Indiana Health Challenges

Indiana Rural Health Association Annual Conference

Kris Box, MD, FACOG
State Health Commissioner
June 26, 2018

**Indiana State
Department of Health**

ISDH Priorities

- Opioid epidemic
- Obesity and related health issues
- Infant mortality
- Adult smoking

Rural Areas:
Unique Challenges

- More likely to live in a medically underserved area or one with a shortage of primary care health professionals

- Higher mortality rates for diabetes, cardiovascular disease

- Higher incidence of chronic lower respiratory disease

- More likely to smoke during pregnancy compared with urban residents

Rural Areas: Unique Solutions

- Telemedicine
  - **Improved Access to care:** Improves access to patients and allows physicians and health facilities to expand their reach beyond their own offices.

  - **Cost Efficiency:** Reduces cost of healthcare and increases efficiency through better management of chronic diseases, reduced travel times and fewer hospital stays.

- Project Echo
  - Indiana: Started Jan. 18 with Hepatitis C focus
  - Partners community-focused primary care clinicians with specialists to develop treatment plans that will enhance the delivery of hepatitis C care.
  - Goal is to expand to other conditions (ie, MAT for SUD)
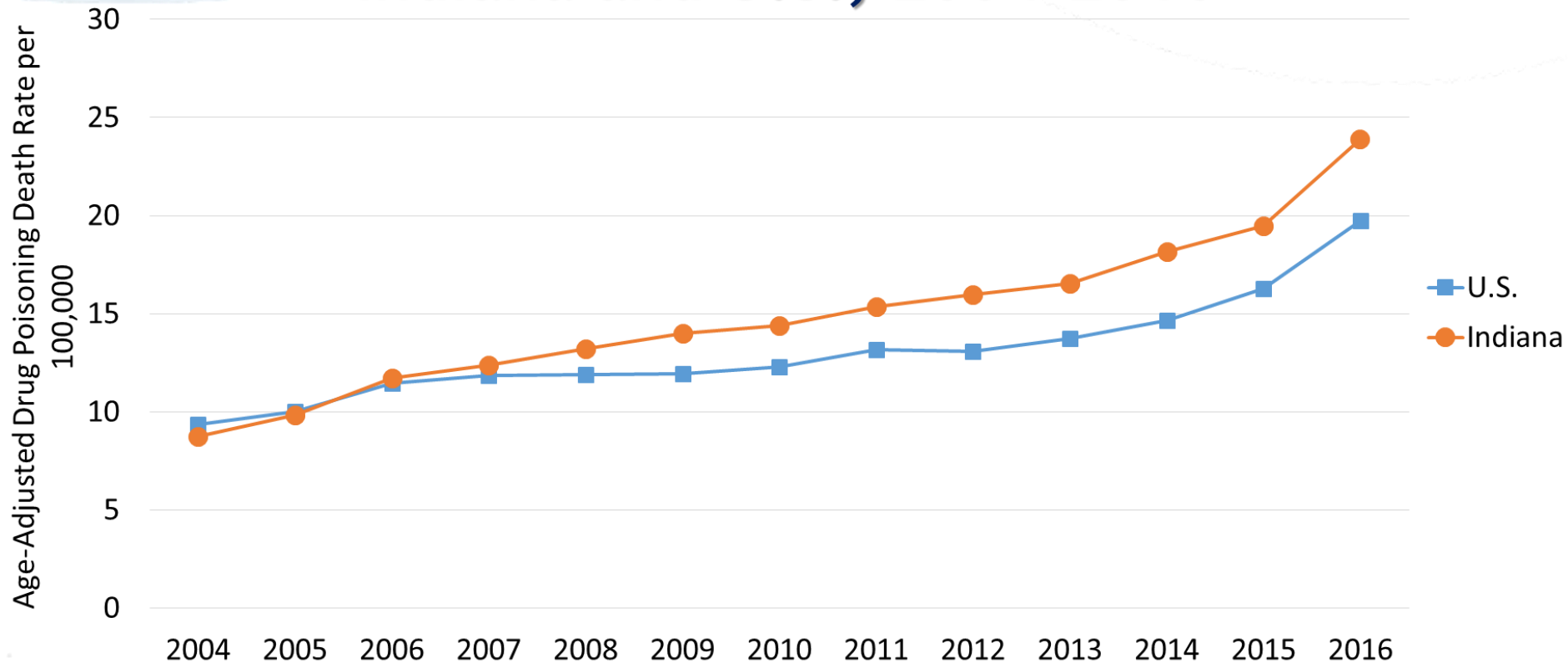
Rates of motor vehicle traffic and drug overdose deaths, United States, 1999-2015
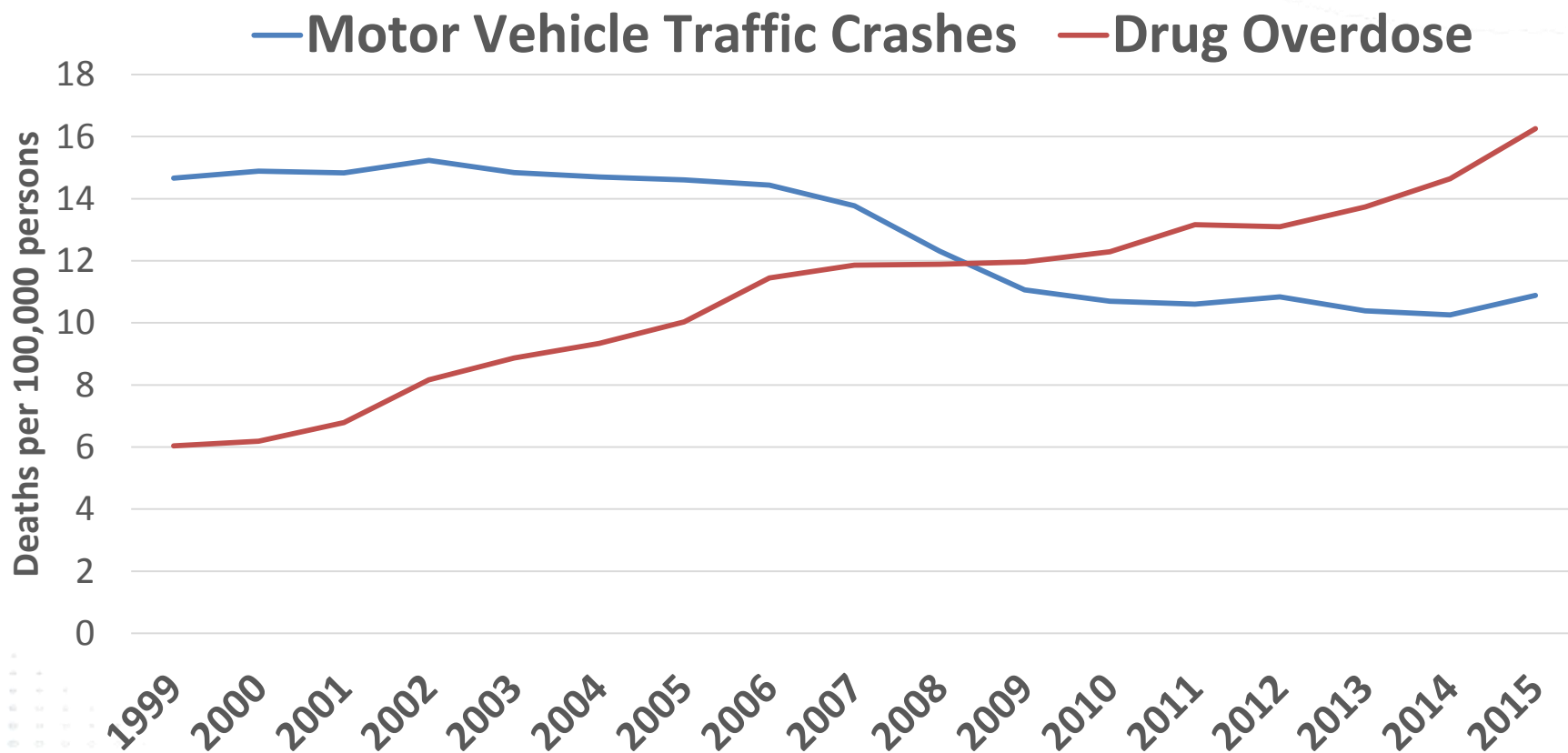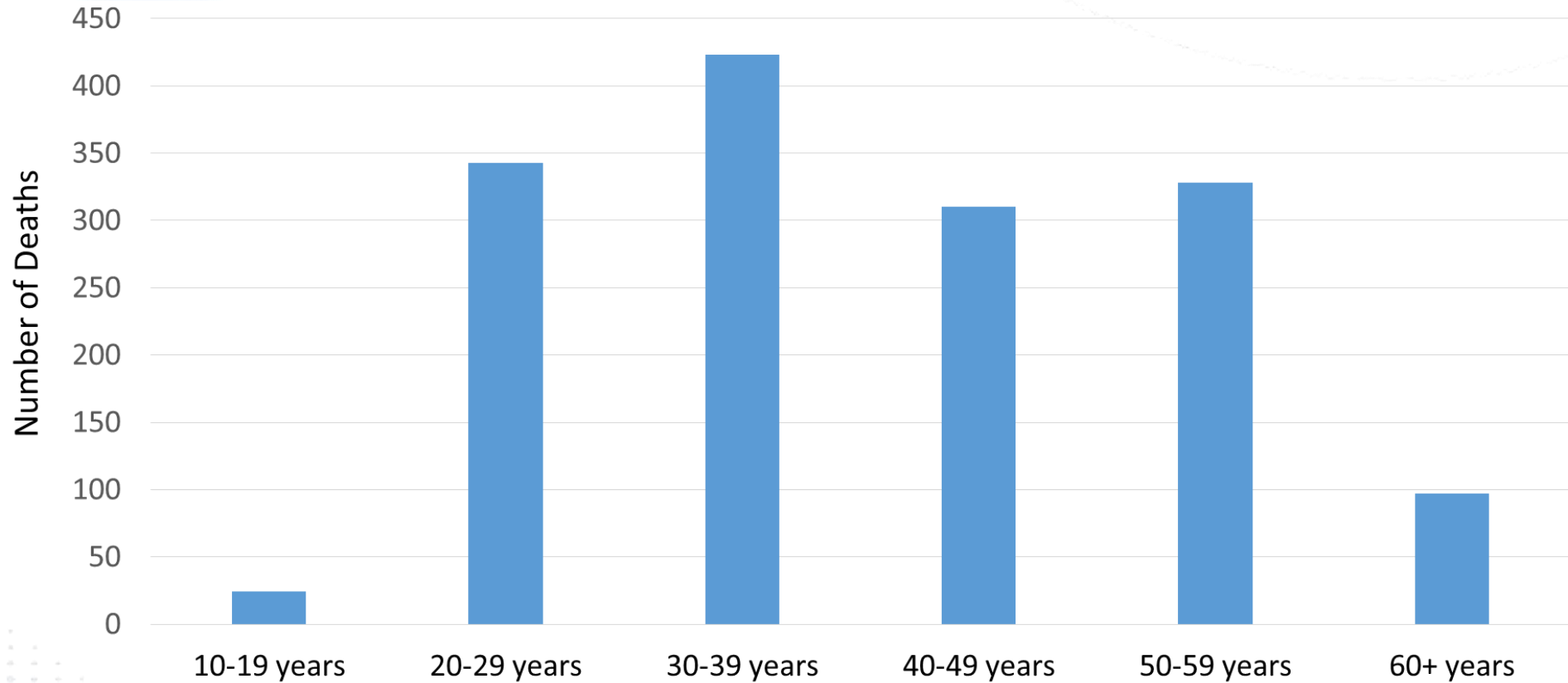

