

MPH FIELD EXPERIENCE
AT
JACKSON COUNTY
HEALTH DEPARTMENT

PRANAV BHATT

Master of Public Health Program

Field Experience Report

November 1st 2012



Overview

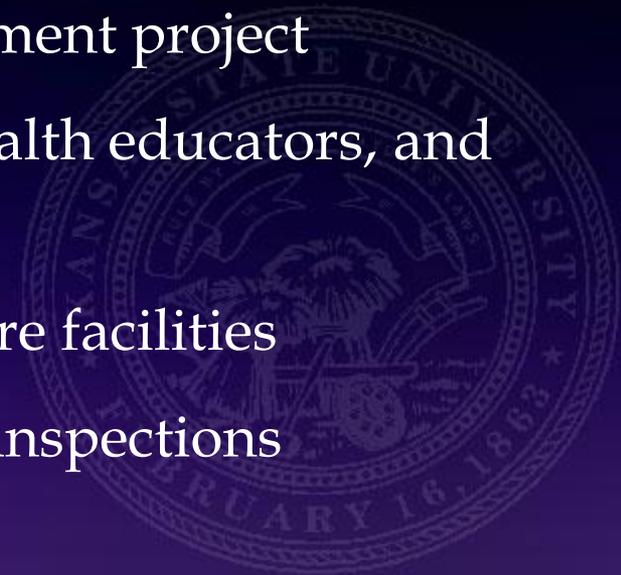
- Introduction
- Jackson County Health Department (JACOHD)
- Field Experience Activities
- Presentation at Doctor's offices
- Restaurant Inspections
- Discussion and Recommendations
- Acknowledgements
- References



Introduction

- **Master of Public Health Program**
 - Infectious Diseases and Zoonoses

- **Field Experience** (01/30/12 – 05/04/12)
 - Worked on community health assessment project
 - Collaborated with epidemiologist, health educators, and other staff in different activities
 - Visited Doctor's offices and urgent care facilities
 - Observed STD clinics and restaurant inspections



Jackson County Health Department, Missouri



- Est. in 1925, Located in Independence, Missouri
- Affiliated with Truman Medical Centers
- Director: Mr. James Kelly
- Epidemiologist: Mrs. Ellen Dorshow-Gordon



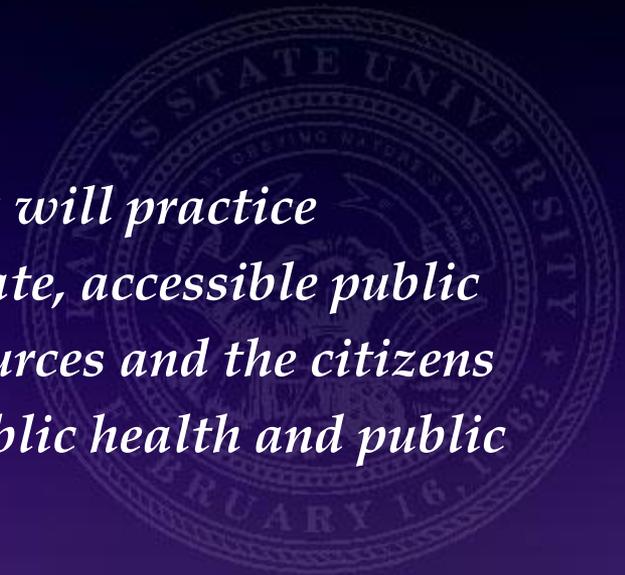
Jackson County Health Department, Missouri

➤ Mission Statement

“Jackson County Health Department provides public health services for disease prevention, health promotion and protection of the environment.”

➤ Vision Statement

“The population in Eastern Jackson County will practice preventative behaviors, there are appropriate, accessible public health services, adequate staffing and resources and the citizens are knowledgeable and proactive about public health and public health policy.”



Jackson County Health Department, Missouri

➤ Main Services

- Birth & Death certification

- Disease Prevention & Testing:

 - Epidemiology, Communicable Disease Surveillance

 - TB case management, and STDs clinic

- Health Education and Screening

- Smoking cessation program

- Immunization clinic

- Other services:

 - Traumatic Brain Injury, Emergency Preparedness

 - Maternal Child Health Program, Lead risk assessment

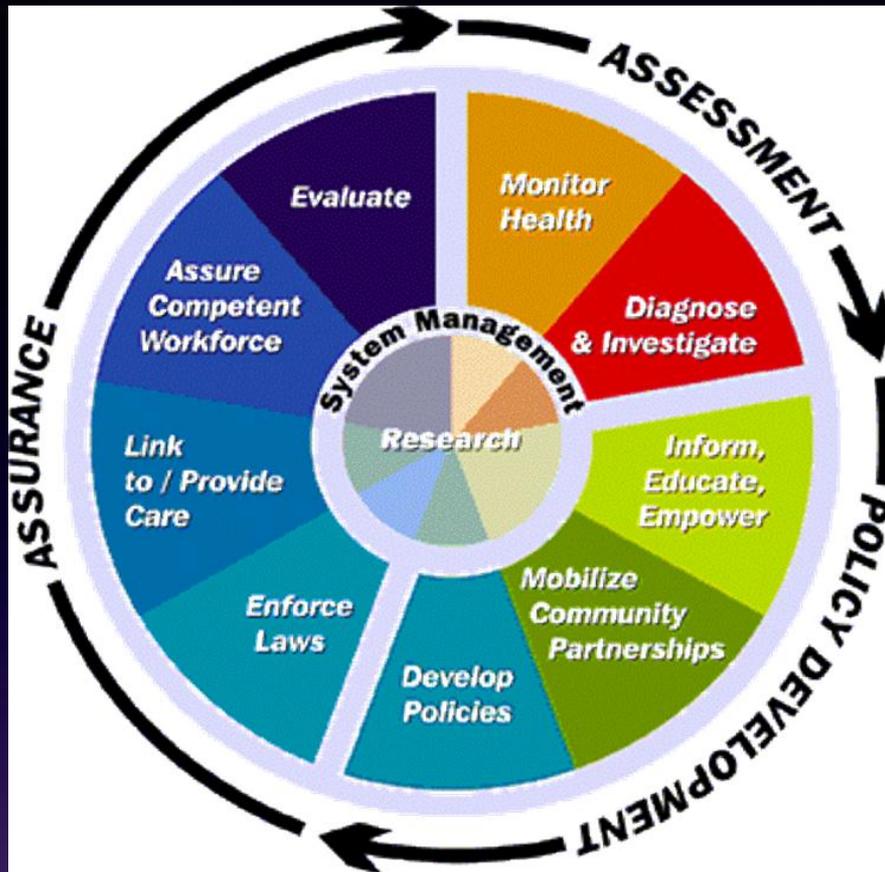


Field Experience

- Capstone – Community health assessment for Eastern Jackson County (EJC)
- JACOHD Health Survey
- Presentation at Doctor's offices
- Restaurant Inspections
- Meetings and Seminars



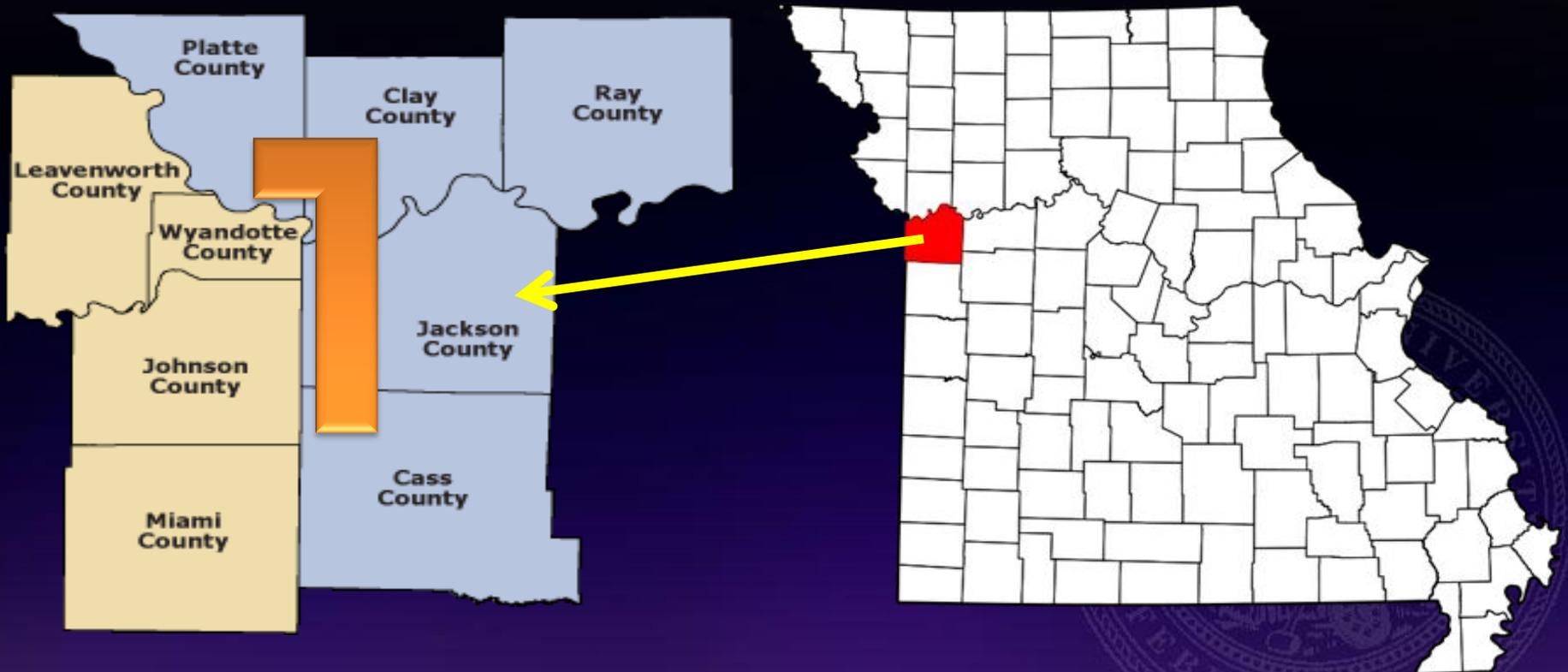
Community Health Assessment (CHA) Project



“Systematic collection, assembly, analysis, and dissemination of information about the health of the community”

Community Health Assessment (CHA) Project

Geographical location



(Geographical location of Jackson County, Missouri; L shape indicates distribution of Kansas City in four counties)

Community Health Assessment (CHA) Project

➤ CHA Health Indicators:

- Demographics
- Birth
- Leading causes of death
- Maternal and Child health
- Unintentional injuries
- Infectious and non-communicable diseases
- Social determinants of health



Community Health Assessment (CHA) Project

Leading Causes of Death Report

Eastern Jackson County

Community Health Assessment 2012



Purpose

- Trend of leading causes of death
- Comparison of mortality rates with the state
- Identify health priorities
- Plan of action and preventive strategies

