COCA Conference Call – Disaster Surveillance
Amy Funk Wolkin and Rebecca Noe
October 26, 2007

Coordinator: Welcome and thank you for standing by. At this time, all participants are in a listen-only mode. During the question-and-answer session, please press star 1 on your touch-tone phone. Today's conference is being recorded. If you have any objections, you may disconnect at this time. Now I will turn the meeting over to Ms. Alicia Downs. Ms. Downs, you may begin.

Alicia Downs: Thank you. Good afternoon and thank you for joining us for today's COCA conference call on disaster surveillance. We are very pleased to have Ms. Amy Funk Wolkin and Lieutenant Commander Rebecca S. Noe present.

We will be using a PowerPoint presentation for this call that you should be able to access on our Web site. If you have not already downloaded the presentation, please to www.emergency.cdc.gov/coca.

Click on the conference call information, summaries and slide sets, and the PowerPoint can be found there. Our speakers are both epidemiologists here at the Centers for Disease Control and Prevention.

Rebecca Noe works in the National Center for Preparedness, Detection and Control of Infectious Disease in the Division of Bioterrorism Preparedness and Response.

She is also a family nurse practitioner. Ms. Wolkin works in the National Center for Environmental Health in the Division of Environmental Hazards and Health Effect in the Health Studies Branch.

She has been responding to disasters for the past five years as environmental epidemiologist. Both speakers serve as project officers for the Disaster Surveillance Workgroup here at CDC.

The goal of this workgroup is to coordinate and develop standardized surveillance tools. The objectives for today's call are after this activity, the participants will be able to review potential public health impacts of a natural disaster and describe disaster surveillance.

That participants will be able to discuss challenges and disaster surveillance and describe data sources and critical data elements needed in disaster surveillance.

And we'll be able to describe the Centers for Disease Control and Prevention's agency role in a natural disaster and their message for coordinating federal, state and local disaster activities.

In compliance with continuing education requirements, all presenters must disclose any financial or other relationships with the manufacturers of commercial products, suppliers of commercial services or commercial supporters as well as any use of unlabeled products or products under investigational use.

CDC, our planners and the presenters for this seminar do not have any financial or other relationships with the manufacturers of commercial products, suppliers of commercial services or commercial supporters.

This presentation does not involve the unlabeled use of a product or product under investigational use. I will now turn the call over to Ms. Amy Wolkin. You may begin.

Amy Wolkin: Good afternoon. Next slide. My name is Amy Wolkin. Today Rebecca Noe and I will be speaking about disaster surveillance. Next slide. I will first review disasters and the importance of conducting surveillance during and after a disaster. Then, as an example, I'll briefly describe the public health response during Hurricane Katrina, what federal and national assets were deployed, and describe the morbidity surveillance systems that were implemented in the healthcare facilities and in evacuation centers. Lastly, Rebecca will discuss CDC's Disaster Surveillance Workgroup, its inception, our work to date, and future activities. [Slide 3]

After this call, you should be able to review potential public health impacts of a natural disaster and describe disaster surveillance, discuss challenges in disaster surveillance and describe data sources and critical data elements needed in disaster surveillance, and describe the Centers for Disease Control and Prevention's agency role in a natural disaster and their message for coordinating federal, state and local disaster activities. [Slide 4]

The following is the definition of disaster according to the United Nations Department of Humanitarian Affairs, the World Health Organization, and the text definition of disaster according to Gunn's Multilingual Dictionary of Disaster Medicine and International Relief, "A disaster is a serious disruption of the functioning of the society, causing widespread human material or environmental losses that exceeds the local capacity to respond and calls for external assistance." There are two basic components in this definition. The

first is disruption and the second is that the disruption exceeds the local capacity to respond. [Slide 5]

This is a quote from Eric Noji, the editor of a book entitled, *The Public Health Consequences of Disasters*, "Disasters are defined by what they do to people. Otherwise, they are simply interesting geological or meteorological phenomena."