Source: CDC WISQARS data

*Age-adjusted death rates using the U.S. population as the standard

Drug Poisoning Death Rates by Year
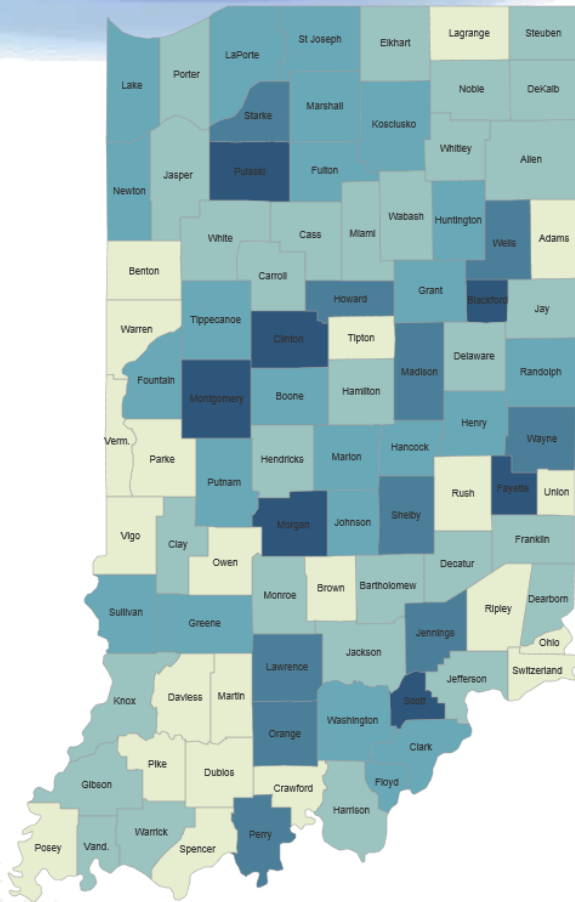# Indiana and U.S., 2004-2016

Source: CDC WISQARS, Prepared by ISDH Division of Trauma and Injury Prevention

Drug Poisoning Deaths by Age Group
Indiana, 2016

Source: CDC WISQARS, Prepared by ISDH Division of Trauma and Injury Prevention
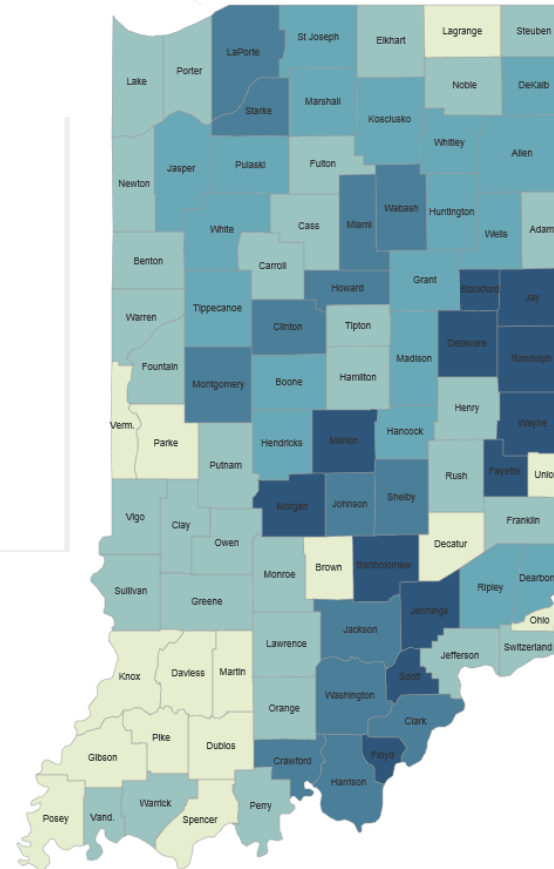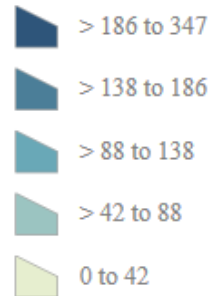
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Drug Overdose Death Rates
Indiana, 2012-2016

Source: ISDH Stats Explore

Non-fatal ER Visits due to Opioid Overdose

Map Description

County

- > 186 to 347
- > 138 to 186
- > 88 to 138
- > 42 to 88
- 0 to 42

2012

2016

Rapid expansion of injection drug use heralded by epidemic of new HCV infections in areas with historically low rates of HIV infection

2006

2012

Acute HCV infections incidence per 100,000 population

- ☐ 0-1
- ☐ >1-10
- ☐ >10-20
- ☐ >20-40
- ☐ >40

Acute HCV infections incidence per 100,000 population

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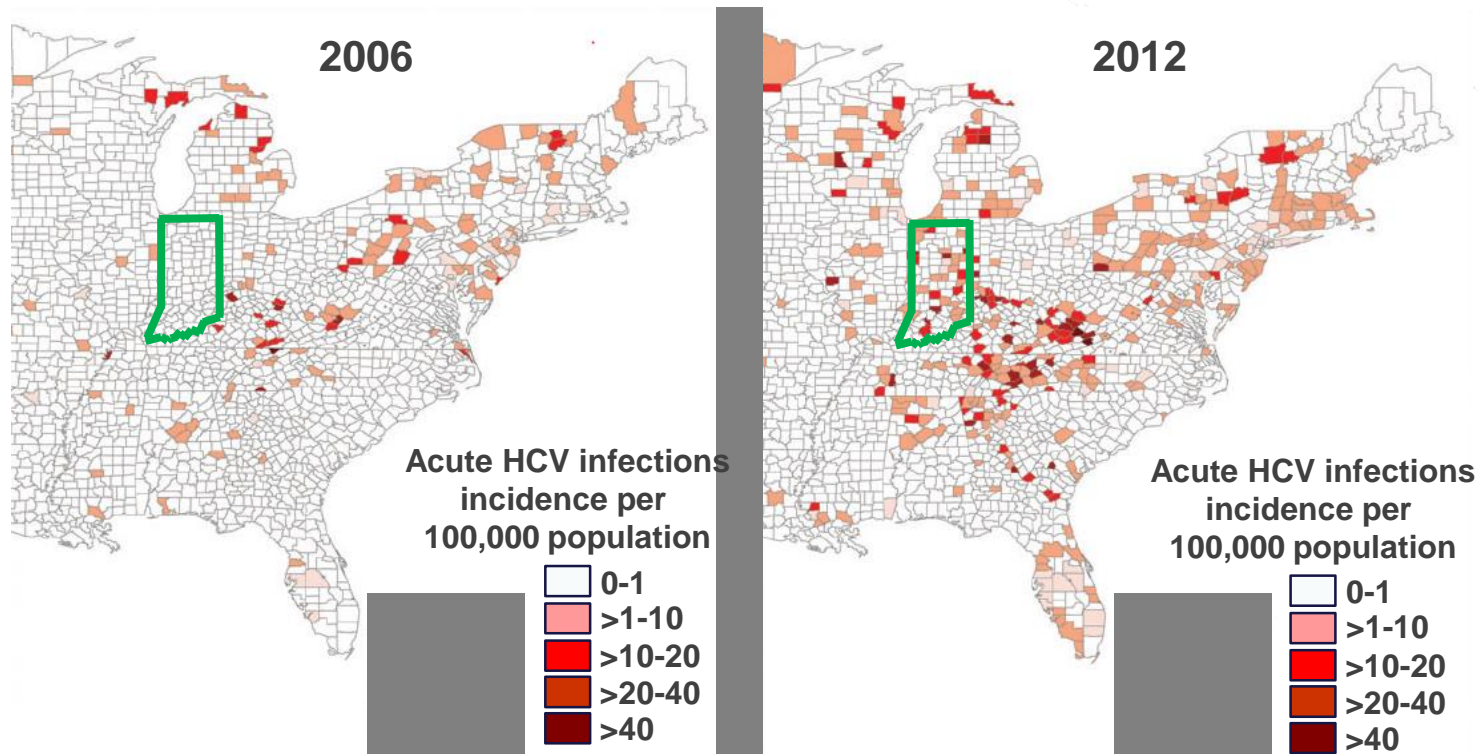
Suryaprasad <u>Clin Infect Dis</u>; 2014, 59(10):1411-1419

IN Syringe Service Programs

Syringe Service
Program
Providing
Counties

Updated
12-1-2017-EC

SSP Services
Scott
Fayette
Madison*
Monroe
Wayne
Clark
Allen
Tippecanoe

*Not currently
operational.

