - Regular inpatient staffed beds
    - Decontamination showers
        - How many ambulatory patients can be handled per hour?

        - How many stretcher patients can the shower handle per hour?
    - Designated cache of antibiotics for hospital employees

- What is the total number of hours that your hospital's emergency department was on ambulance diversion in 2007?

- What is the total number of hours that your hospital was on trauma diversion in 2007?

- What is the total number of hours that your hospital was on diversion for critical care cases in 2007?

- Title of person completing the questions

3. Test of Procedures or Methods to Be Undertaken

A pilot test of the earlier supplement was conducted by the Census Bureau in October 2002 in three hospitals in each of three Regional Offices. All of the respondents were cooperative. Some provided suggestions for improving the form and minor revisions were made. This survey was fielded in 2003 and 2004, with no major issues related to questionnaire design. The current survey has minor modifications that are not anticipated to lead to major procedural problems.

4. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing the Data

Statistical and methodological consultation was provided by:

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