Natural disasters are unforeseen and often cause major loss of human lives and livelihood. Though disasters are far from preventable, the potential exists to reduce their effects on the health of the population. [Slide 6]

Disasters are a public health problem because they cause unexpected numbers of deaths, injuries and illnesses that exceed available health resources. Disasters may destroy local health infrastructure and emergency response capabilities, including the interruption of communication and power outages. They may cause adverse effects to the environment, leading to increased risk of disease for humans. And, disasters may cause large populations to move to new areas that may lead to increased morbidity and mortality. For example, inadequate sanitation in displaced person shelters, food or water shortages, and psychosocial issues. [Slide 7]

Disaster epidemiology is the use of epidemiology to assess the short- and long-term adverse health effects of disasters and to predict consequences of future disasters. Surveillance is a disaster epidemiology tool that is used to assess health effects, monitor the effectiveness of relief efforts, respond to public concerns and media inquiries, and facilitate planning for future disasters. [Slide 8]

The public health definition of surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of data about a health-related event for use in public health action to reduce morbidity and mortality and to improve health. [Slide 9]

Active surveillance during a disaster is important for several reasons. Active or sentinel surveillance activities complement regular reporting mechanisms that might be disrupted because of the disaster. Additionally, active surveillance can be used in non-traditional settings. For example, if a segment of the population was displaced into say an evacuation center, regular reporting mechanisms do not have the flexibility to be implemented in these temporary shelters.

Active surveillance allows for public health officials to rapidly detect infectious disease outbreaks and to define or measure morbidity of other health problems among the affected population. In addition, morbidity surveillance data can help state and local jurisdictions identify groups at risk for adverse health events and determine priorities of special needs populations. [Slide 10]

Active surveillance can help target relief efforts. Combined with reports from other federal agencies, state-reported morbidity surveillance data can help identify needs, optimizing the relief response. Likewise, it can monitor the effectiveness of the relief effort. Surveillance data can be used to respond to public concerns and media inquiries. Finally, a review of data from disaster surveillance can be useful in facilitating planning for future disasters. [Slide 11]

For those of you following along with the slides, we're on the Hurricane Katrina slide. Next, I'm going to talk about the public health surveillance

efforts during Hurricane Katrina. So what happened during Hurricane Katrina? [Slide 12]

The aftermath of Hurricane Katrina left almost 1,500 people dead in Louisiana and over a million people evacuated. About 800,000 of the evacuated were displaced and 300,000 took shelter in temporary evacuation centers. Despite the New Orleans mandatory evacuation order, nearly 100,000 people remained in the city and were at risk for health problems including violence related to civil unrest, health hazards caused by exposure to flood waters and cleanup activities, and the lack of healthcare because of infrastructure failure. [Slide 13]

The CDC collaborated with many agencies during the response to Hurricane Katrina. One of the federal agencies includes the National Disaster Medical System, Disaster Medical Assistance Teams, DMATS. The DMATS, a group of medical personnel, are a group of medical personnel designed to provide emergency medical care during a disaster. Some of you on the phone may be a member of these teams. DMATS were deployed to disaster sites with sufficient supplies and equipment to carry out triage, medical care, and evacuation of disaster victims. During Katrina, about 6000 DMATS personnel were deployed in 102 teams with over 165,000 patients treated by DMATS teams. [Slide 14]

Another federal partner was the American Red Cross. The American Red Cross provided shelter, food, health, and mental services during the Katrina response and over 200,000 volunteer staff, 1200 evacuation centers in 30 states. Health and Human Services, which includes us at the CDC, provided many teams, including medical services, and epidemiology and surveillance field teams. The majority of the epidemiology and surveillance team members

were public health service officers, CDC epidemic intelligence officers, and other CDC staff. [Slide 15]

After landfall of Katrina, CDC in partnership with other federal, state and local agencies conducted multiple public health activities including public health surveillance. CDC created surveillance teams in eight different states including Texas, Louisiana, Mississippi, Alabama, Georgia, Florida, Arkansas and Virginia. We also had ongoing surveillance in 12 states. Data sources for the surveillance systems were from healthcare facilities, including hospitals, emergency departments, clinics, disaster medical assistance teams, and military treatment units. Data also came from evacuation centers. Partners in these surveillance activities were local and state health departments, American Red Cross, DMATS and U.S. Public Health Service. [Slide 16]

Sentinel, or enhanced Surveillance, in New Orleans, was implemented because of the infrastructure loss to the Louisiana Health Department, concern for outbreaks and the immense political pressure. Surveillance was enhanced to capture all patients that access care in any open New Orleans healthcare facility. Data were collected on each patient using a one-page form. The morbidity surveillance form included categories for 30 illness disease syndromes, 4 mental health conditions, 15 trauma injury conditions with detailed etiology including body part affected and nature of injury. In addition, medication refill, severity and disposition were recorded. [Slide 17]

I'm now going to describe the surveillance that was conducted at healthcare facilities in New Orleans. Forms of each clinical encounter were collected at the healthcare facilities every 24 hours. The forms were either completed by the healthcare facilities or they were completed by CDC staff at the healthcare facilities through a record review process. Data collection was found to be very labor-intensive because of the numerous locations where medical

treatment was provided, which included eight hospitals, six DMATS, five clinics, and ten military facilities.