Ongoing Efforts

- ISDH is just one of many state agencies collaborating
- ISDH HIV division provided funding to Fayette Regional health system for additional treatment beds for people with HIV and substance use disorder
- ISDH Stats Explorer makes data more accessible: https://gis.in.gov/apps/isdh/meta/stats_layers.htm
- Syndromic surveillance for overdoses
- Fresh Start treatment program
- Renewed statewide standing order for naloxone
- www.optIN.in.gov (naloxone locator)
- Naloxone grants to 49 rural counties

Fighting Back: Prevention

- Coroner reporting:
    - Pilot program, going statewide July 1 due to legislation
    - Coroners conduct standardized, comprehensive toxicology screening for drug overdoses
    - Data sent to ISDH and shared to determine common or unusual drugs in use
    - Goal is to reduce number of unidentified substances on death certificates and better understand drugs circulating in our communities

- INSPECT-EMR integration
    - Provides easy access for providers to look up patients before prescribing

Fighting Back
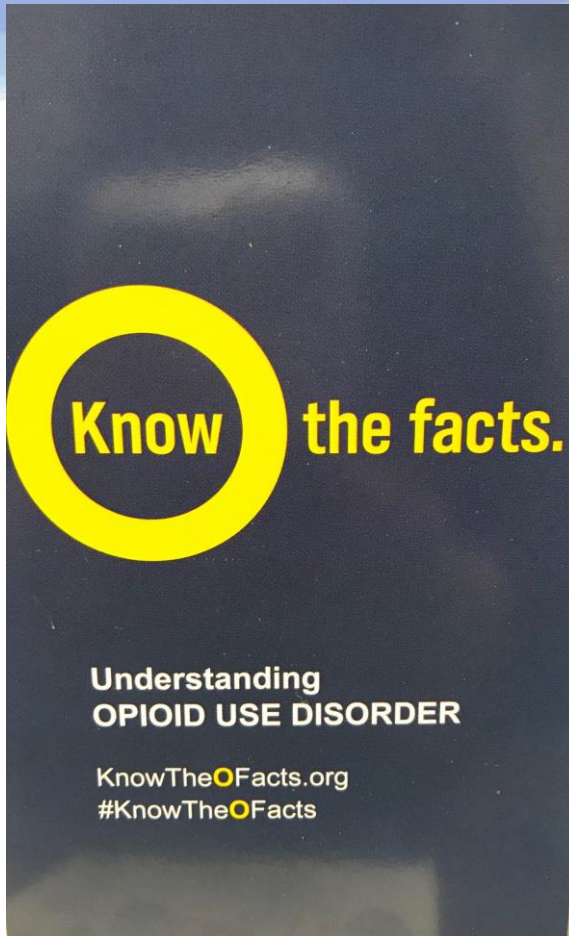
- ISDH has awarded thousands of doses of naloxone to Indiana counties and first responders
- FSSA humanizing campaign to reduce stigma, emphasizes that recovery is possible
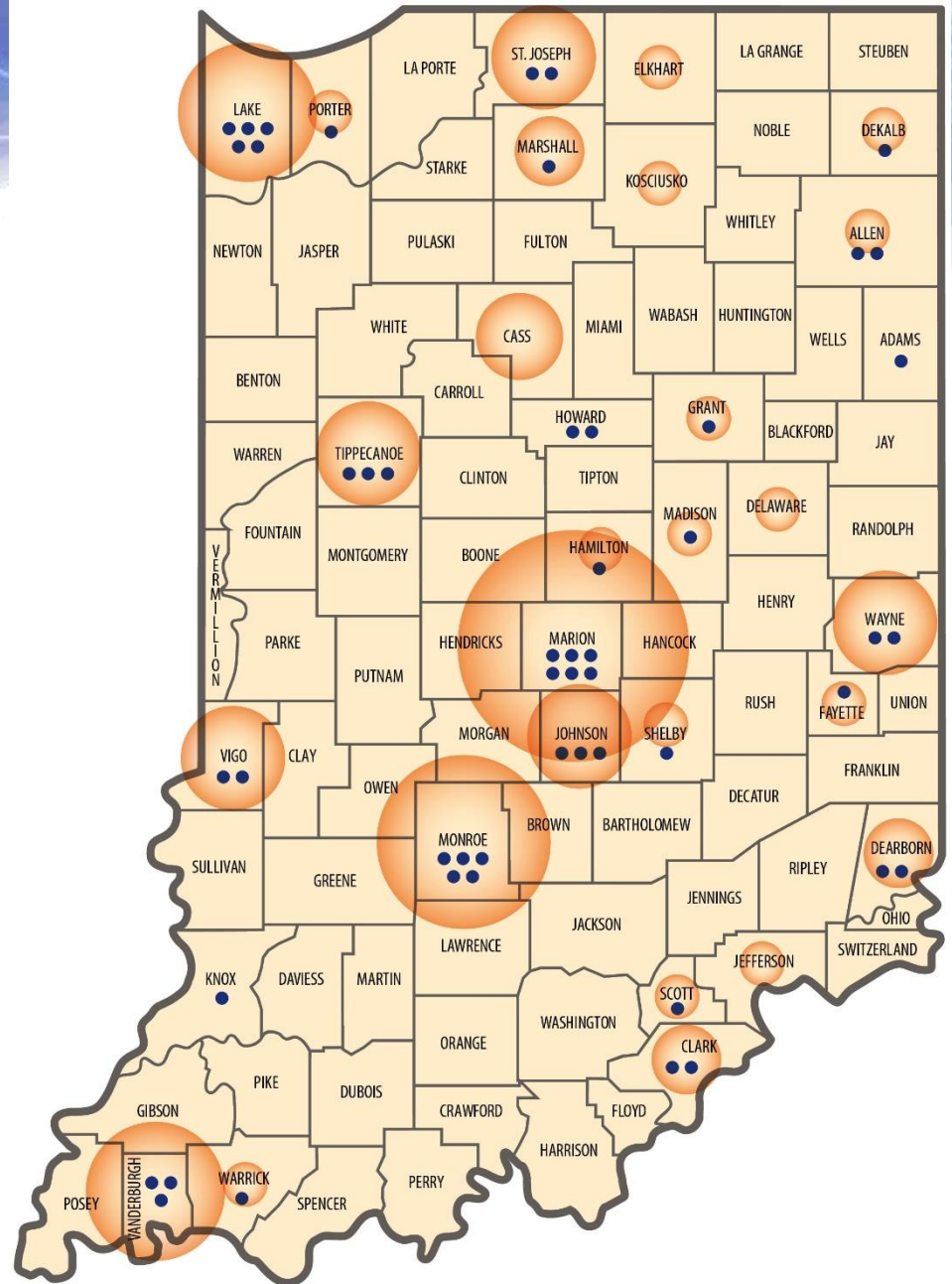
Division of Mental Health and Addiction

Addiction Inpatient Units and Residential Facilities

Division of Mental Health and Addiction

New or Expanded Points of Access

Obesity in Indiana

- Indiana is the 10th most obese state in the U.S.
- Over two-thirds (66.5%) of Indiana adults are overweight or obese
  - Obesity rate: 32.5%
- One-third of Indiana children are overweight or obese
- Contributing factors:
  - We're eating more & worse
  - We're moving less
  - Less opportunity to engage in physical activity
  - Working longer hours, sitting more
  - Increased screen time
- Obesity increases risk for hypertension and diabetes, thereby increasing heart disease and stroke

Adult Obesity in Indiana

Adults (%) 20 and Older Considered Obese

BEST ▬▬▬▬▬▬▬▬▬▬ WORST   MISSING

*Based on self-reported height and weight.