Community Health Assessment (CHA) Project

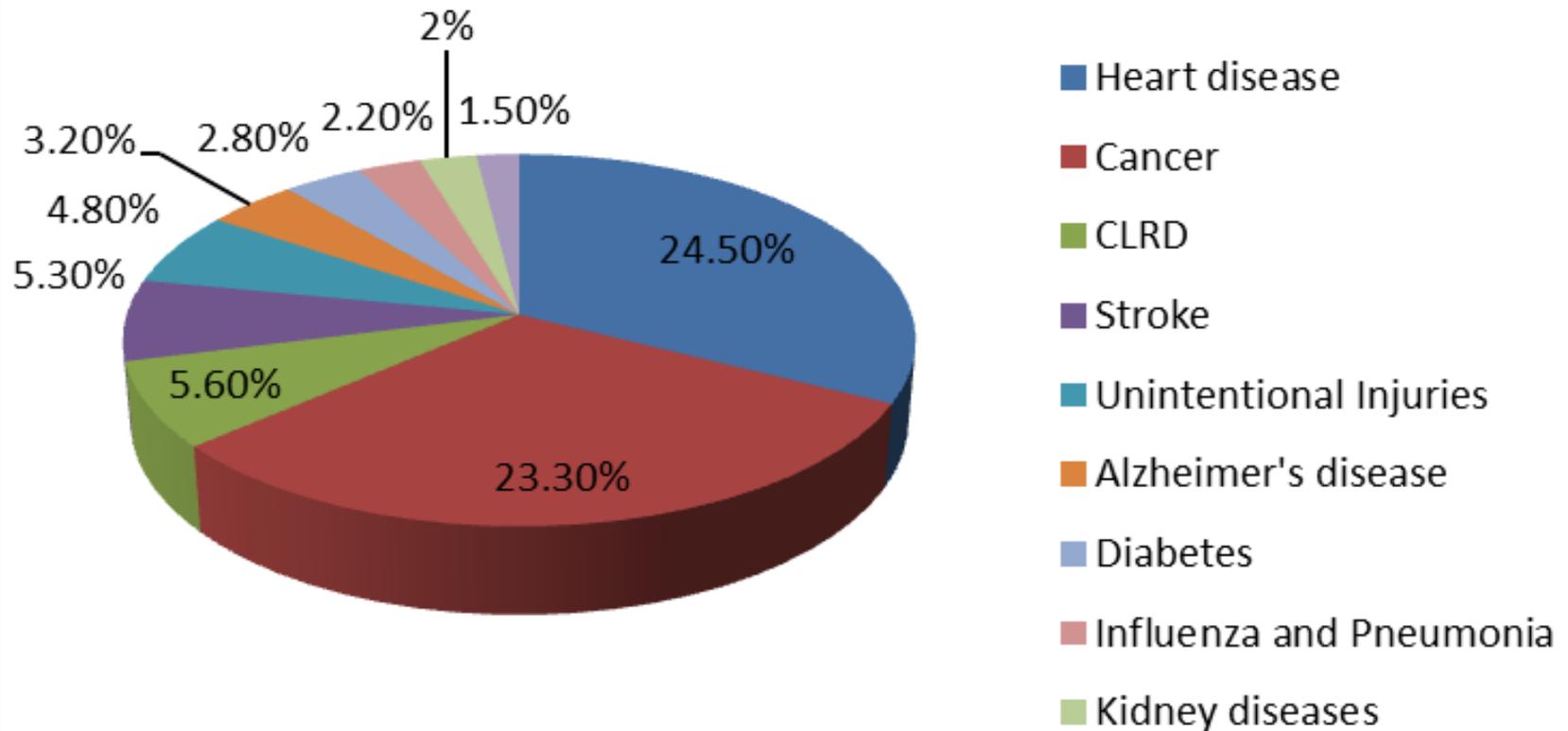
Mortality Statistics:

- **U.S.**
 - Number of deaths: 2,437,163
 - Death rate: 793.8 (per 100,000 population)
- **Missouri**
 - Number of deaths: 54,064
 - Death rate: 903.7
- **EJC**
 - Number of Deaths: 1,899
 - Death rate: 798.1



Leading Causes of Death

10 Leading causes of death in U.S. (2009)



(Source: CDC - Leading causes of death in U.S. 2009)

Community Health Assessment (CHA) Project

| Deaths: Residents of Selected Counties/Cities | | |
|--|------------------|--------------|
| Cause of Death: = All Causes | | |
| | Year 2009 | |
| County | Number | Rate |
| Jackson County | 5,903 | 880.0 |
| Eastern Jackson County | 1,899 | 798.1 |
| Independence | 1,266 | 1086.9 |
| Kansas City | 3,609 | 788.0 |
| Missouri | 54,064 | 903.7 |
| Rates are per 100,000 Crude Rate | | |

(Source: Missouri Department of Health & Senior Services; MICA)

Community Health Assessment (CHA) Project

Eastern Jackson County, City of Independence, Kansas City, Missouri

Deaths: All Causes

Jurisdiction

| Year | EJC | | Independence | | Kansas City | | Missouri | |
|--------------|--------|--------------|--------------|-------|-------------|-------|----------|--------------|
| | Number | Rate | Number | Rate | Number | Rate | Number | Rate |
| 2006 | 1,952 | 892.1 | 1,247 | 871.7 | 3,809 | 887.8 | 54,475 | 846.8 |
| 2007 | 1,763 | 794.3 | 1,302 | 901.7 | 3,721 | 857.8 | 53,937 | 823.8 |
| 2008 | 1,786 | 786.7 | 1,331 | 901.6 | 3,903 | 895.4 | 56,278 | 843.7 |
| 2009 | 1,899 | 824.3 | 1,266 | 855.8 | 3,609 | 822.1 | 54,064 | 800.4 |
| 2010 | 1,877 | 803.7 | 1,281 | 852.6 | 3,643 | 827.4 | 55,054 | 816.0 |
| Total | 9,277 | 819.9 | 6,427 | 876.6 | 18,685 | 858.2 | 273,808 | 825.8 |

Rates are per 100,000

Age adjustment uses 2000 standard population

(Source: Missouri Department of Health & Senior Services; MICA)

Community Health Assessment (CHA) Project

Top 5 Leading Causes of Death

| Cause of Death | U.S. | MO | EJC |
|------------------------------------|------|----|-----|
| | Rank | | |
| Heart Diseases | 1 | 1 | 1 |
| Cancer | 2 | 2 | 2 |
| Chronic Lower Respiratory Diseases | 3 | 4 | 4 |
| Cerebrovascular Diseases (Stroke) | 4 | 3 | 3 |
| Unintentional Injuries (Accidents) | 5 | 5 | 5 |

(Source: Profiles - Missouri Department of Health & Senior Services; CDC - U.S. mortality statistics)

Community Health Assessment (CHA) Project

10 leading causes of death in EJC

1. Heart diseases
2. All Cancers (Malignant Neoplasms, lung, breast)
3. Cerebrovascular diseases (Stroke)
4. Chronic Lower Respiratory Diseases (CLRD)
5. Unintentional injuries (Accidents)
6. Alzheimer's disease
7. Pneumonia and Influenza
8. Diabetes Mellitus
9. Kidney disease
10. Alcohol – Drug induced



Community Health Assessment (CHA) Project

Deaths due to Heart Diseases

| Deaths: Eastern Jackson County | | |
|--|--------|-------|
| Year 2006 - 2010 | | |
| Cause of Death: Heart Diseases | | |
| Sex | Number | Rate |
| Male | 1,027 | 235.8 |
| Female | 1,095 | 154.0 |
| Both Sexes | 2,122 | 187.8 |
| Rates are per 100,000 | | |
| Age adjustment uses 2000 standard population | | |

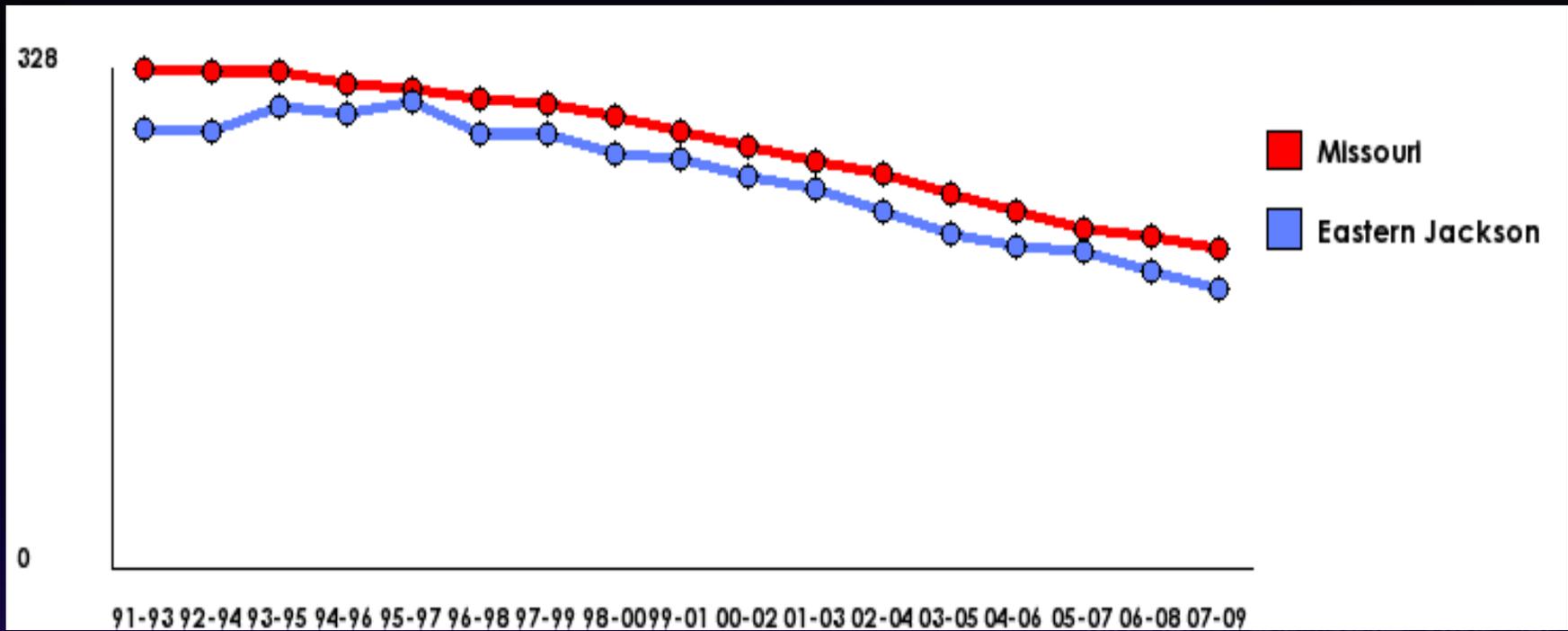
| Deaths: Eastern Jackson County | | | |
|--------------------------------|--------|-----------------------------|------------------|
| Year 2006 - 2010 | | | |
| Cause of Death: Heart disease | | | |
| Race | | | |
| | White | Black/ African -American | <u>All Races</u> |
| Sex | Number | Number | Number |
| Male | 945 | 71 | 1,027 |
| Female | 1,029 | 61 | 1,095 |
| Both Sexes | 1,974 | 132 | 2,122 |

(Source: Missouri Department of Health & Senior Services; MICA)

Death Profile for EJC

Mortality Rates: Heart Disease

Three-Year Moving Average Rates



Trend Analysis:

- Eastern Jackson rate trend shows a statistically significant decrease.
- Missouri rate trend shows a statistically significant decrease.