Each record had to be transferred from the paper form into an electronic database. Daily incidents of the syndromes were reported to the Louisiana Department of Health and CDC. After six weeks, the paper-based system was transitioned to an automated syndromic surveillance system. [Slide 18]

I am now going to present the results. Over 25,000 case report forms were entered into the system. As you can see from this table, chronic disease and medication refill were the most common reported categories in healthcare facilities in New Orleans. [Slide 19]

Now I'll speak about the other surveillance system which CDC established and maintained during Katrina response among Katrina evacuees in Louisiana. There were nearly 500 evacuation centers established in Louisiana. The number and size of these evacuation centers fluctuated and the healthcare services provided in these centers varied.

The form used for this surveillance system was different from the one used in the healthcare facilities. It aggregated the number of cases seen in an evacuation center rather than report each case individually as the form used in the healthcare facilities did.

The surveillance form recorded the number of patient encounters during a 24-hour period at an individual evacuation center. The number of patient encounters for selected signs and syndrome categories included nine illness disease syndromes, three mental health conditions, and five trauma injury conditions.

In addition, medical nursing staff, medical supplies, and medication needs were reported on the evacuation center surveillance form. Incidences of syndromes were monitored daily and data were analyzed using the statistical software EARS, the Early Aberration Reporting System. [Slide 20]

The surveillance team received nearly 3000 aggregate surveillance forms reporting on approximately 40,000 patient encounters during its 49 days of operation. As you can see from the table, the majority of the visits were acute care and infectious diseases with influenza-like illness and rash being the most commonly-reported communicable disease syndrome. No significant outbreaks were detected. On average, 33% of the evacuation center population was under surveillance each day. [Slide 21]

CDC also collected data from other Katrina evacuee surveillance systems. Surveillance systems in Arkansas, Mississippi, and Texas regularly reported data to CDC. Data sources from these systems included both healthcare facilities and evacuation centers. The number of healthcare facilities and evacuation centers reporting to these systems fluctuated.

In addition, the data reported varied. For example, some states reported three distinct types of gastrointestinal illness such as diarrhea, cramps, and vomiting, whereas others aggregated all GI-related symptoms and collectively reported them as GI illness.

Morbidity rates could not be calculated because not all healthcare facilities reported the total number of patient visits and not all reporting evacuation centers provided facility population data. [Slide 22]

Given these surveillance activities, what were the Katrina data interpretation challenges at the federal level? The challenge was integrating daily

surveillance data from systems which varied by the number and specificity of conditions under surveillance which is illustrated by these two graphs.The top graph is from the Georgia evacuation center and it reports the rate of diarrhea and vomiting as one syndrome. The graph below is from New Orleans. Here, diarrhea is presented separately from vomiting and is reported as a percentage rather than a rate. Because there are different numerators, “diarrhea or vomiting” versus “diarrhea” by itself, as well as different denominators, rate per 1000 evacuees versus percentage of patient visits, the data cannot be analyzed together.

Other challenges included the dissimilar locations of surveillance activities such as healthcare facilities versus evacuation centers. Furthermore, the Katrina population under surveillance varied tremendously and the evacuation centers opened and closed. Finally, the variation and modification of forms used for data collection was widespread, even for the system in New Orleans. These challenges underscore the importance of standardized surveillance that supports a collaborative and integrated approach to monitoring and reporting health status of affected populations. [Slide 23]

I am now going to describe lessons learned from Hurricane Katrina surveillance efforts. First, surveillance provided valuable information. Surveillance data let us know that there were no significant outbreaks. It helped us to address the media and diffuse rumors, and we were able to measure the burden of chronic condition. However, there was no standardized method of collection which meant that we had a lack of common data and information. We also did not have standardized denominators because each entity was collecting their data differently. [Slide 24]

What are some of the things that need to happen prior to the next disaster? Prior to the next disaster event, we need to consider the following. We need to

address the fact that surveillance and data collection is time-sensitive. We need to determine how to manage the need for different reports from various entities and consider how they will use the data we collect, and it is important that we remember we are partners with the local, state and federal organizations and need to include them in our planning for future disasters. [Slide 25]

Now, I'm going to turn it over to Rebecca Noe to discuss CDC's disaster surveillance workgroup, which was a direct result of after-action meetings and evaluation efforts following the last major disaster.