Obesity Costs to Indiana

- Hoosiers pay $3.5 billion in obesity-related medical costs

- In Indiana, <u>36.9% of obesity-related costs are financed by Medicare and Medicaid</u>

- Obese children miss more school than their normal-weight peers

- Obese adults experience more absenteeism and presenteeism than their normal weight peers

  o Obesity-related absenteeism costs employers over $6 billion/year in US

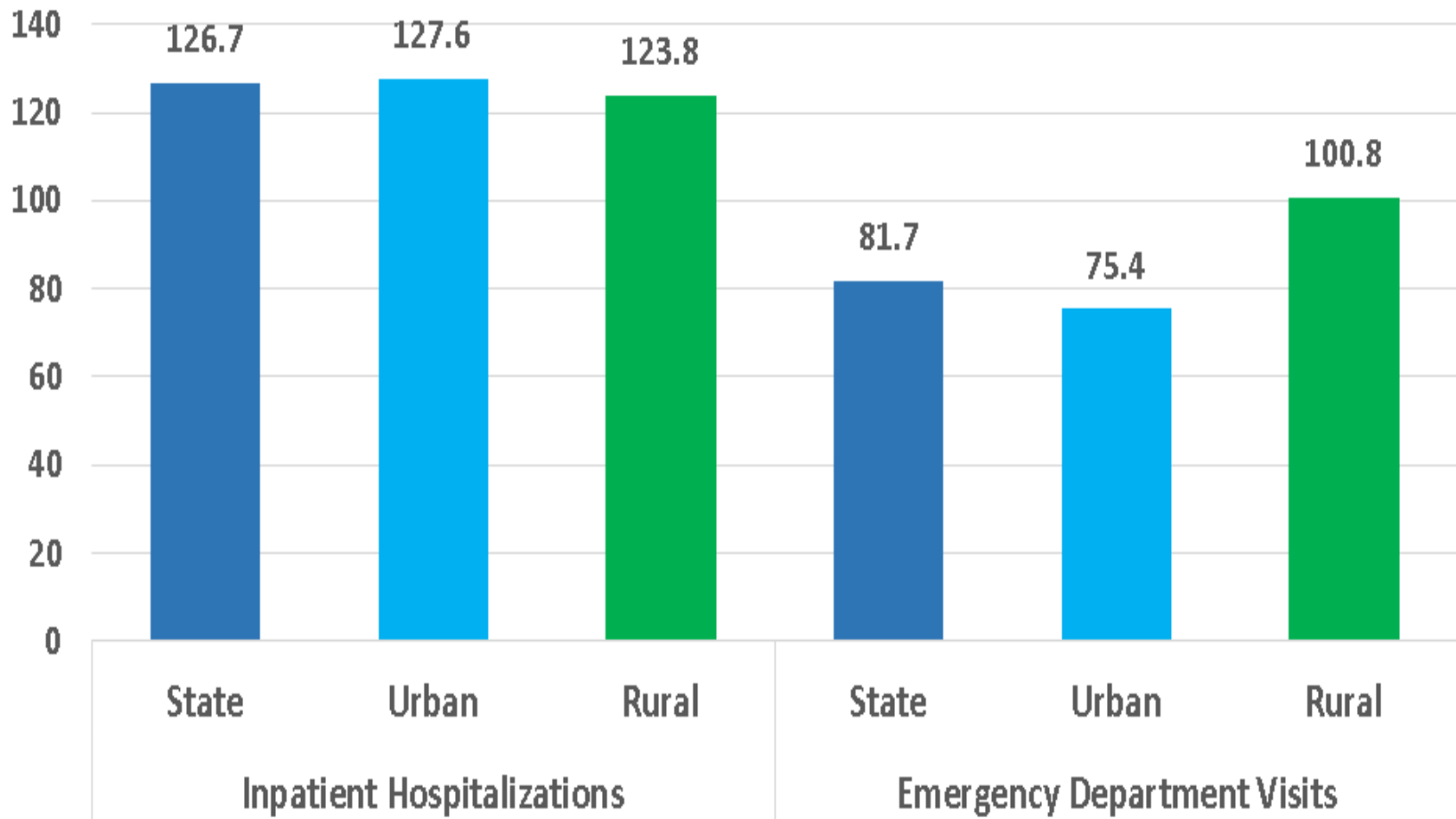 o Healthcare costs for obese individuals $1,400/ year higher

Urban/Rural* Mortality Rates: Heart Disease
Indiana 2016
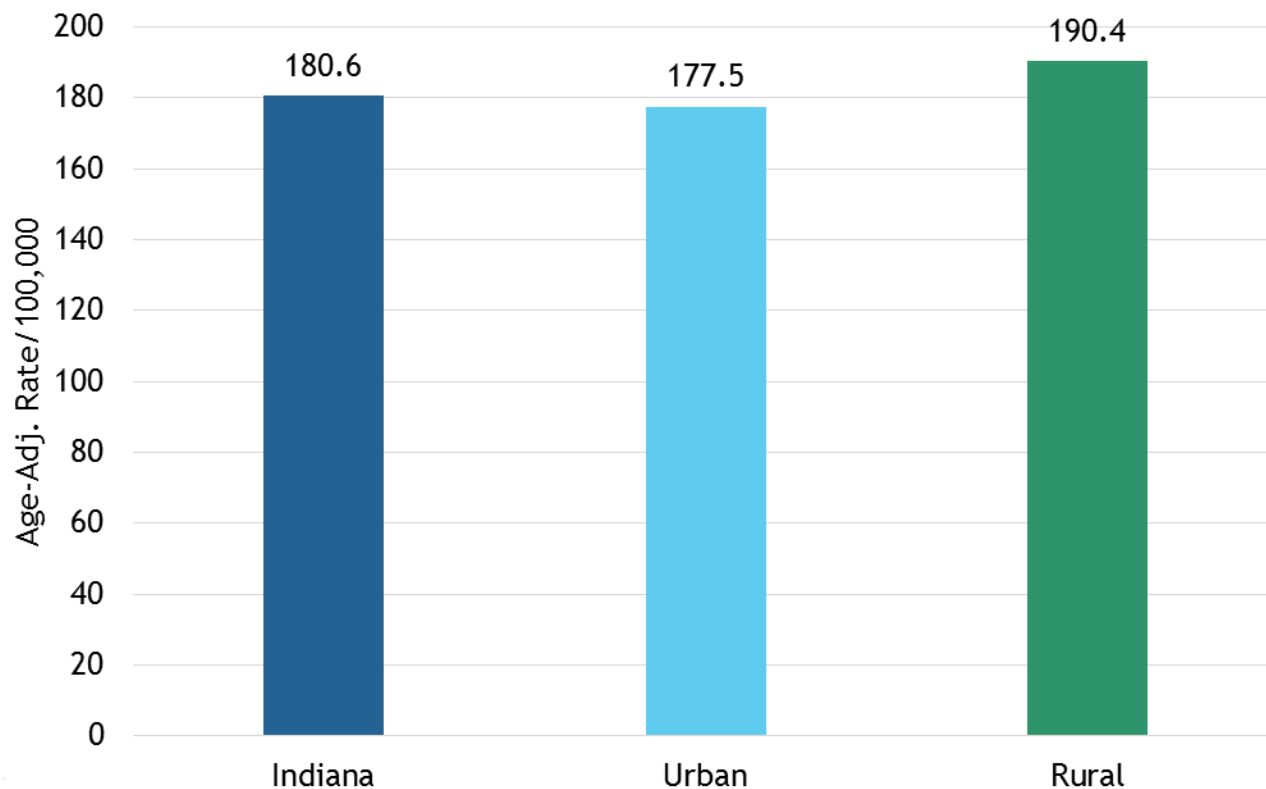
*Rural is defined by Rural-Urban Commuting Area codes for whole counties

Major Cardiovascular Disease Hospitalizations in 2015
Age-adjusted rates per 10,000

What We're Doing at ISDH

- Help schools find creative ways to incorporate more physical activity, including physical activity ideas for students with disabilities

- Facilitate Active Living Workshops in selected communities

- Help fund bicycle and pedestrian master plans in selected communities

- Train employers on worksite wellness best practices

- Encourage farmers' market managers to accept SNAP/WIC benefits

- Train community wellness coordinators on best practices for obesity prevention

- Fund physical activity trainings for child care program staff

- Collaborate with hospitals to support breastfeeding

Infant Mortality Defined
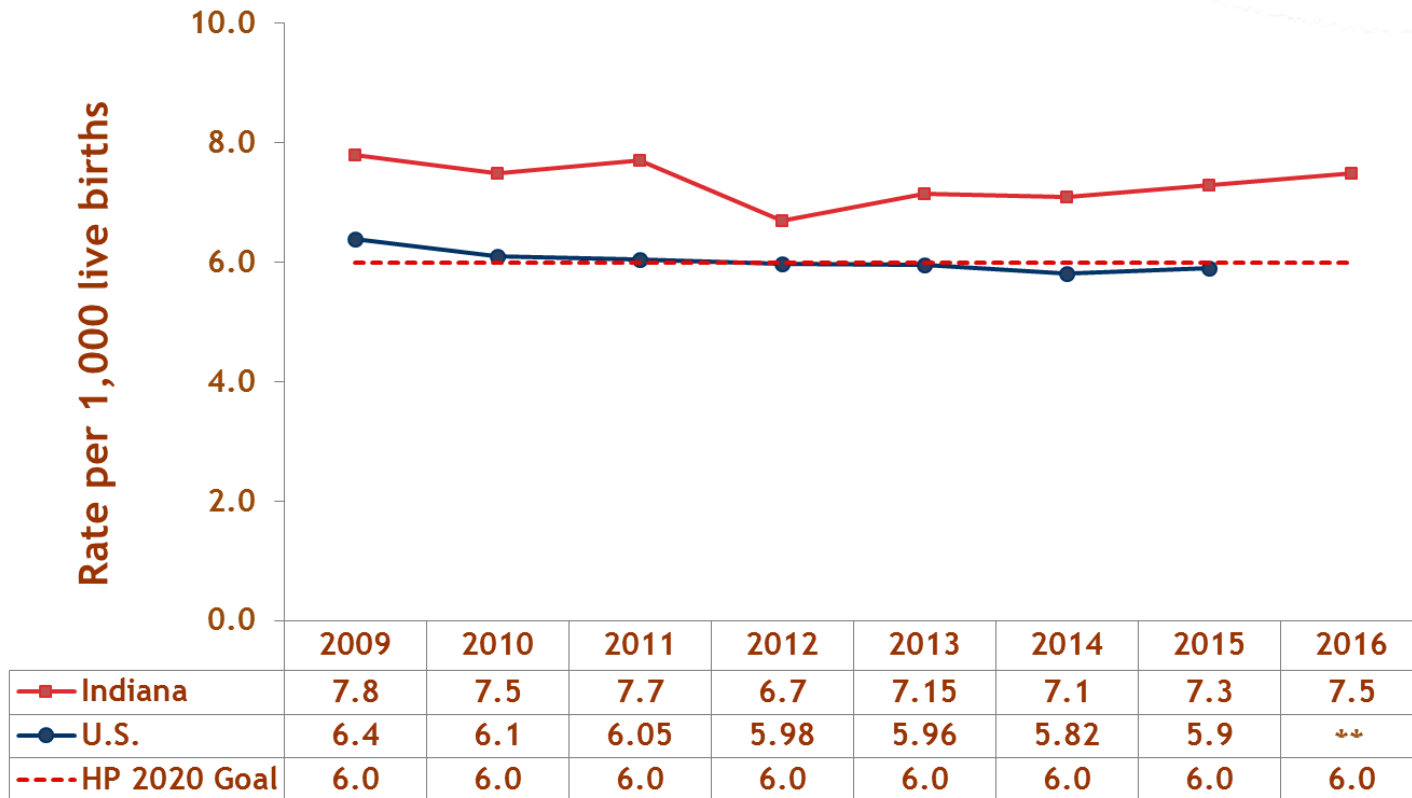
The death of a baby before his/her first birthday