(Source: Death Profiles - Missouri Department of Health & Senior Services)

Community Health Assessment (CHA) Project

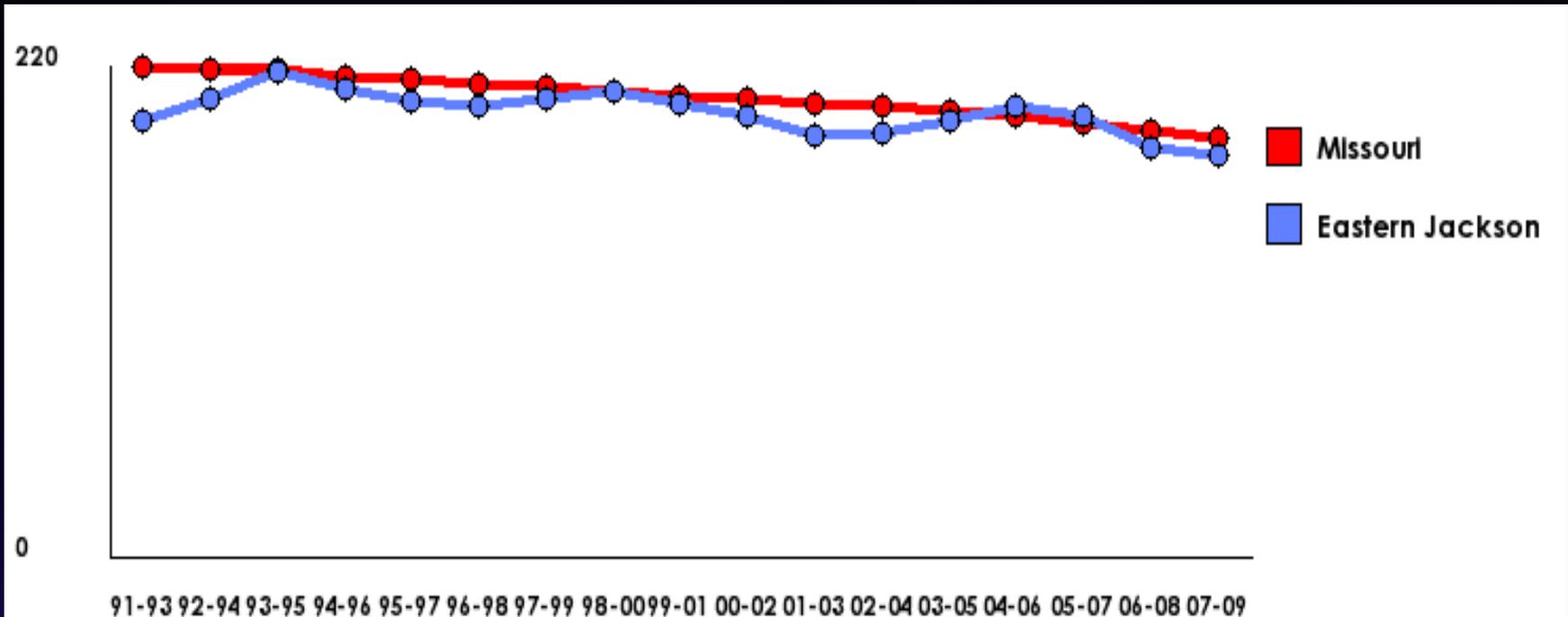
Deaths due to Cancer

- Major causes of cancer:
 - Malignant neoplasms
 - Lung cancer
 - Breast cancer

- Death rate: EJC < Missouri
 - Male > Female
 - White > African-American



Death Profile for Eastern Jackson Mortality Rates: All Cancers Three-Year Moving Average Rates



Trend Analysis:

- Eastern Jackson rate does not show a statistically significant trend .
- Missouri rate trend shows a statistically significant decrease.

(Source: Death Profiles - Missouri Department of Health & Senior Services)

Community Health Assessment (CHA) Project

Deaths due to CLRD

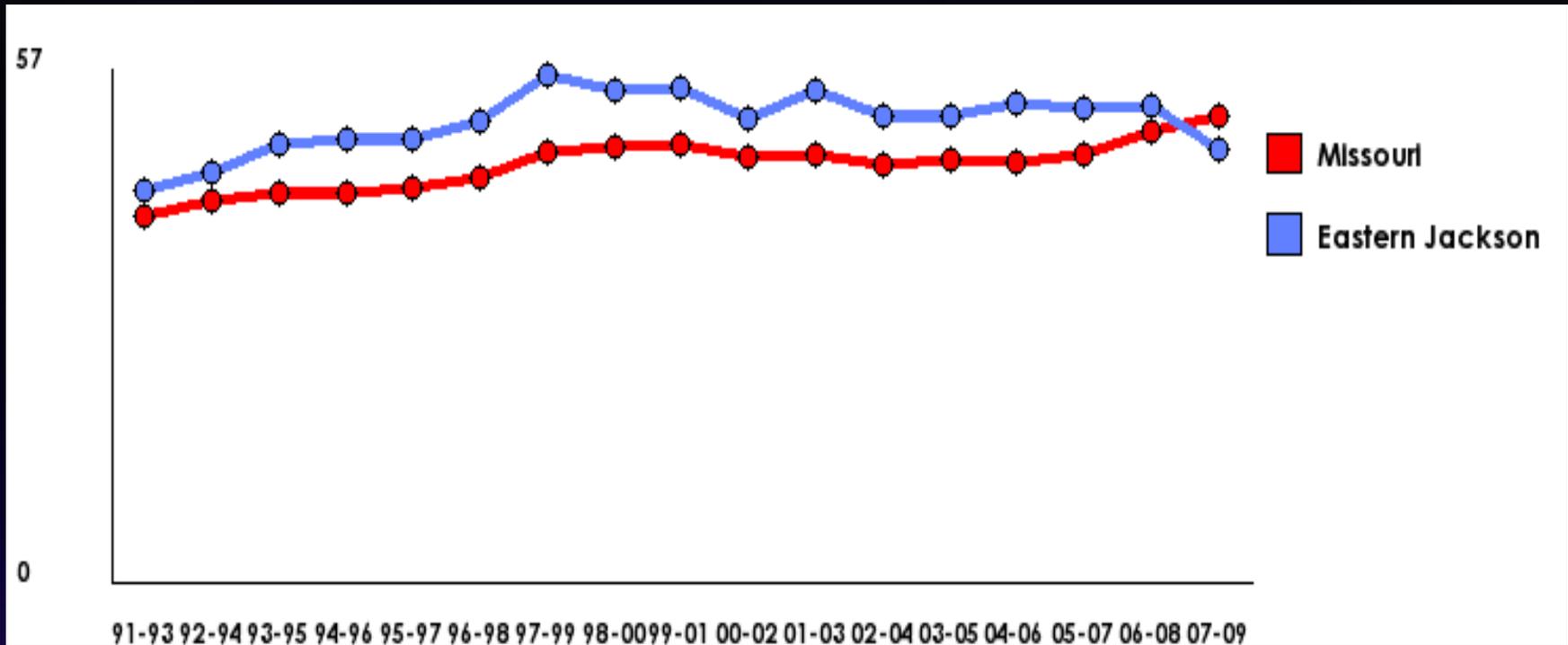
- Major causes:
 - Bronchitis, emphysema, asthma, bronchiectasis
 - Chronic airway obstruction

- Smoking attributable (estimated)

- Death rate: EJC > Missouri
Male > Female
White >> African-American



Death Profile for EJC Mortality Rates: CLRD Three-Year Moving Average Rates



Trend Analysis:

- Eastern Jackson rate does not show a statistically significant trend.
- Missouri rate trend shows a statistically significant increase.

(Source: Death Profiles - Missouri Department of Health & Senior Services)

Community Health Assessment (CHA) Project

Deaths due to Cerebrovascular disease (Stroke)

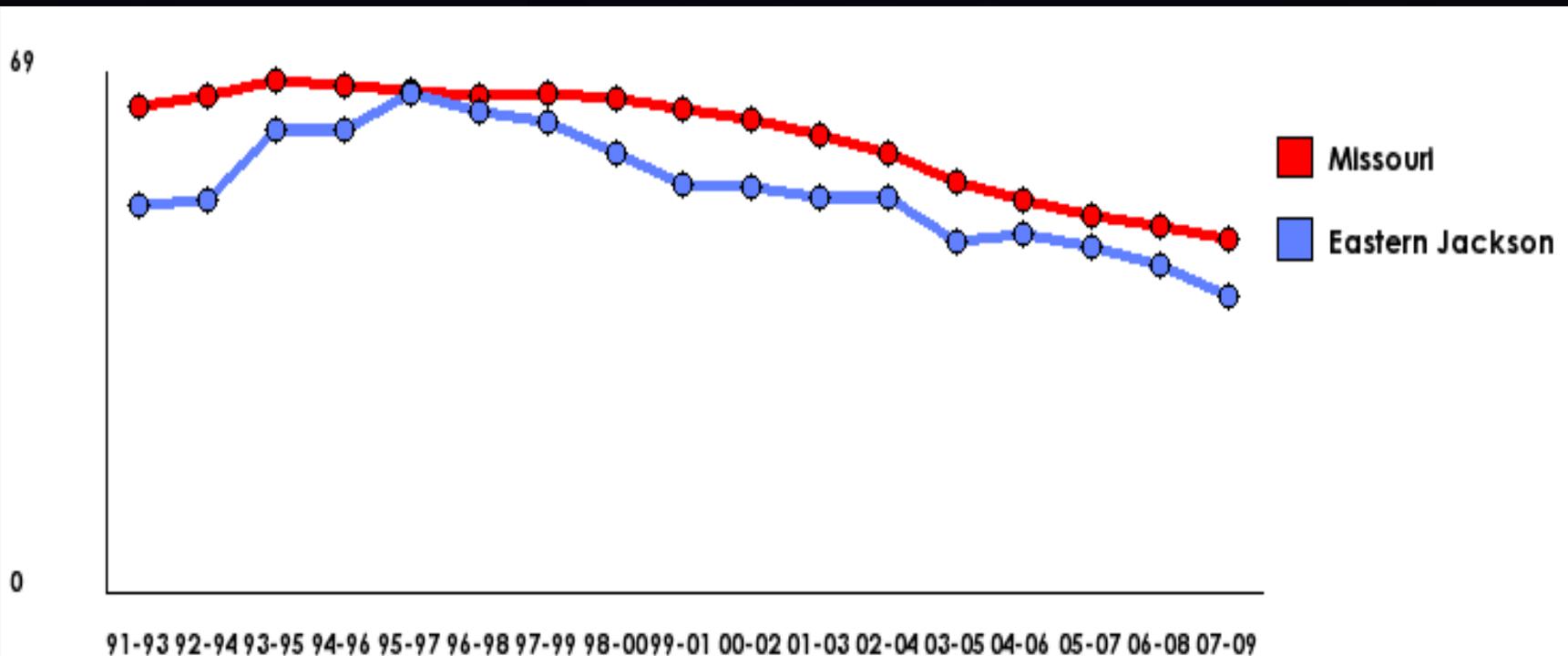
- Major causes:
 - Bleeding or blockage of arteries in brain
 - Complications of stroke
- Death rate: EJC < Missouri
 - Male < Female
 - White > African-American



Death Profile for EJC

Mortality Rates: Cerebrovascular diseases

Three-Year Moving Average Rates



Trend Analysis:

- Eastern Jackson rate trend shows a statistically significant decrease.
- Missouri rate trend shows a statistically significant decrease.

