



# Rogersville, Hawkins County



## Pandemic Flu

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# HX of ETSU/Rogersville Community Partnership

- In 1992 ETSU began a relationship with Rogersville through a grant from the *W. K. Kellogg Foundation*.
- Goal: promote a partnership for community health and for preparing health professionals.
- No longer funded by Kellogg, but have maintained the community commitment in Rogersville/Hawkins County, completing various projects

# Description of Hawkins County

- Hawkins County is the 23<sup>rd</sup> largest county in the state of TN, with population of 56,000
- 480 square miles of classic “ridge and valley” geography with wooded hills separating farms and alluvial pastureland.
- 38<sup>th</sup> Fastest growing County, with 20.2% population growth between 1990-2000 (US Census 2005)



# Description of Hawkins County

- In 2005, 97.4% of the population described their ethnicity as “white” with 14.3% over the age of 65 and 14.1% living below poverty level
- Rogersville is the largest city in Hawkins County with a population of 5,100 as of 2004.



# Description of Hawkins County

	Hawkins Co	TN	US
<b>Education</b>			
<b>% HS diploma</b>	<b>70.40%</b>	<b>75.90%</b>	<b>80.40%</b>
<b>% bachelor's degree</b>	<b>10.00%</b>	<b>19.60%</b>	<b>24.40%</b>
<b>Economic Status</b>			
<b>Per capita income</b>	<b>\$16,073</b>	<b>\$19,383</b>	<b>\$21,587</b>
<b>Median family income</b>	<b>\$37,557</b>	<b>\$43,517</b>	<b>\$50,046</b>
<b>% families below poverty</b>	<b>12.70%</b>	<b>10.30%</b>	<b>9.20%</b>

