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# **Balancing Public Perception and Evidence**

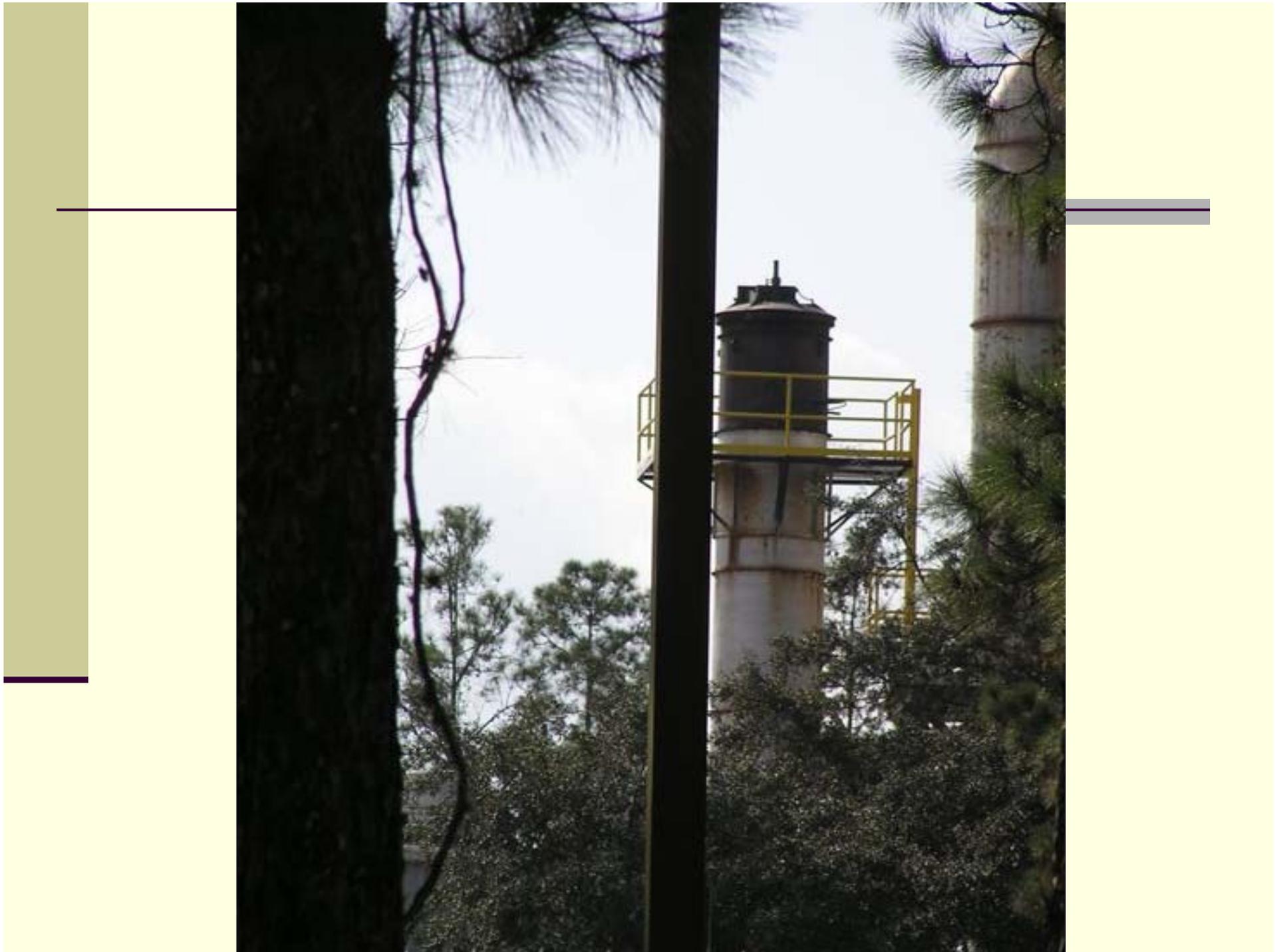
**Kevin Sherin, MD, MPH  
Orange County Health Department  
Director**















# Orange County Demographics

**Total Population 2008: 1,072,801**

<u>Race/Ethnicity:</u>	<u>%</u>
White-Non Hispanic	50.0
Black or African-American	18.9
Hispanic	24.3
Other	6.8