(Source: Death Profiles - Missouri Department of Health & Senior Services)

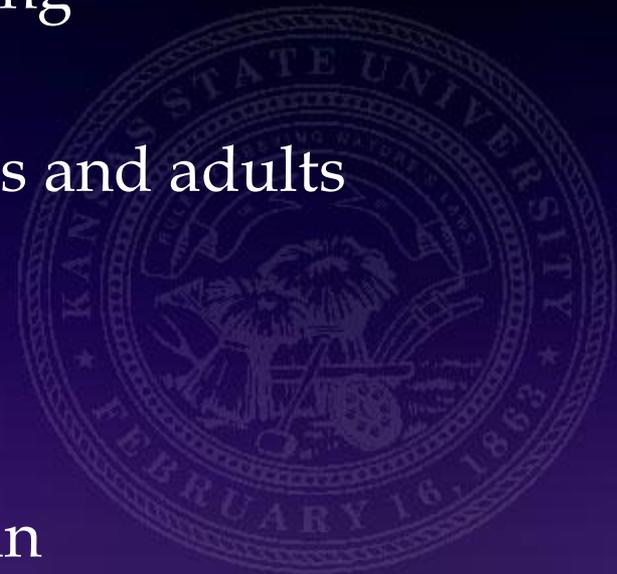
Community Health Assessment (CHA) Project

Deaths due to Unintentional Injuries

- Major causes:
 - Motor vehicle accidents (around 50%)
 - Fall, drug overdose, fire, and drowning

- 1st leading cause of death in teenagers and adults

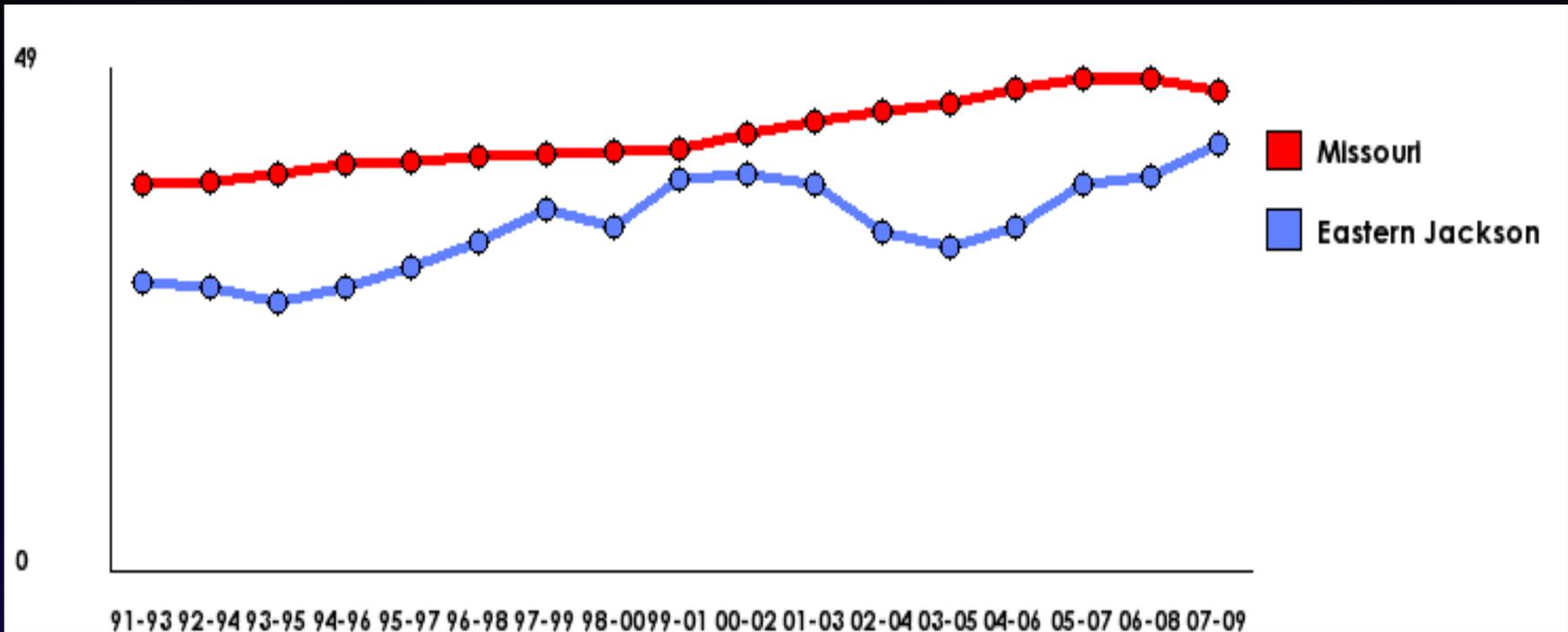
- Death rate: EJC < Missouri
 - Male > Female
 - White > African-American



Death Profile for EJC

Mortality Rates: Unintentional Injuries

Three-Year Moving Average Rates



Trend Analysis:

Eastern Jackson rate trend shows a statistically significant increase.

- Missouri rate trend shows a statistically significant increase.

(Source: Death Profiles - Missouri Department of Health & Senior Services)

Community Health Assessment (CHA) Project

Top 5 Health Priorities for EJC

1. **Diabetes**
2. **Alcohol and substance abuse**
3. **Chronic obstructive pulmonary disease (COPD)**
4. **Lung cancer**
5. **Heart diseases**

The criteria used for prioritization are Amenability to change, Death Trend Statistically significance, Hospital Days of care, Numbers of deaths under 65, Racial Disparity for ER visits, Community Support, Disability Burden, Number of deaths, Number of Hospitalization and ER visits and Racial Disparity for deaths.

Health Assessment Survey Tool

- CHA team collects local data to discover the community's viewpoint and concerns

Purpose

- To monitor health status and to identify community health problems
- Access to cost effective health care
- Collected data is important in assessing the current status of the community health *according to the people*
- Inform, Educate, and Empower the community about health issues





Jackson County Health Department Community Health Survey 2012

This community survey is part of a larger study to help guide health programs in Eastern Jackson County over the next five years. Results will be made available to the public. Filling out the survey should only take **10-15 minutes**, and your responses are completely anonymous (secret). Your opinion is important!

Please return this survey in the enclosed envelope by _____ For questions, please call: 816.404-6415

- What is your zip code?

| | | | | | | |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <input type="checkbox"/> 64013 | <input type="checkbox"/> 64014 | <input type="checkbox"/> 64015 | <input type="checkbox"/> 64016 | <input type="checkbox"/> 64029 | <input type="checkbox"/> 64030 | <input type="checkbox"/> 64034 |
| <input type="checkbox"/> 64054 | <input type="checkbox"/> 64030 | <input type="checkbox"/> 64063 | <input type="checkbox"/> 64064 | <input type="checkbox"/> 64066 | <input type="checkbox"/> 64070 | <input type="checkbox"/> 64075 |
| <input type="checkbox"/> 64081 | <input type="checkbox"/> 64082 | <input type="checkbox"/> 64086 | <input type="checkbox"/> 64088 | <input type="checkbox"/> 64133 | <input type="checkbox"/> 64138 | <input type="checkbox"/> |

 Other _____
- What is your sex? Male Female
- What is your year of birth? _____ and age in years _____
- How do you describe yourself? Please check all that apply.

| | | |
|---|---|--|
| <input type="checkbox"/> White | <input type="checkbox"/> African American | <input type="checkbox"/> Native Hawaiian or Other Pacific Islander |
| <input type="checkbox"/> Hispanic or Latino | <input type="checkbox"/> Asian | <input type="checkbox"/> American Indian or Alaskan Native |
| <input type="checkbox"/> 2 or more (please specify) _____ | | |
- What language do you usually speak at home? English Spanish Other (please specify) _____
- During the past 12 months, what was the total combined income of all members of your household before taxes?

| | | | | |
|--|--|--|---|--------------------------------------|
| <input type="checkbox"/> <\$10,000 | <input type="checkbox"/> \$10,000-\$14,999 | <input type="checkbox"/> \$15,000-\$24,999 | <input type="checkbox"/> \$25,000-\$34,999 | |
| <input type="checkbox"/> \$35,000-\$49,999 | <input type="checkbox"/> \$50,000-\$64,999 | <input type="checkbox"/> \$65,000-\$74,999 | <input type="checkbox"/> \$75,000- \$99,999 | <input type="checkbox"/> >=\$100,000 |
- What is the highest educational level you have completed?

| | | | |
|---|--|---------------------------------------|--|
| <input type="checkbox"/> Less than 12 years | <input type="checkbox"/> High school/GED | <input type="checkbox"/> Some college | <input type="checkbox"/> Bachelor's degree |
| <input type="checkbox"/> Masters or higher | | | |

About Your Health

- How would you rate your overall health?

| | | | |
|-------------------------------|-------------------------------|-------------------------------|------------------------------------|
| <input type="checkbox"/> Poor | <input type="checkbox"/> Fair | <input type="checkbox"/> Good | <input type="checkbox"/> Excellent |
|-------------------------------|-------------------------------|-------------------------------|------------------------------------|
- Where do you get your health information (information on local health care resources, educational information, etc.)? Please check all that apply.

| | | | | |
|---|---|---|---|---|
| <input type="checkbox"/> Billboards | <input type="checkbox"/> Bulletin boards | <input type="checkbox"/> Churches | <input type="checkbox"/> Friends/Family | <input type="checkbox"/> Grocery stores |
| <input type="checkbox"/> Health Dept. | <input type="checkbox"/> Healthcare providers | <input type="checkbox"/> Local newspapers | | <input type="checkbox"/> Internet (WebMD, CDC, etc.) |
| <input type="checkbox"/> Newsletters | <input type="checkbox"/> Posters | <input type="checkbox"/> Radio | <input type="checkbox"/> Social Media (Facebook, Twitter) | |
| <input type="checkbox"/> Social Services Organization | | <input type="checkbox"/> TV news | <input type="checkbox"/> WIC | |
| <input type="checkbox"/> Other (please specify) _____ | | | | |
- Where do you/your household members go for normal/routine care? Please check all that apply.

| | | |
|--|--|---|
| <input type="checkbox"/> Chiropractor | <input type="checkbox"/> Doctor's office | <input type="checkbox"/> Emergency room |
| <input type="checkbox"/> Health department | <input type="checkbox"/> Pharmacy (e.g. Take Care Clinic, Minute Clinic) | |





Public Health

- Planned Parenthood Specialty doctor (e.g. OB/GN) Urgent care
- Other (please specify) _____

11. Is anyone in your household currently having trouble getting medical care?

- Yes No

If yes, what issues are they having getting medical care? Please check all that apply.

- Cost of medical care Cost of prescription drugs Deductible too high
 Fear of deportation Not enough insurance coverage Not enough information about available medical resources
 No insurance coverage Language or cultural differences
 No access to transportation
 Other (please specify) _____

12. What type of healthcare coverage do people in your household use to pay for MOST medical care?

- Employee plan Medicaid Medicare
 Military Out of pocket (self-pay) Private insurance

13. Who in your household has health and/or dental insurance? Please check all that apply.

| | Health Insurance | Dental Insurance | No Insurance | Not Applicable |
|----------------|--------------------------|--------------------------|--------------------------|--------------------------|
| You | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Spouse/Partner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Children | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Parent(s) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Roommate(s) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

14. Have you visited a doctor or other healthcare provider in the last year? Yes No

15. Please check all of the following that you have done in the last year:

- Blood pressure check Blood sugar test Cholesterol screen
 Colonoscopy examination
 Dental visit Eye Exam Mammogram Pap smear
 Physical exam Prostate cancer screening Skin cancer screening

16. Did you get a flu (influenza) shot in the last year?

- Yes No

If yes, where did you get it?

- Pharmacy (CVS, Walgreens, etc.) Jackson County Health Department
 Doctor's office Other (please specify) _____

17. Are the children in your household current on their recommended vaccines and immunizations?

- Yes No Not Applicable

If no, why not? Please check all that apply.