2000 Census

Image © 2007 DigitalGlobe



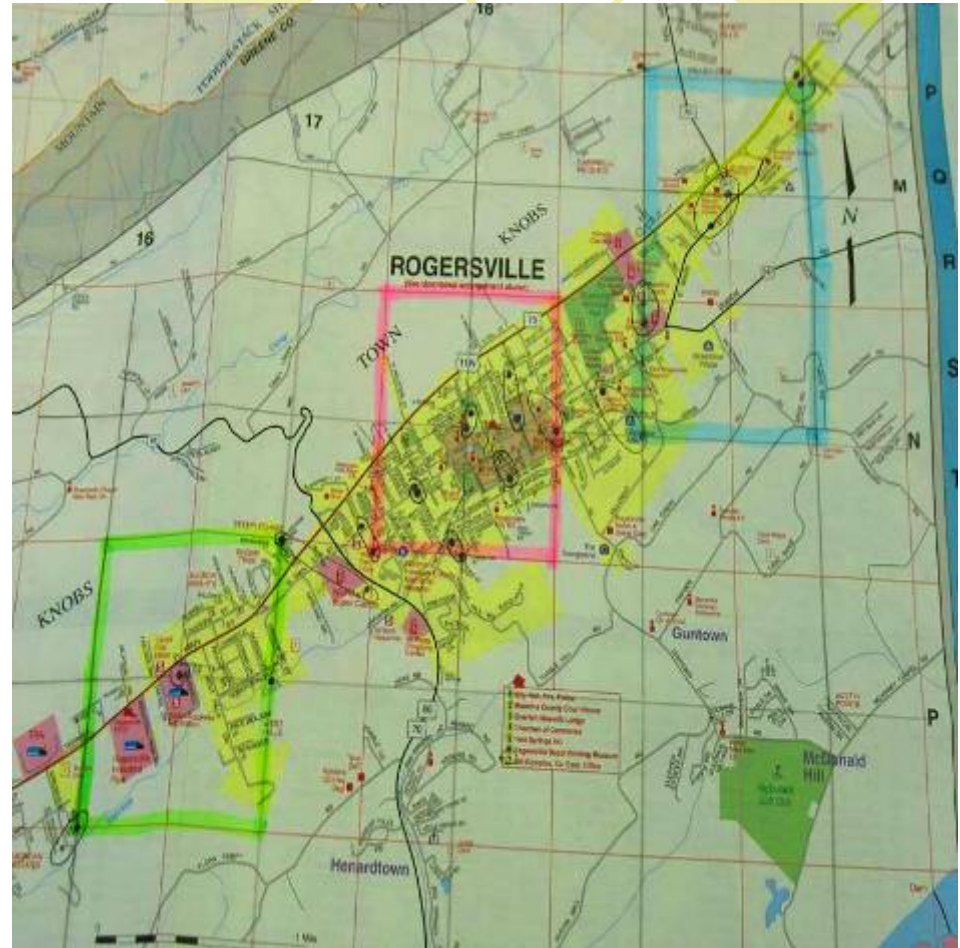
# Overview of Spring 2007 Project

- Our community requested help developing a pandemic flu “toolkit” for local businesses
- Met with some city leaders for preliminary discussion of the topic
- Developed a survey to assess small businesses’ knowledge of--and planning for--pandemic flu.

# The Survey

The survey explored:

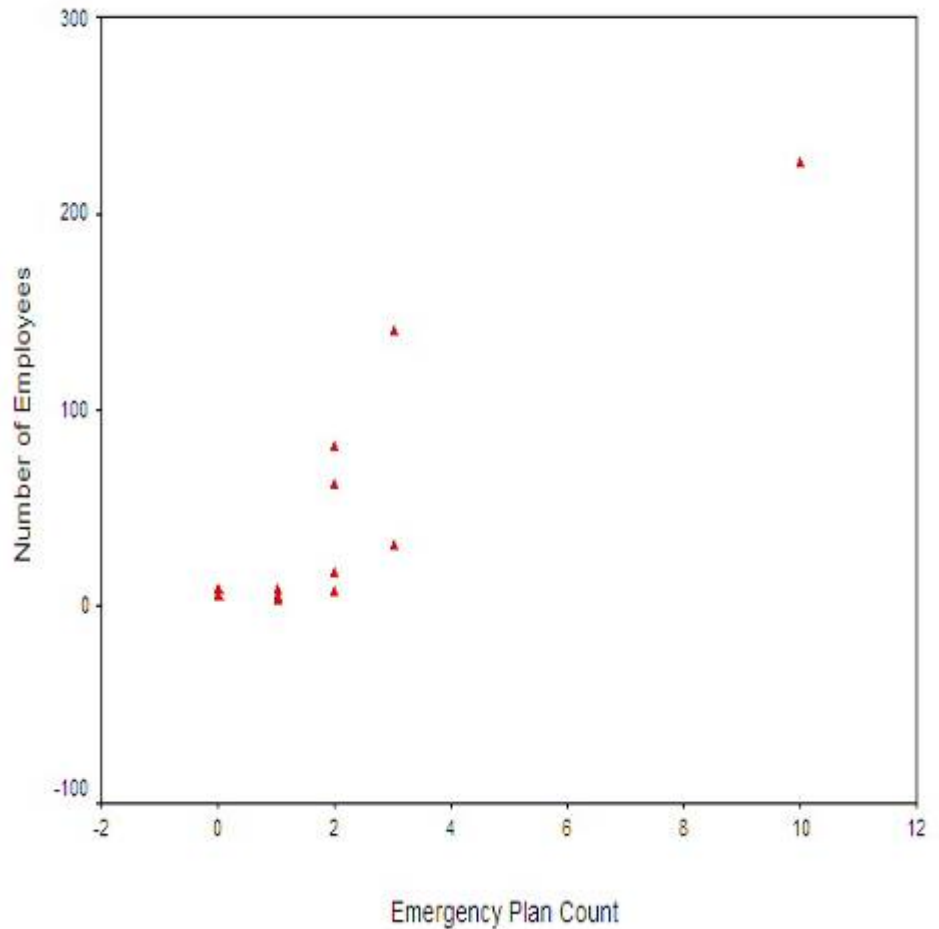
- Demographics of the business
- Numerical ranking of the importance of pan flu vs. other perceived risks
- Emergency response plans developed by the business
- Sick day policies
- Tiered behavioral responses to progressive pan flu scenarios