The Infant Mortality Rate (IMR) is an estimate of the number of infant deaths for every 1,000 live births

Large disparities in infant mortality in Indiana and the United States exist, especially among race and ethnicity

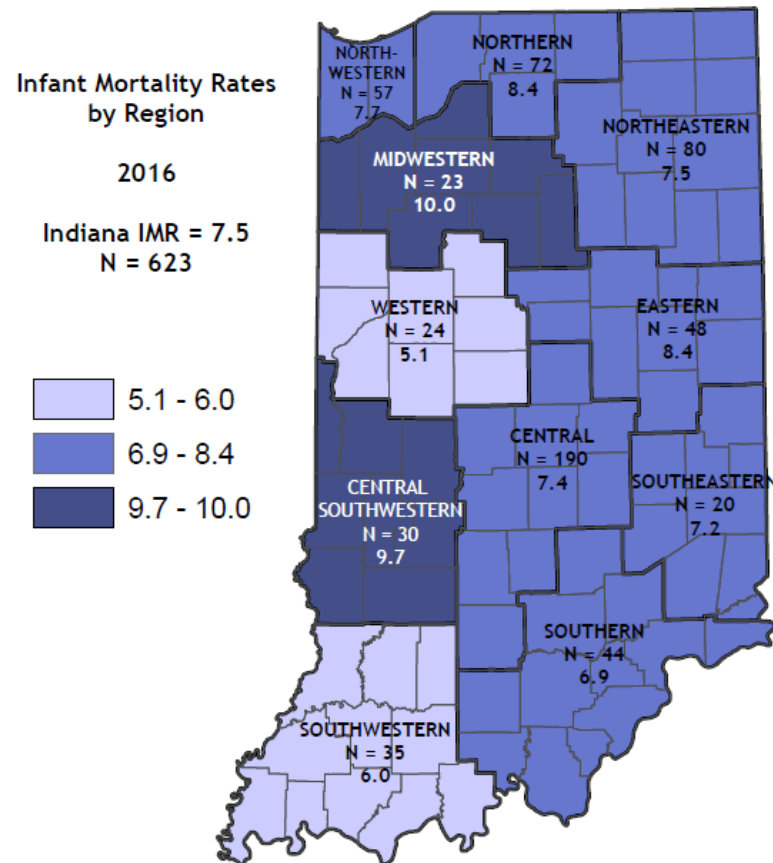**Infant Mortality is the #1 indicator of health status in the world**

Infant Mortality Rates
Indiana, U.S. & Healthy People
2020 Goal, 2009 - 2016

	2009	2010	2011	2012	2013	2014	2015	2016
■ Indiana	7.8	7.5	7.7	6.7	7.15	7.1	7.3	7.5
● U.S.	6.4	6.1	6.05	5.98	5.96	5.82	5.9	↴↴
--- HP 2020 Goal	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0

Infant Mortality Rates by Region
All Races, 2016

Source: Indiana State Department of Health, Division of Maternal and Child Health
Created: December 14, 2017
Data Source: Indiana State Department of Health, Epidemiology Resource Center, Data Analysis Team
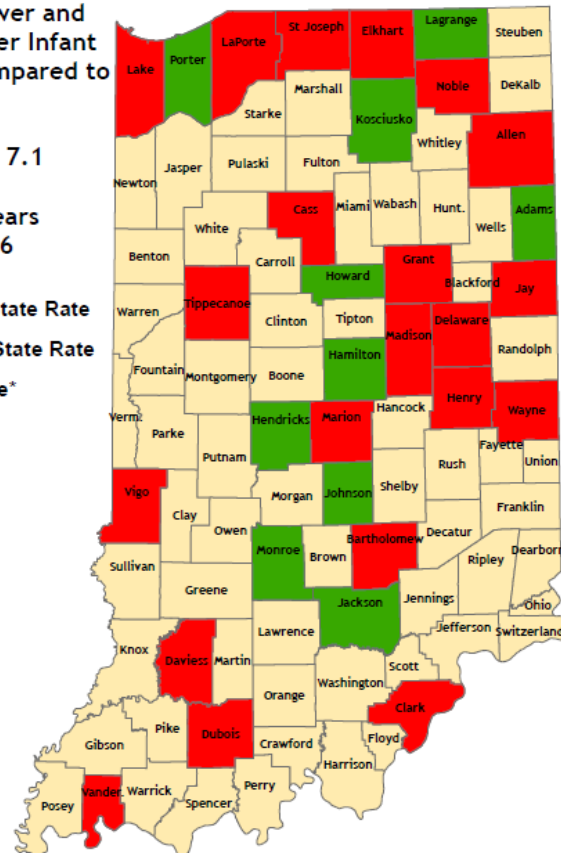
Infant Mortality Rates by County
All Races, 2012 – 2016

Counties with Lower and Counties with Higer Infant Mortality Rates Compared to Indiana

Indiana IMR = 7.1

Aggregated Years 2012 - 2016

Lower than State Rate
Higher than State Rate
Unstable Rate*

*Numberator less than 20, the rate is unstable
Source: Indiana State Department of Health Division of Maternal and Child Health
Created: January 16, 2018
Data Source: Indiana State Department of Health Epidmiology Resource Center Data Analysis Team
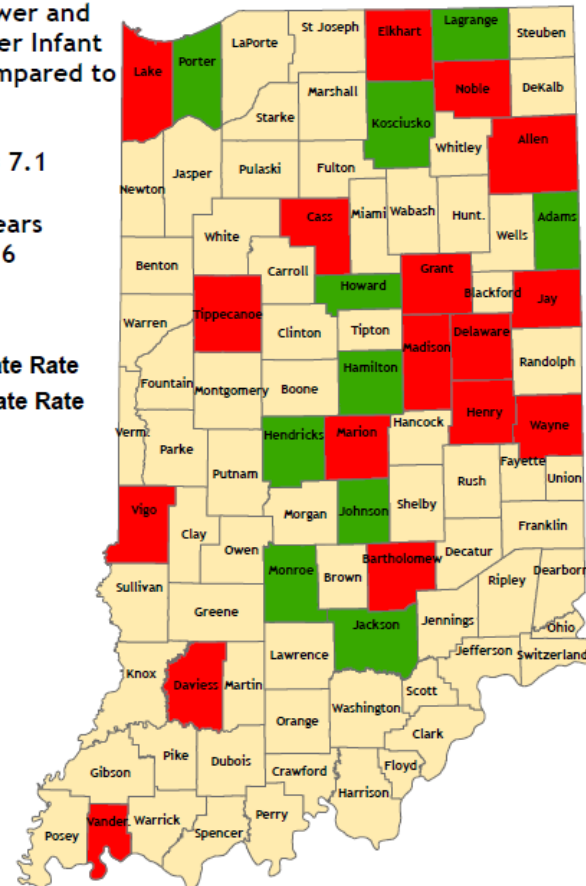
HIGHEST Infant Mortality Rates in Indiana

- Jay, 13.7
- Cass, 10.1
- Grant, 9.6
- Bartholomew, 9.3
- Wayne, 9.0
- Delaware, 8.5
- Lake, 8.4
- Marion, 8.4
- Dubois, 8.3
- Henry, 8.3
- St. Joseph, 8.2
- LaPorte, 8.0

Counties with Lower and Counties with Higer Infant Mortality Rates Compared to Indiana

Indiana IMR = 7.1

Aggregated Years 2012 - 2016

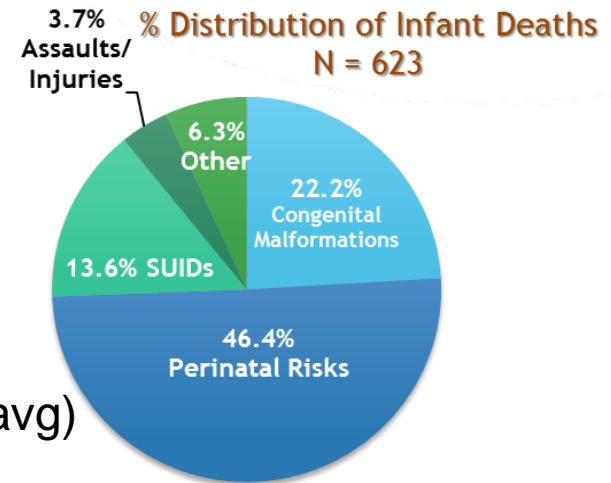Lower than State Rate
Higher than State Rate