- Cost Don't know where to go Hours do not meet my needs
 Medical reasons No insurance No transportation
 Religious reasons





- Need more education from your healthcare provider
 Vaccine unsafe (please specify) _____

18. Which of the following vaccines have adults in your household had within the last 24 months?

Please check all that apply.

- Hepatitis A Hepatitis B Whooping cough/Diphtheria/Tetanus Pneumonia Shingles

Nutrition

19. How many times in a day do you eat meals?

- None or 0 1-2 3-4 5-6 7 or more

20. How many times in a day do you snack?

- None or 0 1-2 3-4 5-6 7 or more

21. How many times a week do you eat food from a restaurant; sit down, take-out/carry out or fast food?

- None or 0 1-2 3-4 5-6 7 or more

22. How many times a week do you eat food you or your family makes with 3 or more ingredients?

- None or 0 1-2 3-4 5-6 7 or more

23. How many servings of fruits do you eat in a day? (1 serving=1cup)

- None or 0 1-2 3-4 5-6 7 or more

24. Are your fruit servings usually (most to least with 1 as used most, 2 as used next and 3 as used the least)

Fresh _____ Frozen _____ Canned _____

25. How many servings of vegetables do you eat in a day? (1 serving=1cup)

- None or 0 1-2 3-4 5-6 7 or more

26. Are your vegetable servings usually (most to least with 1 as used most, 2 as used next and 3 as used the least)

Fresh _____ Frozen _____ Canned _____

27. Where do you get your fresh fruits and vegetables? Please check all that apply.

- Convenience store Ethnic store Farmer's market
 Food pantry Grocery store Community garden
 I do not eat fresh fruits and vegetables
 I cannot eat fresh fruits and vegetables Other (please specify) _____

Physical Activity

28.

| How many hours a week do you spend doing... | I am not able to exercise | 0 or None | 1-2 | 3-4 | 5-6 | 7 or more |
|---|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Light physical activity (e.g., walking) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Moderate physical activity (e.g., jogging) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| High intensity physical activity? (e.g., | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |





running)

29.

| Where do you spend your time exercising? Please check all that apply | Home | Private Gym | Work Facility | Community Center | Local Parks & Trails | Local Sidewalks | Other |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Walking | <input type="checkbox"/> |
| Running | <input type="checkbox"/> |
| Biking | <input type="checkbox"/> |
| Swimming | <input type="checkbox"/> |
| Free Weights | <input type="checkbox"/> |
| Weight machines | <input type="checkbox"/> |
| Structured Classes | <input type="checkbox"/> |
| Group/team sports | <input type="checkbox"/> |
| Gaming Systems (e.g. exercise DVD, Wii) | <input type="checkbox"/> |

My Community

30. Do you feel it is safe to walk in your neighborhood?

Yes No

If no, why not? Please check all that apply. Fear of crime Loose dogs/animals

No sidewalks

Sidewalks in bad shape Traffic Other (please specify) _____

31.

| My neighborhood has enough... | Very Satisfied | Satisfied | Dissatisfied | Very Dissatisfied |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| Access to fresh fruits and vegetables | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sidewalks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Trails (for walking or biking) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Bike lanes on roads | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Parks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Emergency points in parks/on trails | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Food inspection and safety programs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Neighborhood or school playgrounds | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Recreational programs ... for children | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ... for teens | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ... for adults | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ... for seniors(age 65+) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Protection from secondhand smoke outdoors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Public transportation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |





| My neighborhood has enough... | Very Satisfied | Satisfied | Dissatisfied | Very Dissatisfied |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| Health education for children in schools | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Childcare facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Services for children with special needs | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Disaster response plans (e.g. to natural disasters, disease outbreaks) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Tobacco Use

32. How often are you exposed to secondhand smoke?
 Daily Weekly Monthly Less than monthly Never
33. Do you currently smoke cigarettes on a daily basis, less than daily, or not at all? (Please check one)
 Daily Less than daily No
- If you do not smoke or use smokeless tobacco products please skip questions 34-38.
34. On a normal day, how many cigarettes do you currently smoke? (Please check one)
 0 1-5 ½ Pack 1 Pack 2 Packs 3+ Packs
35. During the past 12 months, have you tried to stop smoking cigarettes?
 Yes: No
 Number of tries (Please check one)
 0 1-3 4-6 6-9 10 or more
- If yes, did you use anything to help? Please check all that apply.
 Counseling Electric cigarette Medication (Zyban, Chantix, etc.)
 Nicotine replacement (gum, inhaler, skin patch, nose spray, etc.)
 Other (please specify) _____
36. In the past year, have you used smokeless tobacco products (such as snuff, chewing tobacco, snus, orbs, etc.) on a daily basis, less than daily, or not at all?
 Daily Less than daily Not at all
37. Do you currently use smokeless tobacco products (such as snuff, chewing tobacco, snus, orbs, etc.) on a daily basis, less than daily, or not at all?
 Daily Less than daily Not at all
38. Would you commit to using a program to help quit smoking offered by the health department? Yes
 No

Thank you so much for completing the survey!



Health Assessment Survey Tool

Recommendation

- **Add a section on Alcohol use (CAGE evaluation)**
- **Alcohol and Substance abuse 2nd on the list of EJC health priorities**
- **Need for initiating a new program**



Presentation at Doctor's Offices

Objective

- To encourage physicians, public health nurses, and laboratories to report Notifiable Diseases

Educational Seminar:

- Epidemiological concepts
- Infection control
- Surveillance system



Presentation for JACOHD



Presentation

JACOHD

COMMUNICABLE DISEASE REPORTING OVERVIEW

JACKSON COUNTY HEALTH
DEPARTMENT



Jackson County Health Department

Presented by

Ellen Dorshow-Gordon, MPH

Dr. Pranav Bhatt, MBBS, (MPH Student)



CORE PUBLIC HEALTH FUNCTIONS

➤ ASSESSMENT

- Assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities

➤ PUBLIC POLICY

- Formulating public policies, in collaboration with community and government leaders, designed to solve identified local and national health problems and priorities

➤ ASSURANCE

- Assuring that all populations have access to appropriate and cost effective care, including health promotion and disease prevention services, and evaluation of the effectiveness of that care.