# Survey Findings (General)

- Relationship between business size and number of emergency response plans
- Businesses **DO** manage risk
- **However, only 7% of businesses reported any formal plan for pan flu.**

Employees vs. Plan Development





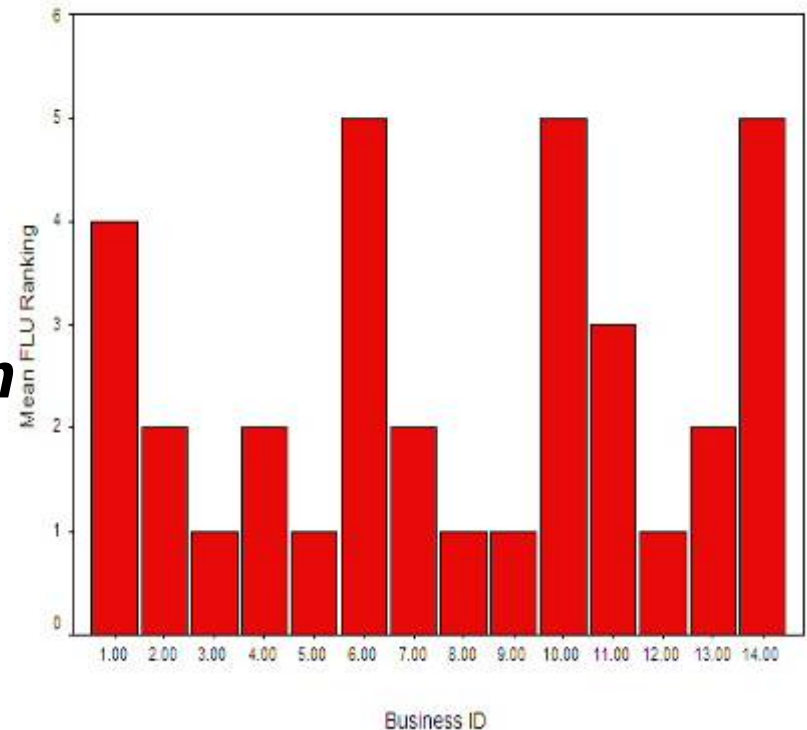
# Survey Findings (Tiered Response)

- ***Only 64% of businesses would make any changes at all when flu is widespread and in county***
- ***21% of businesses report that they would make no changes to the way they run their business with knowledge that a birdflu victim was recently in their place of business.***

# Survey Findings (Risk Rank List)

- Pandemic flu was seen as moderately important in relation to other listed threats. (Average ranking of 2.5 out of 6).
- ***This indicates some general awareness of pan flu***
- ***Lack of pan-planning not from ignorance of pan flu, but pan flu risk assessment (probability, virulence, mortality, etc)***

Flu Risk Rank Responses by Business



# Summary of Findings

- *Businesses **do** manage risk*
- *They **don't** manage **pan flu** risk*
- *The lack of planning is **not** from ignorance of the existence of pan flu*
- *Lack of planning involves pan flu **risk assessment** (probability, virulence, mortality, etc)*
  - Only 64% of businesses would make any changes at all when flu is widespread and in county
  - One senior city official in charge of hundreds of employees said “we have more important things to worry about”

# Intervention Goals from our Spring Research:

- Provide ***motivation*** toward panflu **plan development** by influencing risk management calculation
  - (H5N1 is high probability event, with broad consequences)
- Help identify/develop contacts/organizational structures to potentiate successful responses to pan flu among businesses
- Help businesses develop a usable plan in the event of panflu or similar epidemic.

# *Reorientation* of Project for **Fall 2007:**

## Why?

- Community contacts indicated greater interest in the medical response
- Coordinated medical response key in pandemics
  - This increases our intervention's "footprint"
- Despite Fluplans, little communication b/w responders, providers, etc.
- Suggestion of Kristin Uhde
- A Local Emergency Preparedness Committee (LEPC) was just forming.
  - Broad group of members: engineers, water services, medical, fire, electric,, etc.
  