Rebecca Noe: Thanks, Amy. Please go to [slide 26]. Why was the CDC disaster surveillance workgroup established? The surveillance approaches taken during Hurricane Katrina that Amy presented really varied in regards to data sources available, what data elements these sources or facilities could or would collect.

In addition, there was great variability in the data collection methods. Some systems such as in New Orleans sent personnel to the facilities to collect the data, whereas in the evacuation center system, forms were sent by fax to a command post. Lack of uniformity among these two critical steps in surveillance (data available and data collection), directly impacted the ability of state public health and CDC to interpret the data in an effective and efficient manner.

The overarching lesson was a need for standardization of these aspects of surveillance. The disaster surveillance workgroup was established to assist in the development of these standardized guidelines and tools for morbidity disaster surveillance. [Slide 27]

Why is standardized surveillance data critical? CDC in collaboration with our state and local partners, consolidate and interpret morbidity data from the disaster zone to target response deployments. Standardized data is also important in the prevention and control of outbreaks. Additionally, surveillance data, if standardized, allows for each level in the public health system, to accurately monitor the effectiveness of their relief activities. The next slide [slide 28] describes the disaster surveillance goals.

The goals of the disaster surveillance workgroup are to provide technical resources to partners, especially to identify those critical post-hurricane health outcomes, to standardize post-disaster surveillance tools, and to help facilitate data management methodology for rapid processing and reporting of surveillance information. Another goal is to distribute disaster surveillance tools to further increase the likelihood that multi-setting, multi-jurisdictional information is comparable. Finally, the disaster surveillance workgroup, have evaluated our tools and methods and are revising our tools/guidelines which will improve disaster surveillance efforts and therefore improve situational awareness and response.

[Slide 29] I will now speak about the inception of the disaster surveillance workgroup. Our workgroup began after Katrina. Several of the CDC team leads in New Orleans from the National Center for Environmental Health and the National Center for Infectious Disease facilitated the establishment of this workgroup. DSWG members included several subject matter experts across CDC centers--- scientists from injury, both unintentional and violent, mental health subject matter experts, NIOSH (the National Institute of Occupational Safety and Health) representatives, and representatives from the chronic disease and reproductive health. We also reached out to national partners involved in disaster response which included the National Disaster Medical Services, the American Red Cross, and our state collaborators in the Gulf and

Atlantic coasts. This included state epidemiologists, CDC senior management officials, career epidemiology field officers, and BT coordinators. [Slide 30]

Our early work began with review and evaluation of previous disaster surveillance efforts, looking at the data collection methods and materials and especially those used during Hurricane Katrina and Rita. The first activity focused on determining those critical elements that needed to be captured during a disaster, and this was facilitated by the disaster surveillance workgroup revising with other members in the workgroup the morbidity forms that were actually used in the field in Katrina.

This process was very labor-intensive. We first held cross-center after-action meetings. Then we conducted bi-monthly disaster surveillance workgroup meetings for about six months, and along with individual “homework” between meetings which was completed by the different individual members, such as DSWG members from injury, chronic, and NIOSH,---each identifying what were their critical elements that they would need to capture on a one-page surveillance form.

[Slide 31] What have we done so far? Well since January 2006, the CDC individual and aggregate morbidity forms were revised through input of the disaster surveillance workgroup members in the different subject areas and also with some feedback from the southeast states.The revisions included the DSWG agreements on critical data elements allowing for the standardization of these forms. During the same time period, disaster surveillance workgroups reached out to American Red Cross and assisted in the revision of their shelter morbidity form, ---many of the data elements on that form were very comparable to the DSWG surveillance form. We also reached out to NDMS to strengthen collaborations and also assist them with their new electronic

medical record. And then the DSWG was awarded internal funding from CDC to continue our activities.

Over the next few slides, I'm going to briefly introduce the revised individual and aggregate morbidity surveillance forms that can be used during a natural disaster response and in particular I'll share the data elements that make up the individual form.