EPIDEMIOLOGY – DERIVED FROM GREEK



EPI

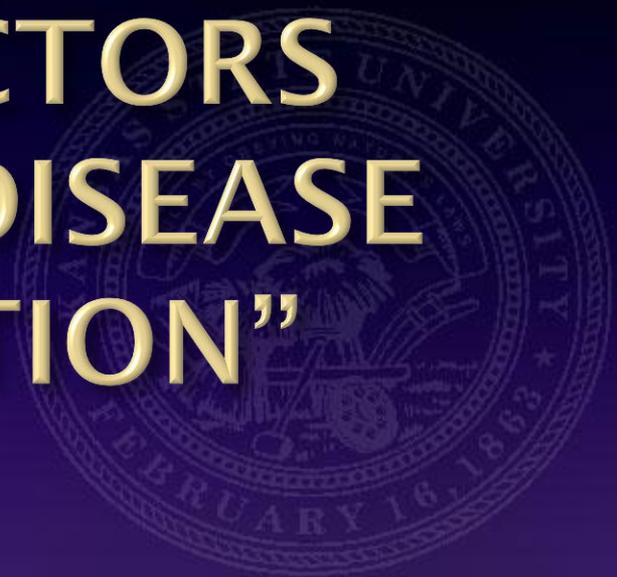
DEMOS

LOGOS

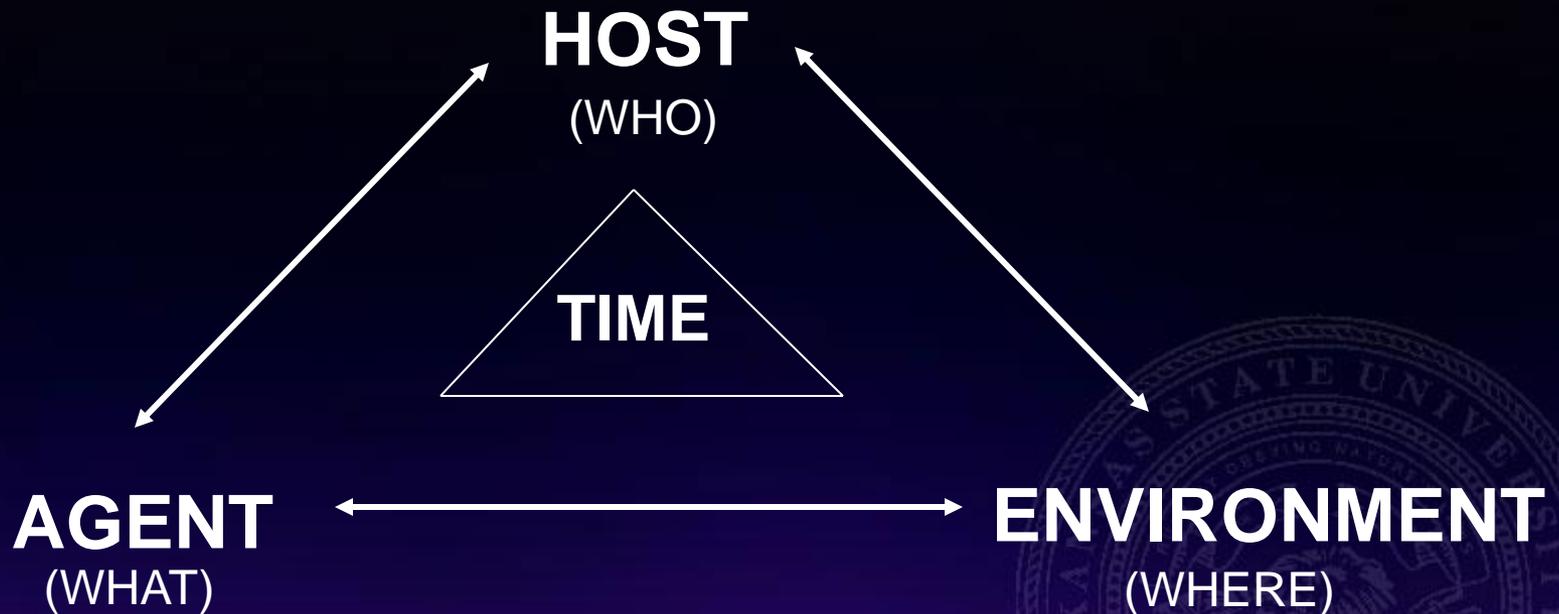
On or upon
Population/People
Study of



**“EPIDEMIOLOGY IS THE
STUDY OF FACTORS
DETERMINING DISEASE
IN A POPULATION”**



EPIDEMIOLOGIC MODEL

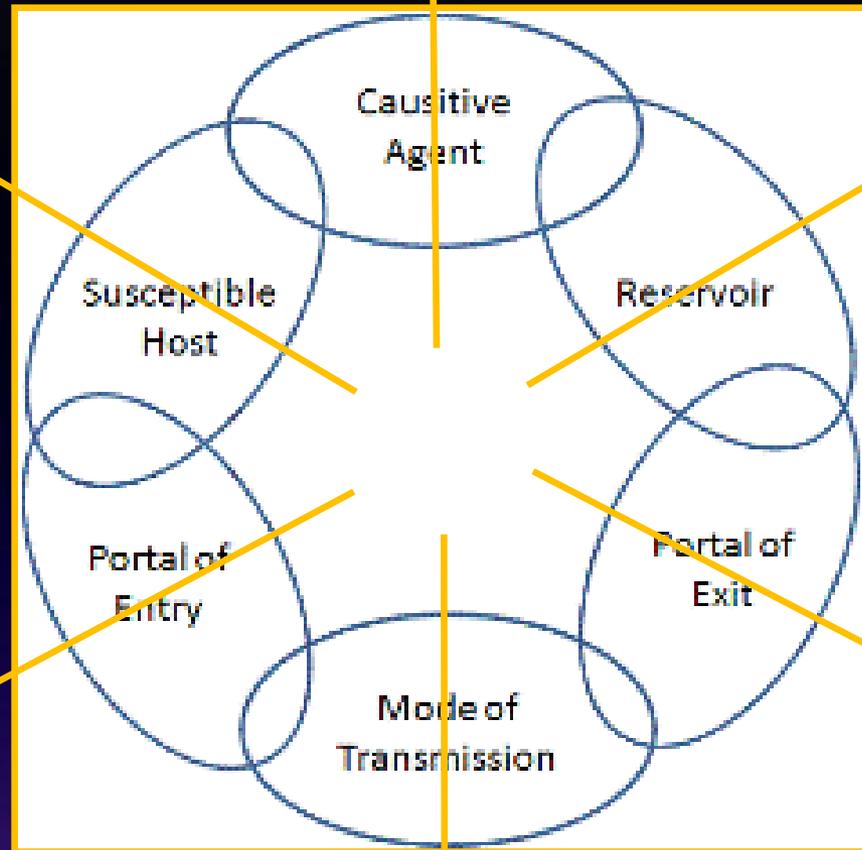


TIME - Incubation period of infectious disease, duration of illness

CHAIN OF INFECTION

Break the Chain

Early Diagnosis
Prompt Treatment



Environmental Sanitation
Disinfection/Sterilization

Proper Waste Disposal
Control on secretions
and Excretions

Hospitals
Proper Airflow, Disinfection

Isolation Precautions
Food Handling

Aseptic Precautions
Wound Care
Hand Hygiene
Catheter Care

Preventive measures
Prophylaxis

ROLE OF EPIDEMIOLOGIST AT JACOHD

- Oversee **Disease Control and Epidemiology**
- Coordinate with Nurse Manager and CD Nurses
- **Analyze, and interpret data** (CD, chronic disease, etc.)
- **Lead outbreak investigations**
- Maintain disease **surveillance systems** (ESSENCE, X-Sentinel, Internal CD Surveillance)
- Collaborate with public health and community partners
- Develop, or assist with the development of, **emergency response plans**
- Write and revise policies and procedures
- Provide **consultation** to staff and community

APPLIED EPIDEMIOLOGY

SOME EPIDEMIOLOGIC DISCIPLINES

- Chronic Diseases
- Communicable Diseases
- Accidents and Injuries
- Environment
- Occupational Health
- Social & Behavioral Health
- Health Planning



10

APPROACHES

- **Observational**
 - Descriptive
 - Person
 - Place
 - Time
 - Analytic - risk factors and trends
- **Experimental studies**
 - Clinical trials
 - Control programs



11

PURPOSE OF COMMUNICABLE DISEASE SURVEILLANCE

- Identify potential outbreaks or public health threats
- Manage the situation
- Minimize exposure of clients
- Define internal response team
- Define responsibilities of team members & respective services and units



SURVEILLANCE CYCLE

Public health surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of health data to help guide public health decision making and action



Diseases and Conditions Reportable In Missouri (19 CSR 20-20.020)

Numbers in parenthesis represent ICD-9 and ICD-10 Codes

Report Diseases and Conditions to your local health agency or to:
Missouri Department of Health and Senior Services during business hours 573-751-6113,
after hours and on weekends 800-392-0272 or by fax 573-526-0235

1. Immediately reportable diseases or findings shall be reported to the local health authority or to the Department of Health and Senior Services immediately upon knowledge or suspicion by telephone, facsimile or other rapid communication. Immediately reportable diseases or findings are—

(A) Selected high priority diseases, findings or agents that occur naturally, form accidental exposure, or as the result of a bioterrorism event:

- Anthrax (022, A22)
- Botulism (005.1, A05.1)
- Plague (020, A20)
- Rabies (Human) (071, A82)
- Ricin Toxin (988, T62)
- Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV) Disease (480.3, J12.8)
- Smallpox (variola) (050, B03)
- Tularemia (pneumonic) (021.2, A21.2)
- Viral hemorrhagic fevers (filoviruses (e.g., Ebola, Marburg) and arenaviruses (e.g., Lassa, Machupo)) (078.7, 078.89, A96, A98, A99)

(B) Instances, clusters, or outbreaks of unusual diseases or manifestations of illness and clusters of unexplained deaths which appear to be a result of a terrorist act or the intentional or deliberate release of biological, chemical, radiological, or physical agents, including exposures through food, water, or air.

(C) Instances, clusters, or outbreaks of unusual, novel, and/or emerging diseases or findings not otherwise named in this rule, appearing to be naturally occurring, but posing a substantial risk to public health and/or social and economic stability due to their ease of dissemination or transmittal, associated mortality rates, or the need for special public health actions to control.

2. Reportable within one (1) day diseases or findings shall be reported to the local health authority or to the Department of Health and Senior Services within one (1) calendar day of first knowledge or suspicion by telephone, facsimile or other rapid communication. Reportable within one (1) day diseases or findings are—

(A) Diseases, findings or agents that occur naturally, or from accidental exposure, or as a result of an undetected bioterrorism event:

- Acute respiratory distress syndrome (ARDS) in patients under fifty (50) years of age (without a contributing medical history)
- Animal (mammal) bite, wound, humans
- Brucellosis (023, A23)
- Cholera (001, A00)
- Dengue fever (065.4, A90, A91)
- Diphtheria (032, A36)
- Glanders (024, A24.0)
- *Haemophilus influenzae*, invasive disease (038.41, 041.5, 320.0, A41.3, J14, G00.0)
- Hantavirus pulmonary syndrome (079.81, 480.8, B33.8)
- Hemolytic uremic syndrome (HUS), post-diarrheal (283.11, D59.3)
- Hepatitis A (070.0, 070.1, B15)
- Influenza - associated pediatric mortality (18 years of age or younger) (487, J10)
- Influenza - associated public and/or private school closures (487, J10)
- Lead (blood) level greater than or equal to forty-five micrograms per deciliter ($\geq 45 \mu\text{g}/\text{dL}$) in any person equal to or less than seventy-two (≤ 72) months of age

- Measles (rubella) (055, B05)
- Meningococcal disease, invasive (036, A39)
- Novel Influenza A virus infections, human (487, J10)
- Outbreaks (including nosocomial) or epidemics of any illness, disease or condition that may be of public health concern, including illness in a food handler that is potentially transmissible through food
- Pertussis (033.0, A37.0)
- Poliomyelitis (045, A80)
- Poliovirus infection, nonparalytic
- Q fever (083.0, A78)
- Rabies (animal)
- Rubella, including congenital syndrome (056, 771.0, B06, P35.0)
- Shiga toxin-producing *Escherichia coli* (STEC) (008.04, A04.3)
- Shiga toxin positive, unknown organism (005.8, 005.9, A04.8, A04.9)
- Shigellosis (004, A03)
- Staphylococcal enterotoxin B (988, T62)
- *Streptococcus pneumoniae*, drug resistant invasive disease (038.2, 481, 482.3, A40.3, J13)
- Syphilis, including congenital syphilis (090, 093-097, A50-A52)
- T-2 mycotoxins (989.7, 989.9, T64)
- Tetanus (037, A35)
- Tuberculosis disease (010-018, A15-A19)
- Tularemia (non-pneumonic) (021.3-9, A21.0-1, A21.3-9)
- Typhoid fever (*Salmonella typhi*) (002.0, A01.0)
- Vancomycin-intermediate *Staphylococcus aureus* (VISA), and Vancomycin-resistant *Staphylococcus aureus* (VRSA) (038.11, 041.11, A41.0, A49.0)
- Venezuelan equine encephalitis virus neuroinvasive disease (066.2, A92.2)
- Venezuelan equine encephalitis virus non-neuroinvasive disease (066.2, A92.2)
- Yellow fever (060.9, A95)

(B) Diseases, findings or adverse reactions that occur as a result of inoculation to prevent smallpox, including but not limited to the following:

- Accidental administration
- Contact transmission (i.e., vaccinia virus infection in a contact of a smallpox vaccinee)
- Eczema vaccinatum
- Erythema multiforme (roseola vaccinia, toxic urticaria)
- Fetal vaccinia (congenital vaccinia)
- Generalized vaccinia
- Inadvertent autoinoculation (accidental implantation)
- Myocarditis, pericarditis, or myopericarditis
- Ocular vaccinia (can include keratitis, conjunctivitis, or blepharitis)
- Post-vaccinal encephalitis or encephalomyelitis
- Progressive vaccinia (vaccinia necrosum, vaccinia gangrenosa, disseminated vaccinia)
- Pyogenic infection of the vaccination site
- Stevens-Johnson Syndrome

3. Reportable within three (3) days diseases or findings shall be reported to the local health authority or the Department of Health and Senior Services within three (3) calendar days of first knowledge or suspicion. These diseases or findings are—

- Acquired immunodeficiency syndrome (AIDS) (042, B20)
- Arsenic poisoning

Continued on page 2

Revised 6/2005



OUTBREAK INVESTIGATION

1. Establish outbreak, cluster, epidemic (confirm)
2. Develop case definition
3. Characterize cases re: person, place, time
(Personal, Demographic, Onset & duration of symptoms)
4. Form hypothesis
5. Test hypothesis
6. Implement and evaluate interventions
7. Write report



SYNDROMIC SURVEILLANCE

SYNDROMIC SURVEILLANCE

- Based on signs and symptoms
- Sentinel event, possible predictor of reportable disease
- Report to local health department
 - Enter data
 - Analyze data
 - Look for trends
 - Alert partners of increases



17

SENTINEL EVENTS

- **Pandemic Influenza**
- **Deliberate adulteration of food/water**
- **Chemical Terrorism**
- **Bioterrorism**
 - **Bacterial**
 - Anthrax
 - Brucellosis
 - Cholera
 - Glanders
 - Plague
 - Tularemia
 - Q fever
 - **Bioterrorism continued**
 - **Viruses**
 - Smallpox
 - Viral hemorrhagic fevers
 - Viral encephalitides
 - **Toxins**
 - Botulinum
 - Staph entero-B
 - Ricins
 - T-2 Mycotoxins



18

WHAT TO REPORT?

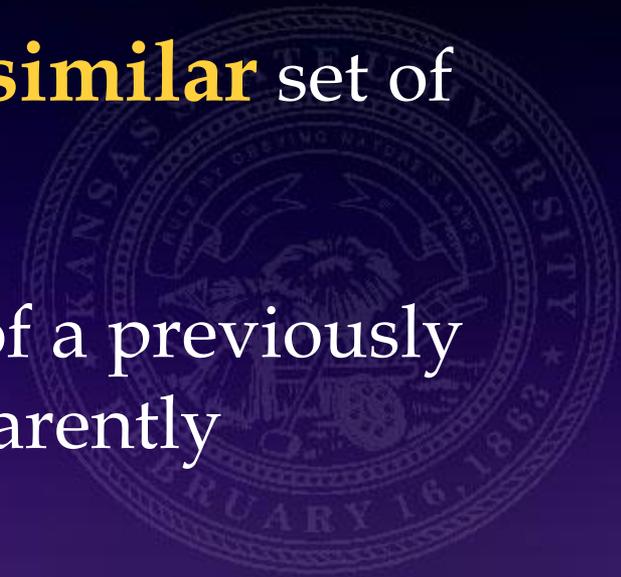
- **Immediately report:**

Unusual occurrence of any disease, infection, or condition that threatens the health of the public



INDEX OF SUSPICION

- Are there an **unusual number** of patients presenting with similar symptoms?
- Is there an **unusual presentation** of symptoms?
- Are patients presenting with a **similar** set of exposures?
- Is this an **unexplained case** of a previously healthy individual with an apparently infectious disease?