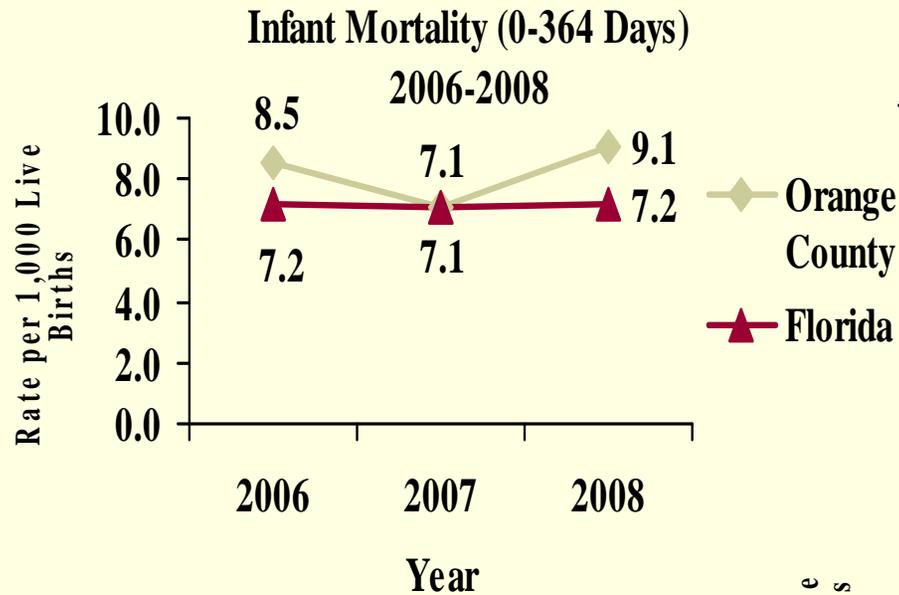
<u>Age :</u>	<u>%</u>
Under 5	7.5
18 Years and Over	74.9
65 Years and Over	9.6

<u>Economic Indicators:</u>	<u>%</u>
Individuals Below Poverty	12.1
Families Below Poverty	8.8
Unemployment	6.5

<u>Educational Attainment:</u>	<u>%</u>
Less than 9 <sup>th</sup> grade	5.3
9 <sup>th</sup> to 12 <sup>th</sup> , no diploma	8.0
High School Graduate or Higher	86.7
Bachelor's Degree or Higher	30.1

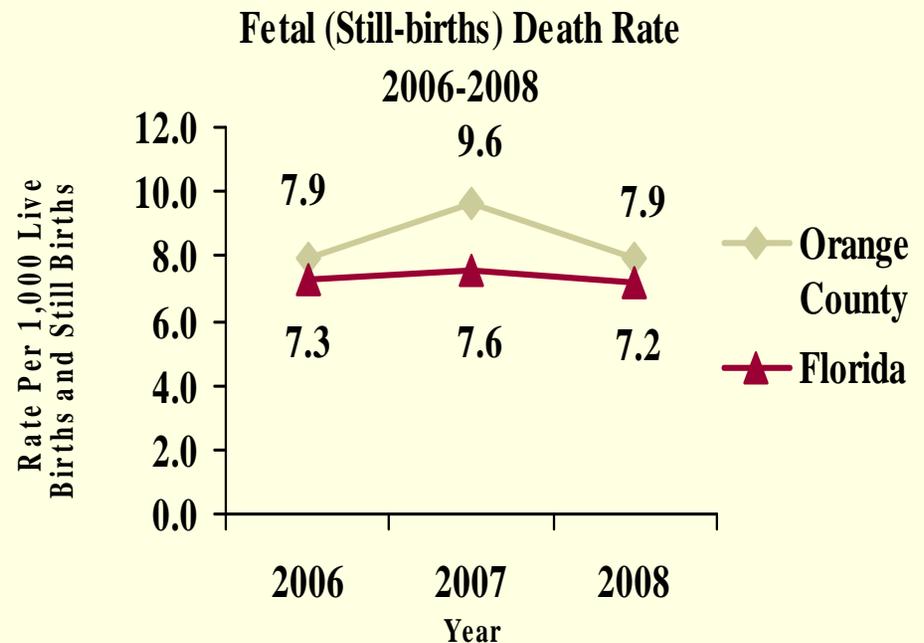
Source: U.S. Census Bureau, 2006-2008 American Community Survey