Source: Indiana State Department of Health Division of Maternal and Child Health
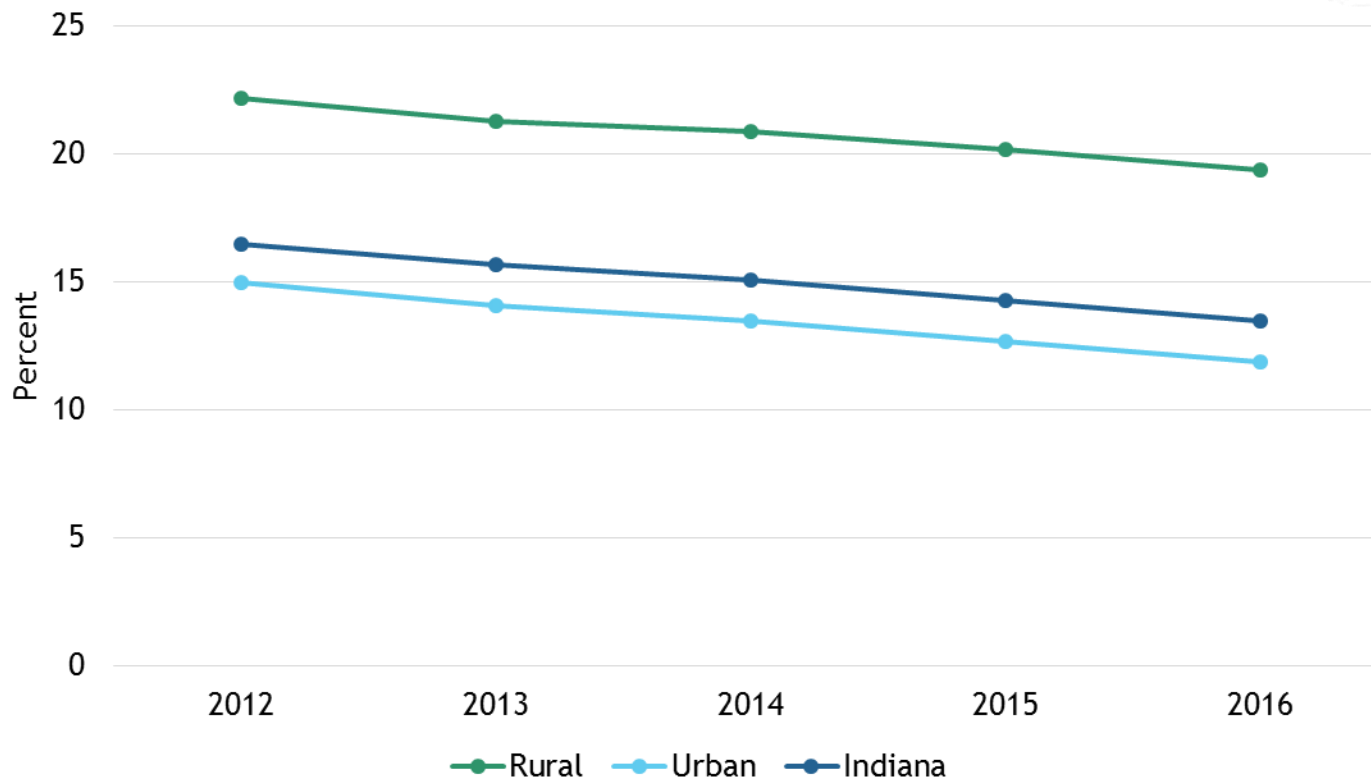Created: January 2, 2018
Data Source: Indiana State Department of Health Epidmiology Resource Center Data Analysis Team

Factors Contributing to Infant Mortality

- Obesity
  - Obese=25% chance prematurity
  - Morbidly Obese= 33% prematurity
  - Indiana is 10th most obese state in US

- Smoking
  - 13.4% pregnant mothers smoke (2 x US avg)

- Limited prenatal care
  - Only 69.4% pregnant IN women receive PNC in 1st trimester (2016)
- Limited breastfeeding
- Elective deliveries before 39 weeks gestation
- Delivering at risk-appropriate facilities
- Unsafe sleep (13.6% of deaths 2016)

% Distribution of Infant Deaths
N = 623

- 3.7% Assaults/Injuries
- 6.3% Other
- 22.2% Congenital Malformations
- 13.6% SUIDs
- 46.4% Perinatal Risks

Smoking During Pregnancy Urban v. Rural Counties Indiana 2012-2016

Smoking During Pregnancy, 2016
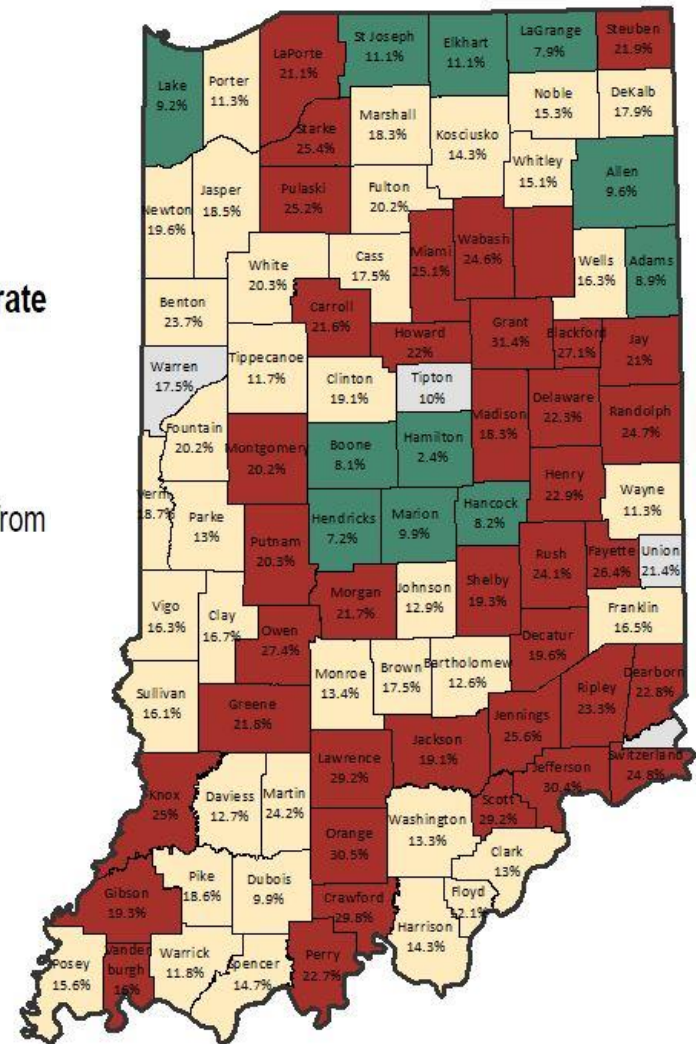
Indiana statewide:
13.5%

Medicaid-insured mothers:
23.4%

County range:
2.4% - 31.4%

39 counties (42%) have rates significantly higher than the statewide rate.

Comparison to statewide smoking during pregnancy rate

- Significantly lower than statewide rate
- Not significantly different from statewide rate
- Significantly higher than statewide rate
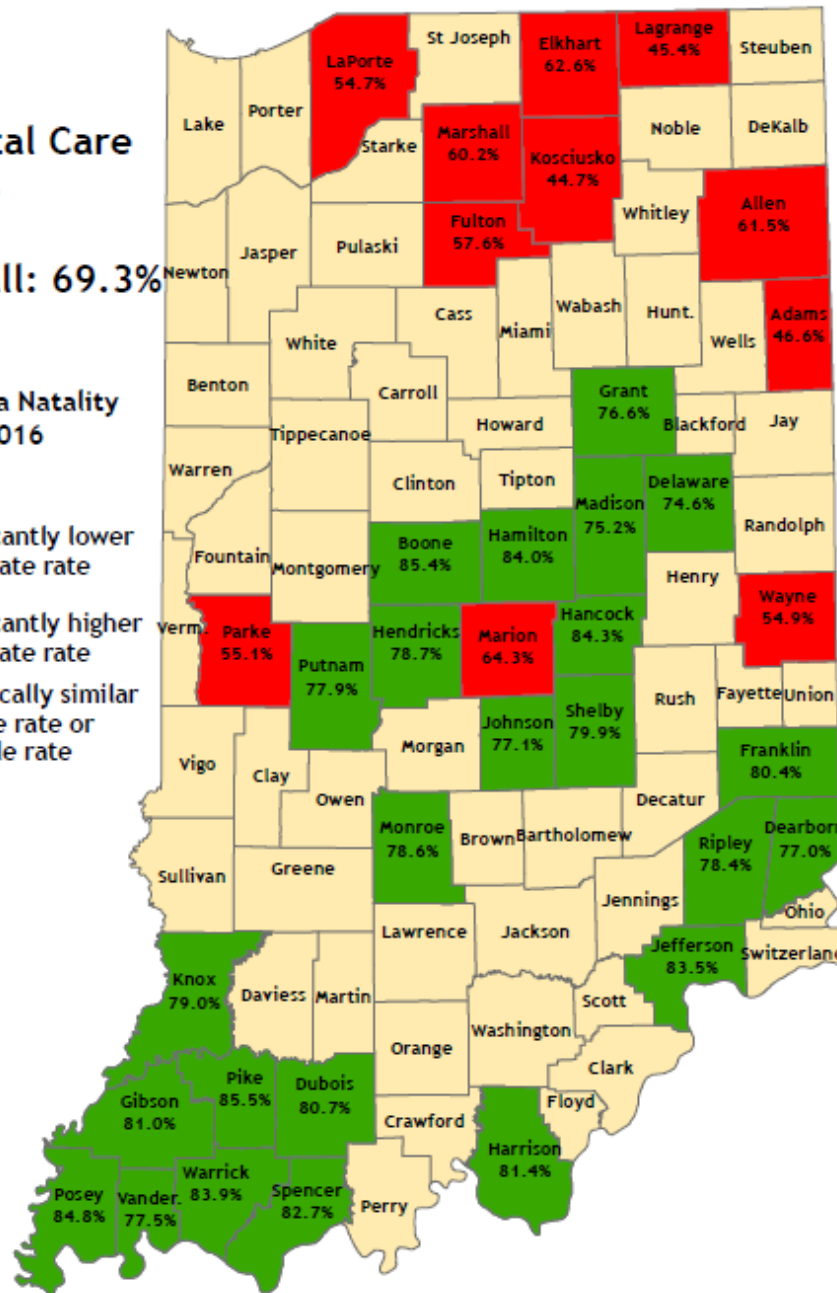- Unstable rate