The next slide [slide 32] titled "CDC revised individual surveillance form," shows the form. This form should be used to collect patient-level data on infectious and non-infectious conditions in the clinical care setting. The goal is to collect data on every patient but this does require that the facilities have adequate staff and that this level of detailed data is needed for public health decision-making.

[Slide 33] The other form is the aggregate surveillance form. This form should be used to collect facility-level data and mainly this focuses on infectious conditions in temporary shelters such as an evacuation center. The reason for using the aggregate form would be when resources are strained and therefore only overall counts of patients can be reported.

[Slide 34] Now, I'm going to give general instructions and guidelines on how these forms should be completed. We envision these forms will be completed in triage or in an emergency department. The data collectors typically would be a health professional, preferably an MD, an RN or a medical student. The data can be gathered from a review of the patient record or during the interview or evaluation of the patient. We suggest that you check-off all the variables that apply because there is no hierarchy of syndromes which allows flexibility in the analysis of the data.

[Slide 35] The next couple of slides, I'm going to talk about the individual clinical care form for you to get a sense of the information that would be captured specifically those critical data elements. The top of the slide captures basic demographic information. As you can see on the right-hand lower corner, the data element is asking if the person is pregnant or not, which was not captured on the form used in Katrina .

On [slide 36], we present two different data elements, injury data elements and acute illness data elements. If you look at the injury data elements, you can see that our focus was on injury mechanisms only, and the reason for this was that if somebody falls and it results in a fracture or a bruise, your public health injury prevention, intervention or message would not change. The form does try to capture specificity of certain disaster conditions which will require immediate public health response. An example of this would be carbon monoxide (CO) exposure variable. Here we differentiate between CO exposure from a generator and other source so as to target your public health messages. The acute illness data variables includes the typical syndromes or conditions that you would see during a disaster such as rashes, GI illness, meningitis and encephalitis, and would want to identify so that you could follow-up with immediate public health action.

[Slide 37] shows the variables for chronic disease, mental health, and OB-GYN conditions. We really struggled to try to limit ourselves to collect only that information which could be considered critical during a disaster to make immediate public health intervention. So developed these core data elements with feedback from each of the different centers at CDC and some feedback from the states.

[Slide 38] On the bottom of our form, we collect two variables. One is work-related injuries or illnesses, which was found to be a prevalent issue in New

Orleans and was of great interest among scientists at NIOSH, (the National Institute of Occupational Safety and Health). We also collect the disposition which we would use as a proxy for severity; those who died or admitted would be considered more severe illness or injury.

As you can see on the next slide [slide 39] titled “Disaster surveillance activities, summer 2007,” we’ve accomplished a lot. The first accomplishment this summer was that we had the National Disaster Medical System visit CDC and demonstrate their new electronic medical record. In collaboration with several of the DSWG (CDC disaster surveillance workgroup members), NMDS decided to includ in the EMR chief complaint drop down box, variables that are comparable to DSWG’s (disaster surveillance workgroups’) variables on the individual form.This now allows for some comparability. NMDS will be collecting in their EMR chief complaint box some of the syndromes that are on our individual form.

Also this summer we were able to pilot test our tools including our form. I’ll speak about this on the next slide, and discuss our use of information technology which included our advanced technology data collection tools. The pilot was done in collaboration with the Georgia Department of Public Health and also the CEFO program at CDC.

[Slide 40] presents our pilot. Specifics on the pilot test were that it happened in July/August 2007, and was completed in late August. The results will assist us in validating and evaluating the surveillance form as well as comparing the data collection advanced technologies that we employed in the field. Our goals were to determine the sensitivity and the specificity of the clinical syndrome and outcome variables through comparing what was captured on our form to an ER discharge record. We assessed the effectiveness of our advanced technologies through comparing the data collection modalities such

as a paper form that was filled-out in the ER and compared this paper form to a PDA filled out on the same patient, and then also looking at that PDA data collection tool against a scannable methodology. We wanted to assess the timeliness and the accuracy and the usability of these different modalities. The preliminary results of this pilot have helped guide revisions of the variables on the data collection tool and we're in the final stages of completing this analysis and are re-adapting our tools accordingly.

In 2008, the DSWG (CDC disaster surveillance workgroup) will be presenting these results to our partners, specifically the southeast states, NDMS and also the Medical Reserve Corps.