# Orange County Maternal Child Health Indicators Overview



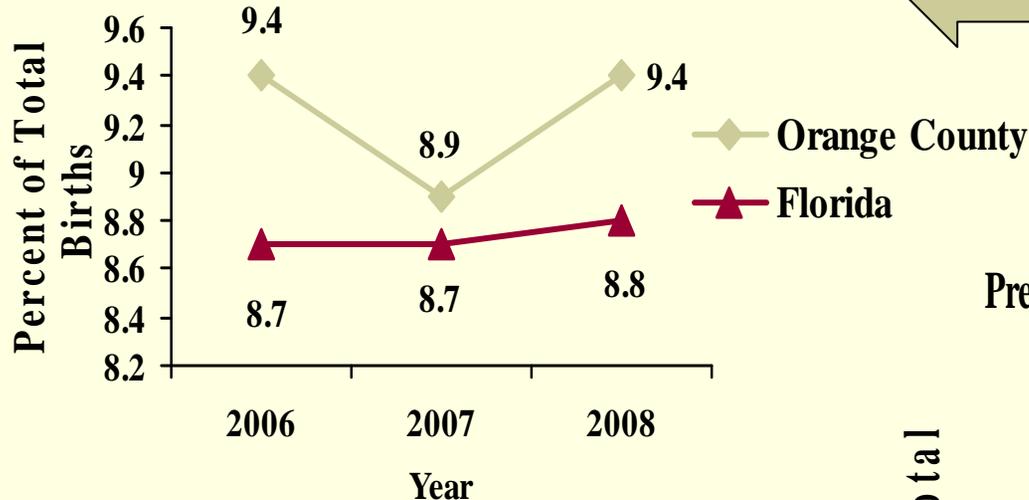
Orange County higher infant mortality rate than Florida, and slightly increasing in past 3 years.

Orange County higher fetal death rate than Florida, and has decreased in past 3 years.

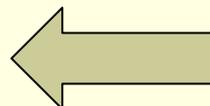


# Orange County Maternal Child Health Indicators Overview cont.

Low Birth Weight (Under 2500 Grams)  
2006-2008



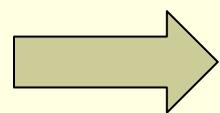
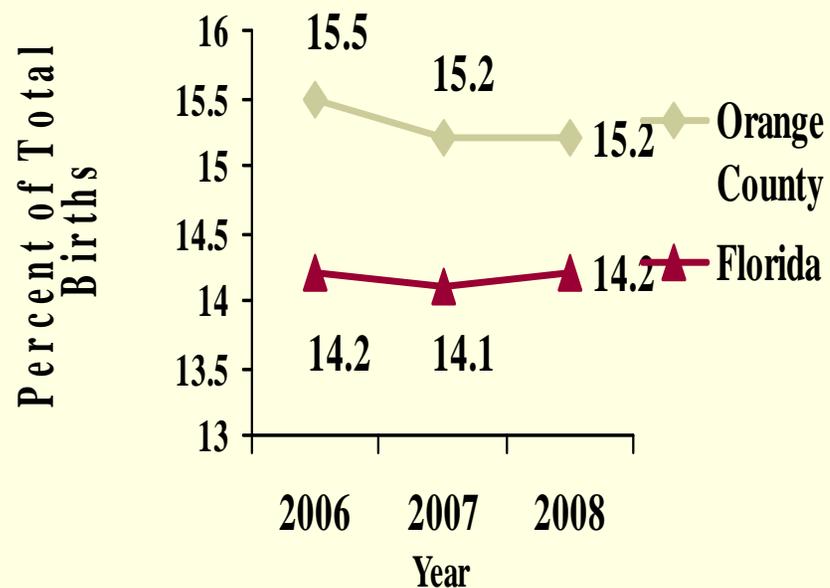
Orange County higher LBW % than Florida, and slightly increasing in past 3 years.



Orange County higher Preterm birth rate than Florida, and slightly decreasing in past 3 years.

Preterm Births (<37 Weeks Gestation)

2006-2008



# Prior Studies

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## **Keene Road Landfill-Lake Jewel Health Consultation.**

**Conducted by:** U.S. Department of Health and Human Services,  
*Agency for Toxic Substance Registry.*

**Purpose-**Evaluation of health threat posed by Keene Road landfill to the Lake Jewel Community.

Study conducted from January 2001-June 2006

### **Findings:**

- *Current* exposures are **no apparent public health hazard** for residents now hooked up to city water. All but three nearby residences are on city water; current exposures for these residents are an **indeterminate public health hazard** because of insufficient data for these wells.

# Prior Studies

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## **Pesticide Monitoring – Lake Apopka**

**Conducted by:** Florida Department of Agriculture Consumer Services and the St. Johns River Water Management District

**Purpose-** To determine long term effects of Organochlorine pesticide levels of the fish in Lake Apopka

Study conducted 2004 – 2008

### **Findings:**

- Initial analysis detected levels of Organochlorine levels in six species of fish prompting the Department of Health to **issue Fish Consumption Warnings**. Subsequent testing determined an annual decrease of pesticide levels in fish with only one fish remaining on the do not eat list, the Brown Bullhead Catfish.