Early Prenatal Care 2016

Indiana Overall: 69.3%

Source: Indiana Natality Report 2016

Significantly lower than state rate

Significantly higher than state rate
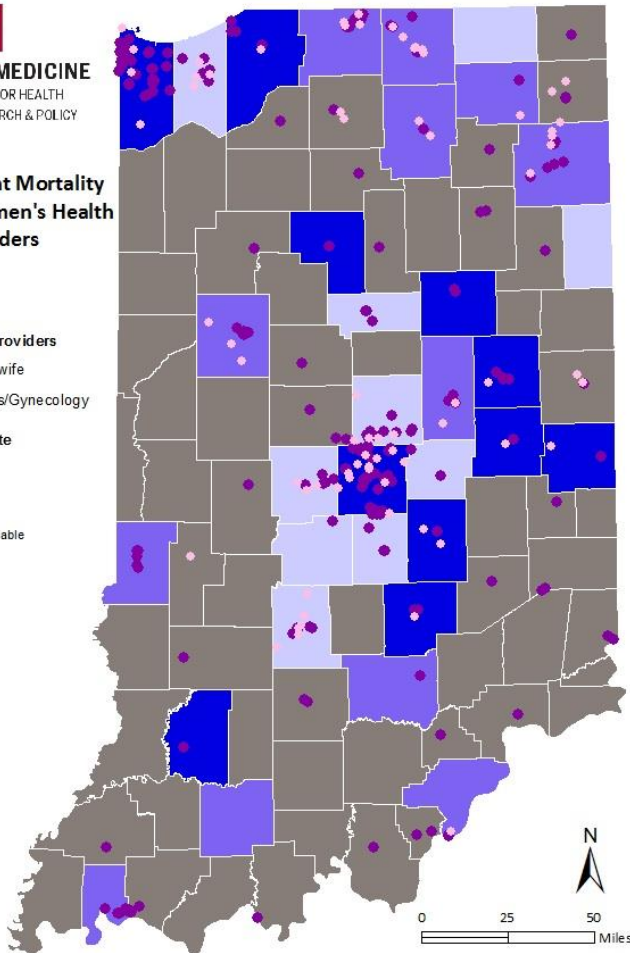
Statistically similar to state rate or unstable rate

Indiana Infant Mortality Rate and Women's Health Providers

Women's Health Providers
- Nurse Midwife
- Obstetrics/Gynecology

Infant Mortality Rate
- 4.1 - 6.3
- 6.4 - 8.1
- 8.2 - 10.7
- No Data Available

Source: Indiana State Department of Health Epidemiology Resource Center, 2015; Indiana Registered Nurse Re-Licensure Survey, 2015; Indiana Primary Care Needs Assessment, 2015
Notes: County location of Obstetrics & Gynecology providers is based on verified primary practice addresses. Location of Nurse Midwives is based on license address. Counties with no available Infant Mortality Rates had suppressed or unstable data due to small numbers.

Indiana Infant Mortality Rate and Obstetrics & Gynecology Population to Provider Ratio

Infant Mortality Rate
- 4.1 - 6.3
- 6.4 - 8.1
- 8.2 - 10.7
- No Data Available

Population to Obstetrics & Gynecology FTE
- 2,772.5 - 15,148.8
- 15,148.9 - 29,728.8
- 29,728.8 - 48,776.0
- 48,776.1 - 77,114.4
- 77,114.5 - 328,350.0

Source: US Census Bureau, ACS 5-year estimates, 2015; Indiana Primary Care Needs Assessment, 2015
Notes: Population to Provider Ratio cannot be calculated in counties with no reported FTE. Counties with no available Infant Mortality Rates had suppressed or unstable data due to small numbers.

SCHOOL OF MEDICINE
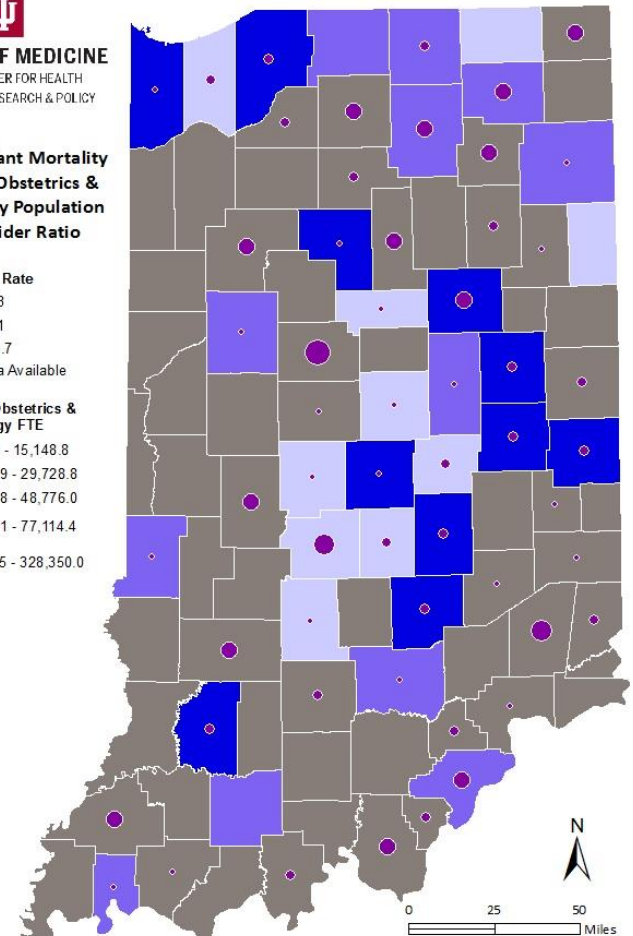BOWEN CENTER FOR HEALTH
WORKFORCE RESEARCH & POLICY

Indiana Infant Mortality Rate and Nurse Midwife Population to Provider Ratio

Infant Mortality Rate
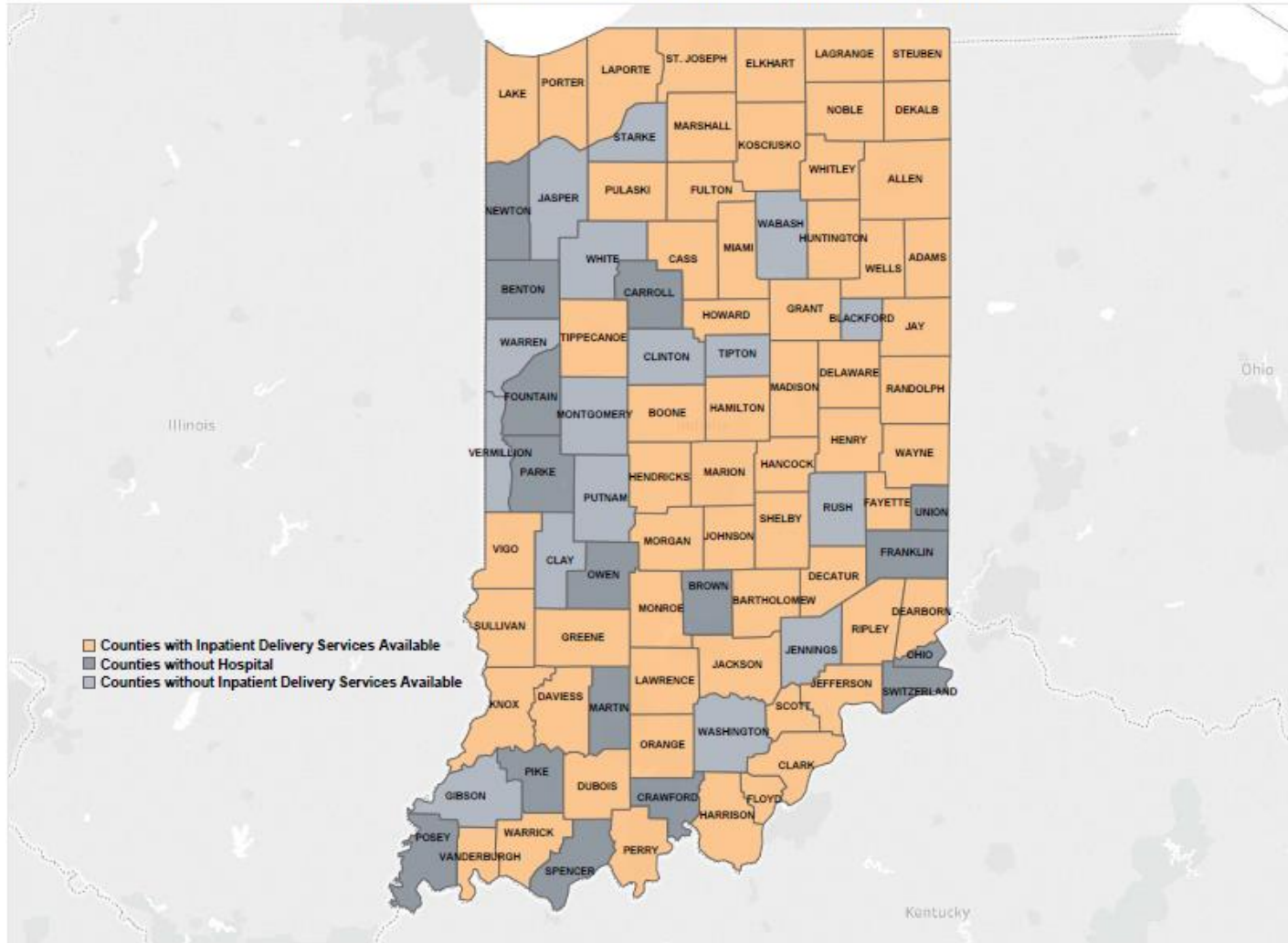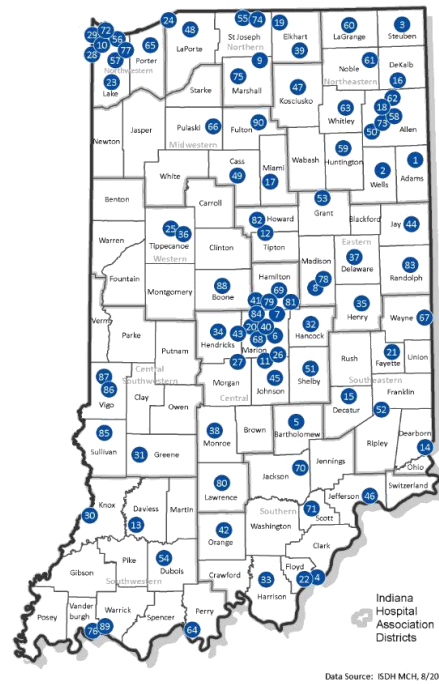- 4.1 - 6.3
- 6.4 - 8.1
- 8.2 - 10.7
- No Data Available