In summary [slide 41], if a hurricane hit tomorrow, what would CDC need from clinical responders? Well, first we hope this talk provided you some insight that clinical data is public health data and that this data –the data you captured during clinic visits during a response –is useful to public health in making decisions. When you're in a field hospital or clinic and you're seeing patients the clinical information needs to be collected in a standard way to be useful to public health. A standard surveillance form, whether it is your state's form, DSWG (CDC the disaster surveillance workgroup) form, American Red Cross, or NDMS, should be filled out because this provides valuable public health information. Also in these austere conditions, clinicians need to know how are they are to report unusual clusters or any communicable disease to the public health authorities. Lastly, we (DSWG) really are interested in getting clinicians feedback on these surveillance efforts. We realize that your time is valuable and you're a valuable partner and we often need your assistance to collect this information. We don't want to overburden you with forms or requests and therefore your feedback in trying to streamline this process is invaluable.

[Slide 42] Our future activities will be to focus how DSWG (disaster surveillance workgroup) can facilitate this standard approaches to surveillance but we realize that not one size fits all. Different states have different tools, have different ways they want things reported, but we envision that our tools can help and assist and guide this goal to improve a methodology approach to disaster surveillance.

Surveillance efforts must be tailored to answer these critical questions that are listed on the slide:

- What are the questions that decision-makers need to answer during this event?
- How large is the affected population?
- What resources are available in the jurisdiction and what information sources are available?
- and what timeframe exists for providing results?

Our goal for this next year in 2008, along with sharing with our partners our pilot results, is to incorporate wider state involvement and getting feedback on the tools we have developed. We know that some items on our tools need to be adapted and we hope that with reaching out to states that they can assist us with this. Additionally there may be things that DSWG has been doing that can assist certain states that haven't moved their disaster surveillance guidelines as far as they'd like.

And I'd like to - next slide - I'd like to thank you very much for your attention and this opportunity to share with you a little bit of what we've been doing here at CDC.

The next slide [slide 43] has our Web links where our forms are on the CDC website. We also have data collection tools for our forms that are available on request, including an EPI-Info and scannable data collection tools.

And finally on the next slide is our contact information. You can contact anyone of us or send an email to DSWG email address on this slide. We would be happy to respond to your questions now. Thank you very much.

Alicia Downs: We can now open up the lines for questions.

Coordinator: Thank you very much. At this time, if you would like to ask a question, please press star 1 on your touch-tone phone. Please unmute your phone and record your name clearly when prompted. Your name is required to introduce your question. To withdraw your question, press star 2. Once again, to ask a question, please press star 1. One moment please. Our first question, your line is open.

Question: Yes, I wondered if the group had any plans to go beyond these kinds of forms and the data collections that you've been talking about and maybe get into resource typing like the state of Florida and North Carolina have been doing. Tell us what kind of people we need to have in place at public health to deal with all this data coming in and assist the clinicians in collecting it.

They'd rather have them taking care of patients than filling-out data forms.

Rebecca Noe: Hi, this is Rebecca. That is a great question and just to restate your question, your question is if we're going to help with giving guidelines on the resources to create say a response team, how CDC would envision this say having a team lead with this many epidemiologists to go out in the field with this many data collectors. Is that your question?

Question cont'd: And some basic kind of training that we would need to have for the people who are going to go out, you know, these PDAs or whatnot that they need to use. We're trying to work on resource typing for strike teams and that sort of thing?

Rebecca Noe: Right, and I think that we have done a little bit of that with Health and Human Services. They have response teams, and we have done some training with the form on a PDA, but I think that that's definitely an area that we would like to go. I think one of the things we learned from the pilot, its definitely hard to specifically state what resources you would need prior to an event because sometimes when you get to the field, the needs change or are sometimes different.

For example, we went to one hospital to collect data and once you got there you realized there were four entry points for patients to come in, and we didn't have enough PDAs in the field.

I think there's definitely an area to develop some guides, maybe with strike teams, but again, the question of needs in the field, sometimes there's changes that need to be done on the fly. Thank you for your question.

Coordinator: Thank you. Your line is open.

Question: Hello. Is there a reason why CDC has not just come out and made one clinical care form for everybody to use so this can all be scanned into one report for any other reason for health and for surveillance?

Rebecca Noe: Good question. In an ideal world, that's what we would have, but we have a lot of partners and there's a lot of states and different localities involved, and

it's hard to get everyone to agree to one form, which is why we'd rather standardize variables that are going to go on the form so that individuals can make slight changes if they wanted to.