- Panflu models predict significant morbidity/mortality in Hawkins County
- H5N1 "progress" provided motivation

# H5N1 Evolution Since May 2007

- 25 Jul 2007 **Egypt** 38th human case, **Viet Nam, Balgladesh, Czech Republic** poultry outbreaks
- **United Kingdom** 4 human low pathogenic infections with avian influenza H7N2.
- May 2007 **China** confirms its 25th human case, in Fujian province. .
- Jun-July 2007 **Malaysia Togo Germany France Russia Myanmar** report domestic and wild foul outbreaks
- Sept 2007 **Viet Nam** retrospectively confirms its 96th through 100th cases
- **Indonesia**, has continued to report human infections, and in late October 2007 announced their 110<sup>th</sup> human case.



# Hawkins County and the Panflu Threat

Hawkins County can expect:

- 53,500 persons susceptible to the virus
- Projected: 17,000 w/ clinical disease (3,600 children, 6,800 adults)
- 8,025 seek out-patient care, 161 to 1,605 hospitalized
- Mortality estimates between 16 to 161
- 8 week wave: 76 hospital, 16 rural health and 100 nursing home employees will be absent from work due to fear, illness or to care for a family member
- Wellmont Hawkins County Hospital (containing 40 beds) will have 169 more patients than normal needing hospitalization during the local pandemic wave

# *Revised* Needs Statement for Fall

Therefore, Hawkins county providers need to:

- Obtain necessary data from, and allow for networking among sentinel healthcare facilities and primary stakeholders
- Adapt and implement appropriate guidelines from the State Panflu plan as regards infection control, surge capacity planning and scarce resource allocation
- Direct all available and necessary human and material resources to *existing* inpatient and outpatient healthcare facilities to keep operations at optimal capacity, in the event of a healthcare emergency
- Address issues as they arise pertaining to alternative standards of care, alternate triage/care sites and a uniform region-wide healthcare plan

# *Revised* Project Goals

- Identify major health care providers (private, public, first responders, etc)
- Bring *providers* together to address the aforementioned *needs assessment*
  - to lower morbidity and mortality
  - preserve social function and minimize economic disruption





# Implementation

- Step 1: Met with the preformed LEPC to access interest/feasibility
  - Presented at the Sept 27<sup>th</sup> LEPC meeting, recommended a health care subcommittee to address Panflu
  - Community was supportive. Gary Murrell, the head of the LEPC charged our group with developing the subcommittee. We selected key providers and planned a meeting.

# Implementation

- Step 2: Planned/held the first meeting of the LEPC health care subcommittee
  - Invited key providers to meet on October 25. This was a quick organizational meeting with food provided.
    - The LEPC recommended a name change to Mass Care and Recovery Subcommittee (MCRS).
  - Prompted Committee Members to consider Panflu:
    - Overflow planning/Modeling
    - Communication contingencies
    - Ethical issues (i.e. access to limited vaccine, Alternative standards of care, etc.)





# Implementation

- **Step 3: Promoted sustainability:**
  - Held an additional meeting the 13th of November.
  - Future chair of the MCRC to be appointed by the LEPC chair at the Jan 8th meeting.
  - Self-supporting group will continue to report to the LEPC



- We met our goal for the semester. We
  - developed a committee of key health care providers
  - educated the committee members on key potential issues
  - established a formal mechanism for continuation
- The burden for continuation now lies within the county organizations.
- Apathy remains surrounding the pandemic flu issue on the part of local organizations
  - With the exception of the Health Department, Pan flu is still low on their critical issues list.



# Hopes for the Future

Hopefully Rogersville (and all communities) will

- Consider this “inevitable” flu as a high probability event with real risks
- Develop/fine tune panflu plans with real world understanding of the contingencies of pandemics
- Limit morbidity/mortality



# Special thanks to:

- Dr. Goodrow
- Dr. Velasco
- Ms. Jeanie Parrott
- Gary Murrell
- Town of Rogersville
- And those who participated in surveys and meetings.