# Additional Studies

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**Lake Apopka Farmworkers Environmental Health Report on  
Community Health Survey**

**Conducted by:** Farmworkers Association of Florida and Dr. Ron Habin

**Research Advancing the Management of C&D Debris in Florida**

**Conducted by:** University of Florida

**Rodent Population and Control Study**

**Conducted by:** Orange County Health Department

**Community Health Assessment**

**Conducted by:** Rollins College Winter Park Fl

In summary, this is a community that has been extensively studied and wants action to address real and perceived concerns.

# Apopka PACE EH Project

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## Project Summary

- A total of 276 surveys compiled. The surveys listed the 29 environmental health concerns the community of Apopka had generated during a community meeting.

## The five concerns the PACE-EH project will work on are:

- More medical and dental clinics,
- More medical specialty care,
- Physical activities and after school programs,
- More organized sports with low or no fees and
- The odor from the Lake Jewel dump.

# Overview of PACE-EH Community

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## Lake Jewell Community

- A. Located in South Apopka adjacent to landfill.
- B. Low Income predominately African American population.
- C. Closest point is 0.5 miles north of landfill.
- D. In 2000, approximately 2,642 people lived within one mile of the Keene Road landfill. Of the total population, 55% were black or African American, 40% were white, and 5% were Native American, Asian, and/or other ethnic groups (US Bureau of the Census, 2000).<sup>1</sup>

<sup>1</sup>Lake Jewel Health Consultation, U.S. Department of Health and Human Services, Agency for Toxic Substance and Disease Registry.

# Community Health Concerns

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- Lupus
- High Death Rate
- Heart Disease
- Heart Attack
- Hepatitis
- Pancreatic Cancer
- Leukemia
- Bronchitis
- Nosebleeds
- Colon Cancer
- Respiratory Illness
- Liver Cysts
- Diabetes
- Asthma

# Community Maternal Child Health Concerns

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- Infant Mortality
- Fetal Deaths (Stillbirths)
- Prematurity
- Low Birth Weight

# **MCH Data Analysis Observed vs. Expected Analysis Infant Mortality**

**Referent Area: Orange County, 2006-2008**

**OC Infant Mortality Death rate: 8.2**

**Infant Mortality (2006-2008)**

<b><u>Zip Code</u></b>	<b><u>Expected</u></b>	<b><u>Observed</u></b>	<b><u>Landfill</u></b>	<b><u>Super Fund/Act Sites</u></b>
<b>*32703</b>	<b>5.5</b>	<b>9.0</b>	<b>Yes</b>	<b>9 Sites</b>
<b>32805</b>	<b>3.6</b>	<b>15.9</b>	<b>No</b>	<b>39 Sites</b>
<b>32808</b>	<b>7.7</b>	<b>13.7</b>	<b>Inactive</b>	<b>17 Sites</b>

Observed higher rates of infant mortality in demographically similar zip codes as 32703, but with either no landfill or inactive landfills. Comparable zip codes have at least 2 times as many super fund or super acts sites as 32703 zip code.

# Risk Communication and Community Meetings to Date

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- OCHD met to address the health concerns of the Lake Jewel Community on January 14, 2009.
- Attendees included: Lake Jewel Community members, Operations Manager of Keene Rd. Landfill and Health Department.
- A presentation was given detailing actions to be taken by the Health Department, followed by a question and answer session.
- Apopka Farm Workers Association has also worked extensively with the Lake Jewel South Apopka Community.

# Community Message

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- Listen to the community's health concerns.
- Act in fair and objective manner toward all involved parties (i.e. Community and Landfill).
- The health department will continue to support the Environmental Health Department's effort in completing the PACE-EH Project in Apopka.
- Health Department will continue to work with the Apopka Farm Workers Association, and Waste Management to protect and promote the health and well-being of the citizens of Lake Jewel Community.



# Messages for Similar Public Health Officials

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- Remain objective in dealing with all parties.
- Irrespective of scientific finding still remain sympathetic to community concerns.
- Encourage community to continue to express their concerns to your entity builds trust which helps in how health department is viewed.

# Community Based Participatory Research Opportunities

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- Research opportunities for Maternal and Child Health issues.
- Environmental issues (i.e. Lake Apopka, and drinking wells)
- Other Health Conditions (i.e. Lupus, Cancer and Respiratory problems)