But we are trying to create a package here at CDC where we have a form and we have it already built in a database and it's in a PDA and it's scannable, and you can use that if you'd like.

But if you don't want to use that, hopefully you'd take at least our vocabulary and use it so that we then can collect all the data, but we definitely agree with you and we wish that everyone would use this one standard form, but we can't even get the individual centers at CDC to agree on one form, so I don't think we could get all 50 states to agree to one form.

Question cont'd: Thank you.

Coordinator: Thank you. Our next question, your line is open.

Question: Yes, hello. Is it possible to have all of this electronic forms?

Rebecca Noe: This is Rebecca. Yes, we tried that with our pilot to have the form on a rapid data collector as well as in EPI-Info. If you use only an electronic form, the question is if you'll need to have that backup of a paper form ---so if you're in a really austere environment where there is no electricity, if you only have it in electronic format then you will not be able to collect the information.

But that is the goal. It's not as easy as it seems. It would seem like it'd be easy, the fact is, if you have a form and you want to change a question, you'll have to change on every electronic format or platform that you have it on.

But that is as Amy just mentioned, we do have the form on a PDA, this rapid data collector at CDC, as well as EPI-Info, so it's already ready to be deployed if people want to use it, it can be very useful but again with some caveats.

Question cont'd: Also, yesterday when I tried to access the forms, they are very difficult to access.

Rebecca Noe: Those links?

Question cont'd: Yes.

Rebecca Noe: Okay. I apologize. We'll check into that. If you can leave your name and e-mail address, send us the question and we can get you those forms.

Question cont'd: I will send it to E-H-I-N-G for help, that is the problem. It's very difficult to access.

Rebecca Noe: If you could send it to the COCA e-mail, …

Alicia Downs: Yeah, the COCA e-mail is coca@cdc.gov.

Question cont'd: Okay, I'll do that. Thanks.

Rebecca Noe: Thank you, and I apologize to anybody else having problems with downloading them. We're in the process of moving those forms. They're on an BT Web site and we're trying to bring it over to a NCEH disaster surveillance Web site, so I apologize for that.

Coordinator: Thank you. Your line is open.

Question: Hey, yes, my questions, actually several of them, have already been answered, but as far as the - I'm looking at the aggregate surveillance form that is to be used mostly for temporary shelters and evacuation centers.

And, my question is, how do those centers find out about the forms and back to the training question, how are they trained on how to use the forms?

Rebecca Noe: Well, this is Rebecca again. We envision that most states will use the aggregate form because of limited resources during a disaster. CDC has to be invited by the state to assist.

This coming year DSWG wants promote what we've created, we hope that working with state epidemiologists, also with, we have CEFOs which is a CDC program that places epidemiologists in the states, ----these are people in the state that will getting the word out.

But we can't really force - as we mentioned before - we can't force states to use what we've developed. We would just hope that if a state didn't have any forms and they typically do this, - they will request CDC for some assistance to develop some tools or surveillance forms, and now that we have these available and we could send these rapidly to them.

Again, it is the state epidemiologist who needs making that decision.

Amy Wolkin: And they can also make the request for us to come in and do some training if they would like.

Rebecca Noe: Right, and we've conducting training this year, we've trained the Health and Human Services response team and as well as we did go to one meeting with the Medical Reserve Corps.

And that's a whole area where a lot of you out there that are clinicians may be involved in ---the Medical Reserve Corps. If you're deployed on a MRC team to a different state and people want you to collect surveillance information on say a 20-page form, we would ask if you could please tell the officials in charge that CDC has a really 1-page form that for surveillance data collection.

We understand that we are at the beginning stages of people getting to know about what the we're [DSWG] is doing.

Question cont'd: Okay, thanks.

Coordinator: Thank you. Your line is open.

Question: Hi, two answers and one question. First, for the resource typing, the National Incident Management System Integration Center has been working on resource typing for public health and they should be having answers out shortly on that.

The second question that the last person just asked was how do you get the evacuation centers trained up, and in Louisiana, we relied a lot on just-in-time training because we had such a huge turnover in the evacuation center staff.

And then the question, Rebecca, have you guys looked at what triggers you would use to implement the individual level data collection system plus the aggregate system?

Rebecca Noe: No, we haven't defined any triggers because I think that most of us feel that probably the aggregate is what people are going to use. The interest of revising that individual form is because it is what we used in Katrina, as you know, since you were down in New Orleans.