WHERE AND HOW TO REPORT?

WHERE AND HOW TO REPORT?

- All communicable disease reports should be reported to the local health department based on local ordinances and practices.
- Reports may be made by phone or by fax depending on the local health department.



23

REPORTING TO JACKSON COUNTY HEALTH DEPARTMENT

Ellen Dorshow-Gordon, MPH

Epidemiologist

Phone: 816-404-9881

ellen.dorshow-gordon@tmcmcd.org

Rebecca Conway, RN

Communicable Disease Nurse

Phone: 816-404-9884

rebecca.conway@tmcmcd.org

Sara Walz, RN

Communicable Disease Nurse

Phone: 816-404-9880

sara.walz@tmcmcd.org

Fax to CD 816-404-9885



35

WHAT IS ESSENCE?

WHAT IS ESSENCE?

- **E**lectronic
- **S**urveillance
- **S**ystem for the
- **E**arly
- **N**otification of
- **C**ommunity-based
- **E**pidemics

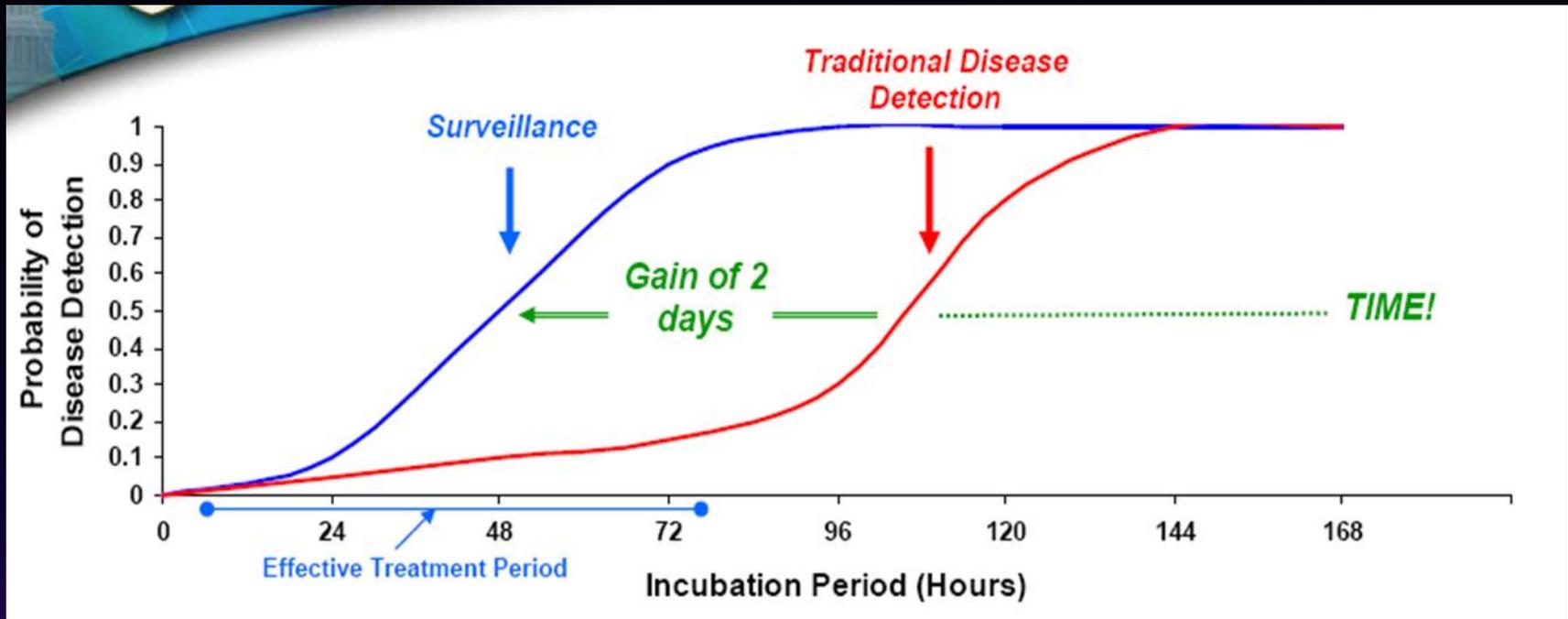


ESSENCE

- Developed by Johns Hopkins University and Department of Defense
- Automated surveillance tool
- Analysis & reporting of pre-defined syndrome groups
- Data mining ability
 - In MO, DHSS installed system to retrieve information from Emergency Department visits
 - Information includes
 - Hospital
 - Age range
 - Date of birth
 - City of residence
 - Syndrome
 - Medical record Number
- Web based and secured



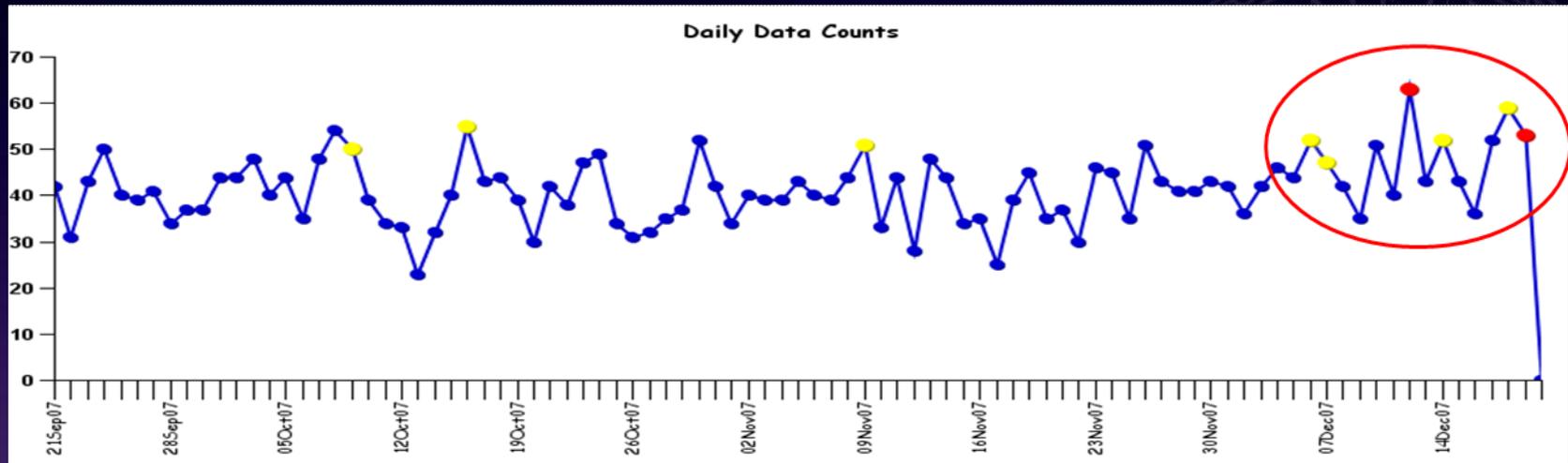
In response to the need for **earlier recognition of significant health events**, public health institutes have developed modern surveillance applications based on the world wide web.



Caution: These systems provide an early indication of a health event but additional investigation is often required to confirm presence of any particular disease.

EARLY EVENT DETECTION

- Analysis of time-sensitive data for the purpose of detecting outbreaks as early as possible
- “Flag” a syndrome group whose number of visits was higher than expected to detect anomalies as early as possible

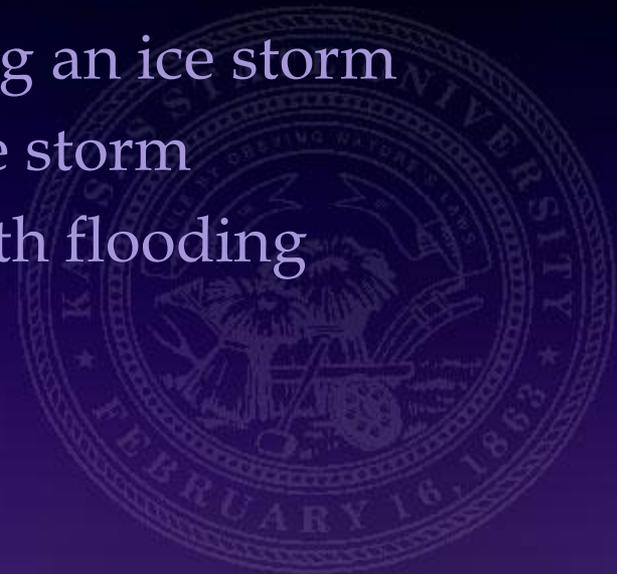


SITUATIONAL AWARENESS

- Ongoing health events to track impact in terms of time, geography, and demographics

Examples:

- Influenza-like illness
- Carbon monoxide poisonings following an ice storm
- Injuries related to falls following an ice storm
- Injuries related to activities dealing with flooding conditions
- Influenza-like illness



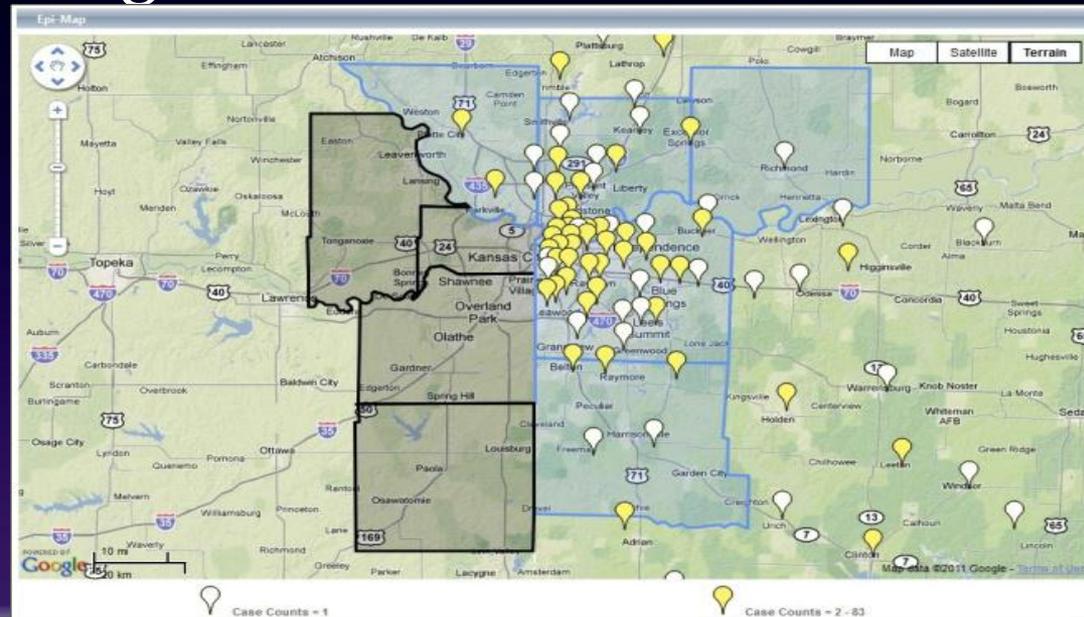
X-SENTINEL

- **Regional local public health system**
- Allows secure transfer of data from one public health jurisdiction to another
- **Epidemiologic investigations**

and management:

Case reporting

Epi curves



EMERGENCY PREPAREDNESS

➤ “Ready in 3”

by Missouri Department of Health and Senior Services

3 Steps To Prepare For An Emergency:

- 1) Create a Plan
- 2) Prepare a Kit
- 3) Listen for Information

(Order online -<http://health.mo.gov/emergencies/readyin3/>)



RESOURCES

RESOURCES

- www.jacohd.org
- www.health.mo.gov
- <http://health.mo.gov/data/CommunityDataProfiles/index.html>
- <http://health.mo.gov/data/mica/MICA/>
- www.cdc.gov
- www.cdc.gov/nchs/healthy_people.htm
- <http://www.cdc.gov/socialdeterminants/Definitions.html>
- http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/index.html
- www.fda.gov
- www.apha.org
- www.apic.org
- www.naccho.org
- www.marc.org
- www.whoopingcough.net
- www.coughsafe.com
- others

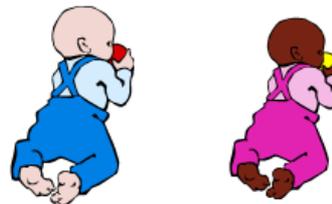


RESOURCES (CONTINUED)

- Peds Red Book (American Academy of Pediatrics)
- Control of Communicable Diseases (APHA)
- CDC Pink Book - Epidemiology and Prevention of Vaccine-Preventable Diseases (CDC WEB site)
- Manuals – DHSS WEB site
- TB Core Curriculum (on line at CDC WEB site)
- DHSS and Other
- Local Public Health Agencies



THE END



40



Restaurant Inspections

- Attended restaurant/food inspections with Jackson County Environmental Health Dept. staff
- Applied aspects of food safety and sanitation
- Critical and non-critical violations



FOOD ESTABLISHMENT INSPECTION REPORT

BASED ON AN INSPECTION THIS DAY, THE ITEMS NOTED BELOW IDENTIFY NONCOMPLIANCE IN OPERATIONS OR FACILITIES WHICH MUST BE CORRECTED BY THE NEXT ROUTINE INSPECTION, OR SUCH SHORTER PERIOD OF TIME AS MAY BE SPECIFIED IN WRITING BY THE REGULATORY AUTHORITY. FAILURE TO COMPLY WITH ANY TIME LIMITS FOR CORRECTIONS SPECIFIED IN THIS NOTICE MAY RESULT IN CLOSURE OF YOUR FOOD OPERATIONS.

| | | | | |
|--|-----------------------------------|------------------------------|----------------------------------|-------------------------|
| Owner Name 11-19-02 | Person In Charge Sheena | Establishment IHOP | City Code Lee's Summit | Priority High |
| Address 628 NE 291 HWY LEE'S SUMMIT, MO 64086 | Phone (816)525-6068 | Fax () | Dist NW | Co Jackson |
| Food Service Restaurant | Retail Food ***** | Purpose Routine | Water Supply ***** | Sewage ***** |

| |
|-----------------------------------|
| Establishment No LS-400 |
|-----------------------------------|

Temperature Observations

| Food Product | Temperature | Storage Location |
|--------------|-------------|------------------|
| | 39-41 F | Reach-in coolers |
| | 40 F | Walk-in cooler |
| Gravy | 151 F | Steam table |
| Sour cream | 41 F | Prep cooler |

Critical Violations

| Violation | Count | Title | Correct By | Initial | Remarks |
|-----------|-------|--|------------|---------|--|
| 3-501.16 | 1 | Potentially hazardous food, Hot and Cold Holding.* | 5/4/2012 | | A package of roasted tomato sitting on the cook's line under no temperature control and it was discarded. The soup in the warmer was 125 F and there was no water in the warmer. The soup was discarded. |

Total Critical Violations 1

Non-Critical Violations

| Violation | Count | Title | Correct By | Initial | Remarks |
|-----------|-------|--|------------|---------|--|
| 4-501.11 | 1 | Good Repair and Proper Adjustment. | 7/1/2012 | | The gaskets on the cook's line doors were in disrepair. |
| 4-602.11 | 2 | Equipment Food-contact surfaces and Utensils.* | 5/2/2012 | | A knife with food debris on the cook's line magnetic knife strip. Food debris was observed in the lid and utensil containers in the dishwashing room. CORRECTED. |

Total Non-Critical Violations 2

Critical Violations

| Violation | Count | Title | Correct By | Initial | Remarks |
|-----------|-------|--|------------|---------|---|
| 3-501.16 | 1 | Potentially hazardous food, Hot and Cold Holding.* | 5/4/2012 | | A package of roasted tomatoes was observed sitting on the cook's line under no form of temperature control and it was 107 F. It was discarded. The soup in the left-side warmer was 125 F and there was no water in the warmer. The soup was discarded. |

Total Critical Violations 1

Non-Critical Violations

| Violation | Count | Title | Correct By | Initial | Remarks |
|-----------|-------|--|------------|---------|---|
| 4-501.11 | 1 | Good Repair and Proper Adjustment. | 7/1/2012 | | The gaskets on the cook's line prep cooler doors were in disrepair. |
| 4-602.11 | 2 | Equipment Food-contact surfaces and Utensils.* | 5/2/2012 | | A knife with food debris on it was observed on the cook's line magnetic knife strip. Food debris was observed in the lid and utensil containers in the dishwashing room. CORRECTED. |

Total Non-Critical Violations 2

Comments

A re-inspection fee of one hundred dollars (\$100) will be charged for a violation (critical violation or non-critical violation) when a re-inspection is required. This fee is due at time of re-inspection in the form of a check or money order made out to JACKSON COUNTY (inspectors cannot accept cash in the field). This re-inspection will check for the correction of critical violation 3-501.16.

Received By
Sheena

Re-Inspection Date
Friday, May 04, 2012

Inspected By
Wayne McGrath

San No
009

Phone/Fax
(816)881-4415

Inspection Date
Wednesday, May 02, 2012

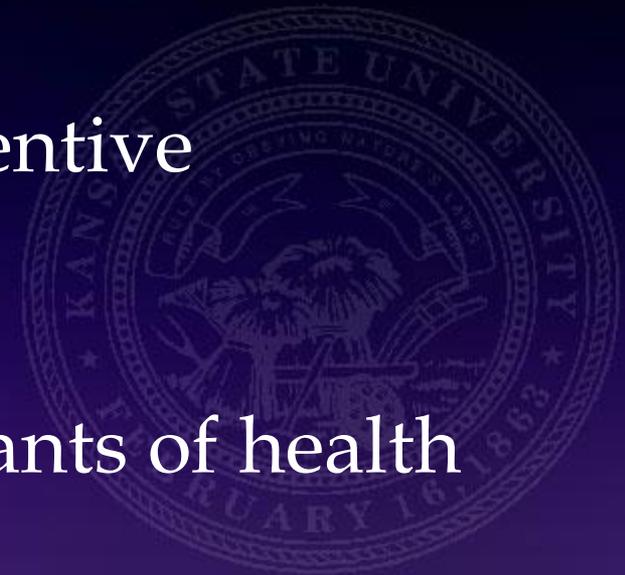
Time In
Time Out

Meetings and Seminars

- Jackson County Health Department (**JACOHD**) visit and introduction to the staff
- Truman Medical Center **HIPPA and SIPS** (Security, Infection Prevention, Safety) training at TMC, HH
- APIC seminar & Table Top exercise - **Tuberculosis Management Updates**, at Johnson County Health Department, Kansas
- **MARC** (Mid-American Regional Council) Public Health Subcommittee meeting at MARC building, Kansas City, MO
- **Emergency Preparedness monthly meetings**, Independence, MO
- **Clay County Public Health Center** (Meeting with Dr. Ximena Somoza)
- **Communicable Disease Meeting**, The Health Dept. of KCMO
- **Cryptosporidium Outbreak Prevention**, Lee's Summit, MO

Recommendations

- Correlation of clinical and public health
- Developing a Community-Wide Antibioqram
- Implementation of new preventive strategies at school level
- Emphasis on social determinants of health



What I Learned?

- Advanced Public Health System
 - Meetings and seminars
- Applied aspects of Epidemiology
 - CHA, Epi. Database (DHSS, CDC)
 - Disease Surveillance
- Skills - as a Public Health professional
 - Time management
 - Leadership
 - Collaboration
 - Organization & Communication



Application of K-State Education

➤ **Community Health Assessment Project**

- DMP 754 Introduction to Epidemiology
- STAT 703 Statistical Methods for Natural Scientists
- KIN 818 Social and Behavioral Bases of Public Health

➤ **Restaurant Inspections**

- DMP 806 Environmental Toxicology
- FDSCI 730 Multidisciplinary Overview Food Safety & security
- FDSCI 600 Food Microbiology



Application of K-State Education

➤ **Preparing a Health Survey Tool**

- HN 600 Public Health Nutrition
- KIN 818 Social and Behavioral Bases of Public Health

➤ **Presentations**

- DMP 754 Introduction to Epidemiology
- HMD 720 Administration of Health Care Organizations
- KIN 818 Social and Behavioral Bases of Public Health
- STAT 703 Statistical Methods for Natural Scientists



Application of K-State Education

➤ **Research Project**

- DMP 880 Problem Course
- DMP 860 Pathogenic Mechanisms
- DMP 850 Domestic Animal Immunology
- BIOL 545 Human Parasitology

➤ **Personal & Professional Growth**

- DMP 840 MPH Field Experience
- DMP 880 Problem Course
- DMP 815 Multiple Thoughts and Analysis



Acknowledgments

- **MPH Supervisory Committee Members**

- Dr. Michael Cates
- Dr. Carol Wyatt
- Dr. Sanjeev Narayanan

- **Mrs. Barta Stevenson**

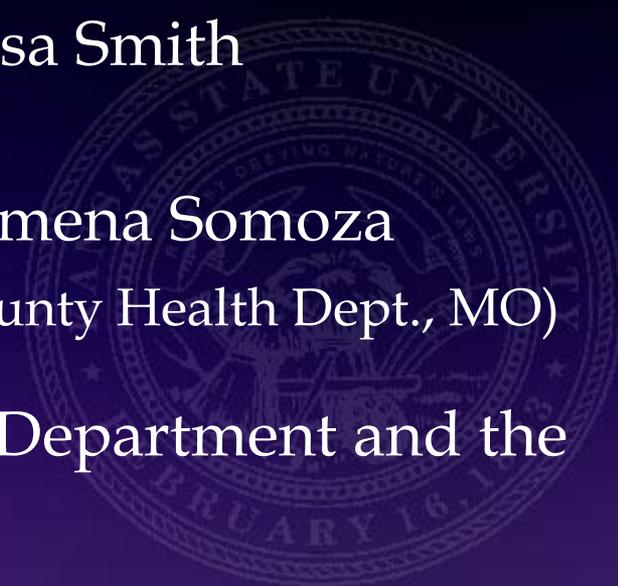
- **MPH Program for Travel Grant**

- **Jackson County Health Department, MO**

- Mrs. Ellen Dorshow-Gordon
- Mr. James Kelly
- Ms. Alisa Smith

- **Dr. Ximena Somoza**
(Clay County Health Dept., MO)

- **DMP Department and the staff**



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Thank You