Population to Nurse Midwife FTE
- 12,798.0 - 22,220.5
- 22,220.6 - 48,251.9
- 48,252.0 - 97,508.9
- 97,509.0 - 129,367.4
- 129,367.5 - 222,560.0

Source: US Census Bureau, ACS 5-year estimates, 2015; Indiana Registered Nurse Re-Licensure Survey, 2015
Notes: Population to Provider Ratio cannot be calculated in counties with no reported FTE. Counties with no available Infant Mortality Rate's had suppressed or unstable data due to small numbers.

Inpatient Hospital Obstetric Services by Indiana County

Counties with Inpatient Delivery Services Available
Counties without Hospital
Counties without Inpatient Delivery Services Available

# Perinatal Levels of Care

Location of birthing hospitals
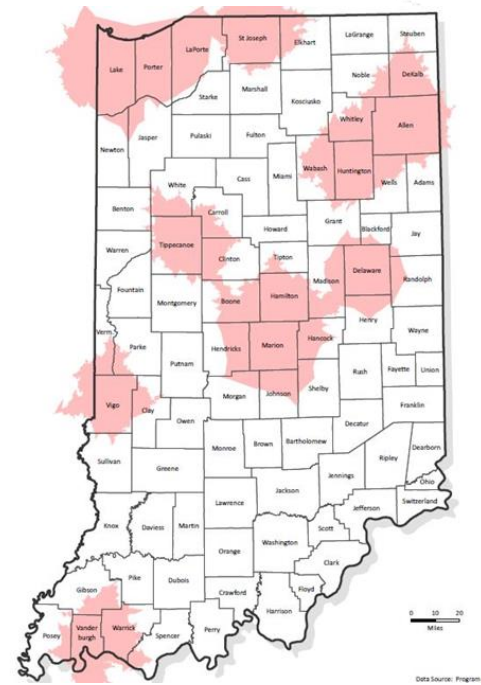
Identifies 30 minutes service areas of Level 3 birthing hospitals. Level 3 facilities are the most equipped to care of at-risk babies.

Infant Mortality: Indiana's Plan

- Governor Holcomb's charge: Have lowest rate in Midwest by 2024
- How we get there:
  - Perinatal Levels of Care
  - Obstetrical care/coordination
    - HIP 2.0
    - Nurse Family Partnership
    - Paramedicine
    - Community Health Workers
  - LARC
  - Progesterone
    - One preterm birth is predictor of another
    - I.M. progesterone 16-24 weeks
    - Vaginal progesterone
  - Safe Sleep education
    - Cribs for Kids
    - Direct On-Scene Education (DOSE) training for first responders
  - Improve health of moms by decreasing obesity & smoking
  - Liv pregnancy mobile app
  - Safety PIN grants

Adult Current Smoking Prevalence by State

2016 Behavioral Risk Factor Surveillance System

West Virginia — 24.8

Indiana — 21.1 (10th highest)

Utah — 8.8

Percent
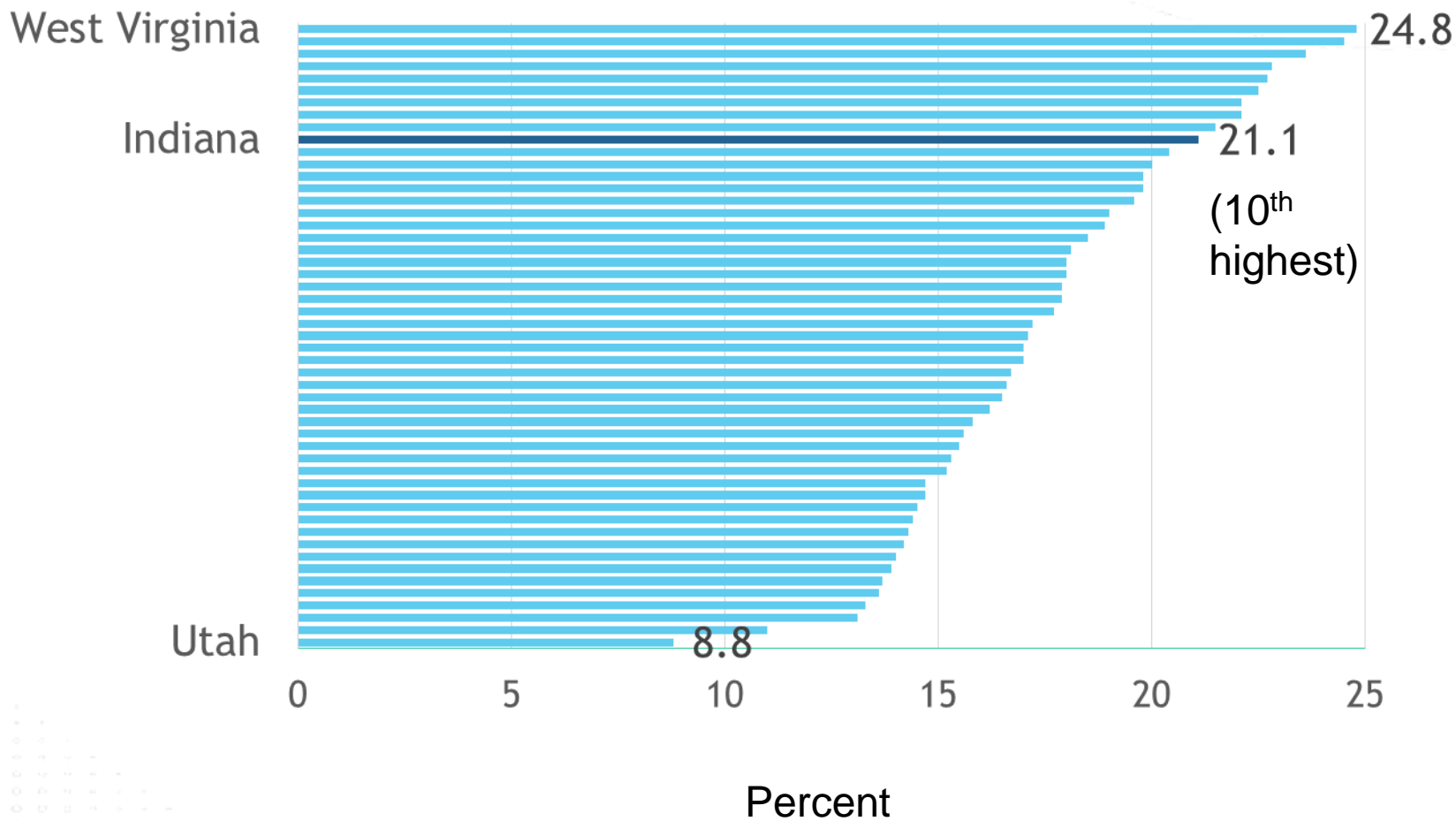
Burden of Tobacco Use in Indiana

- Single most preventable cause of death and disease

- 11,100 Hoosier lives lost due to tobacco use every year

- Nearly $3 billion spent annually in medical expenditures; $3.1 billion in lost productivity

- Everyone shares in the costs for smoking - at $920 per Hoosier household per year

- For every pack of cigarettes sold in Indiana, it spends $15.90 in health care costs, lost productivity and premature death related to tobacco

$15.90

1-800-QUIT NOW
Indiana's Tobacco Quitline

Baby & me™
Tobacco Free

➤Quit rate of 72%*

❖ Core program components:
- ❑ Provides 4 prenatal sessions
- ❑ Monthly postpartum visits

❑ Provides **FREE** diapers:
- ❑ Postpartum for up to one year
- ❑ Tested at every visit with CO monitor

Current Disease Focuses

- Hepatitis A
  - Indiana outbreak: 138 outbreak-related cases as of June 15
  - Typically see 20 cases/year in Indiana. Total cases so far this year: 192, with 47% hospitalized.
  - Links to large outbreaks in Louisville, KY, Michigan
  - Fecal-oral transmission
  - ISDH has worked with priority counties to ensure that vaccine is available for high-risk populations
    - Jails
    - Homeless shelters
    - MSM
  - Currently impacted Tier 1 counties: Clark, Floyd, Harrison, Lawrence, Scott, Washington

Protecting Indiana's Health: Final Thoughts

- No one entity can do it alone.

- We need partnerships at the local, state and federal levels.

- Think outside of the box.

- Know what other states are doing.

- Share your innovations.

- Don't be afraid to ask questions or ask for help.