And I think that people realize that there may be that potential but again, your point is taken. What is the trigger that you either need to do individual data or aggregate? I don't think most people feel that in an evacuation center that they would do individual, and I think at this point, most people feel they would use that aggregate form.

Question Cont'd: Okay.

Rebecca Noe: Thanks for calling in.

Question cont'd: Yeah, talk to you later.

Coordinator: Thank you. Your line is open.

Question: Yeah, I just wanted to follow-up with the question that you've developed some of these rapid data collection, EPI-Info, scannable. Are they all available out at the Web site so we could download the database in whatever stage it's at, or is it just the two forms?

Rebecca Noe: You would have to make a request to us and we would send you the tools. The scannable has our individual form that is up on the website, but you would have to have scanning software so you would then have to - whatever software you have - redo the form for your particular software.

You can make a request. We did the PDA onen rapid data collector which is a CDC software that is free and available to anyone, you just have to make a request for that. If you send an e-mail to COCA we could get that request put in for you.

Question Cont'd: Okay, so you'll send us the EPI-Info database for both these two forms?

Rebecca Noe: Yes, we can do that. That's not a problem.

Question cont'd: Okay, thank you.

Coordinator: Thank you. Your line is open.

Question: Yeah, on slide 39, on the individual clinical care form, I didn't see a signature block for the healthcare provider or nurse to fill-out and also would a person that signs this form be responsible during compensation claims for those workers and/or volunteers?

Rebecca Noe: Hi, this is Rebecca. That's a great point, because down in Katrina, the form had your signature at the top as a kind of a quick tract of who completed the form- actually, it was your initials - so they could find you completed the form. This might be something to consider with providers coming and going in Medical Reserve Corps teams or DMAT teams.

I think the question about of insurance and malpractice—is that CDC is just assisting with developing forms to collect data for local and state health departments not billing.

We're not advocating that CDC would be creating their own let's say DMAT teams and having clinicians come in and fill-out forms for them. This is just a tool for states to use. Was that your question?

Question cont'd: Well, I see it, if you sign a form and they're saying that the condition occurs as a result of work involving hurricane response or restoration efforts, that this form can be used as a claim.

Rebecca Noe: One of the things is that complete the form right now is done from extracting data that's in a medical record or from the patient. But I definitely think that's a great point.

Amy Wolkin: There's no identifying information on the form, so it'd be very difficult for someone to find their own form that was filled-out for them and to use that form for any kind of claim.

If you do see a place on the form that says medical record number, that's a placeholder for an ID number, it's not necessarily someone's medical record number. For example, during the pilot, we put zip code in there and on other forms we used that space for sequential numbering.

Rebecca Noe: That's a great point, because the patient's name would not be on that form.

Coordinator: Thank you. Your line is open.

Question: Thank you. I'm a volunteer nurse with American Red Cross and I'm very familiar with these forms. Since May of '06 we've been using a similar form in our shelters, so it does follow your format of your morbidity report.

So, and I see now you're making adjustments, so for me, it's coming like full circle of having the two ends meet, so I'm glad to see that we are up-to-speed with CDC.

Rebecca Noe: Thank you.

Amy Wolkin: Well, good. And thank you for that comment. You'll definitely recognize the format, the form definitely mimics the American Red Cross. We started-off with the American Red Cross form and then made changes from there.

Question cont'd: Right.

Amy Wolkin: So we appreciate your collaboration.

Coordinator: Thank you. At this time, I'm showing nothing further.

Alicia Downs: Okay, great. Thank you. So, we want to thank our lovely presenters again for presenting this information to our listeners and I want to thank our participants for joining us today. So in case you didn't get a chance to ask your question or think of one later, please send the e-mail to COCA, that's coca@cdc.gov.

The recording of this call and the transcript will be posted to the COCA Web site as they come to us, so be looking for those. You will actually have a year to complete the evaluation in order to obtain continuing education credit, so for the first month, use the code of EC1265 and after that first month beginning January 18th, 2008, the code will be WD1265.

And all continuing education credits for COCA conference calls are issued online through the CDC training and continuing education online system at

www2a.cdc.gov/tceonline/ and all that information is on our Web site as well. So we thank you again and have a good day.

Coordinator: Thank you. That concludes today's conference call. You may disconnect at this time.

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