COMMISSION ON IMPROVING THE STATUS OF CHILDREN IN INDIANA

September 17, 2014

AGENDA

- Welcome
- Approval of Minutes from the July 16, 2014

INFANT MORTALITY AND CHILD HEALTH TASK FORCE

Jane A. Bisbee, Co-Chair, Deputy Director for Field Operations, Indiana Department of Child Services; and Art Logsdon, Co-Chair, Associate Commissioner, Health and Human Services Commission, Indiana State Department of Health

INFANT MORTALITY AND CHILD HEALTH, INDIANA STATE DEPARTMENT OF HEALTH

William C. VanNess, Jr., M.D., State Health Commissioner, Indiana State Department of Health; Deana Haworth, Senior VP & Director of Account Services, Hirons & Co.; Maureen Greer, Indiana Perinatal Quality Improvement Collaborative and Emerald Consulting; Maria Del Rio Hoover, M.D., Newborn Services, St. Mary's Hospital for Women and Children

Reducing Infant Mortality in Indiana

William C. VanNess II, MD
State Health Commissioner

Indiana State Department of Health

Indiana State Department of Health-Top Priorities

#1. Reduction in Infant Mortality rates

#2. Reduction in Adult Obesity rates

#3. Reduction in Adult Smoking rates

Indiana State Department of Health

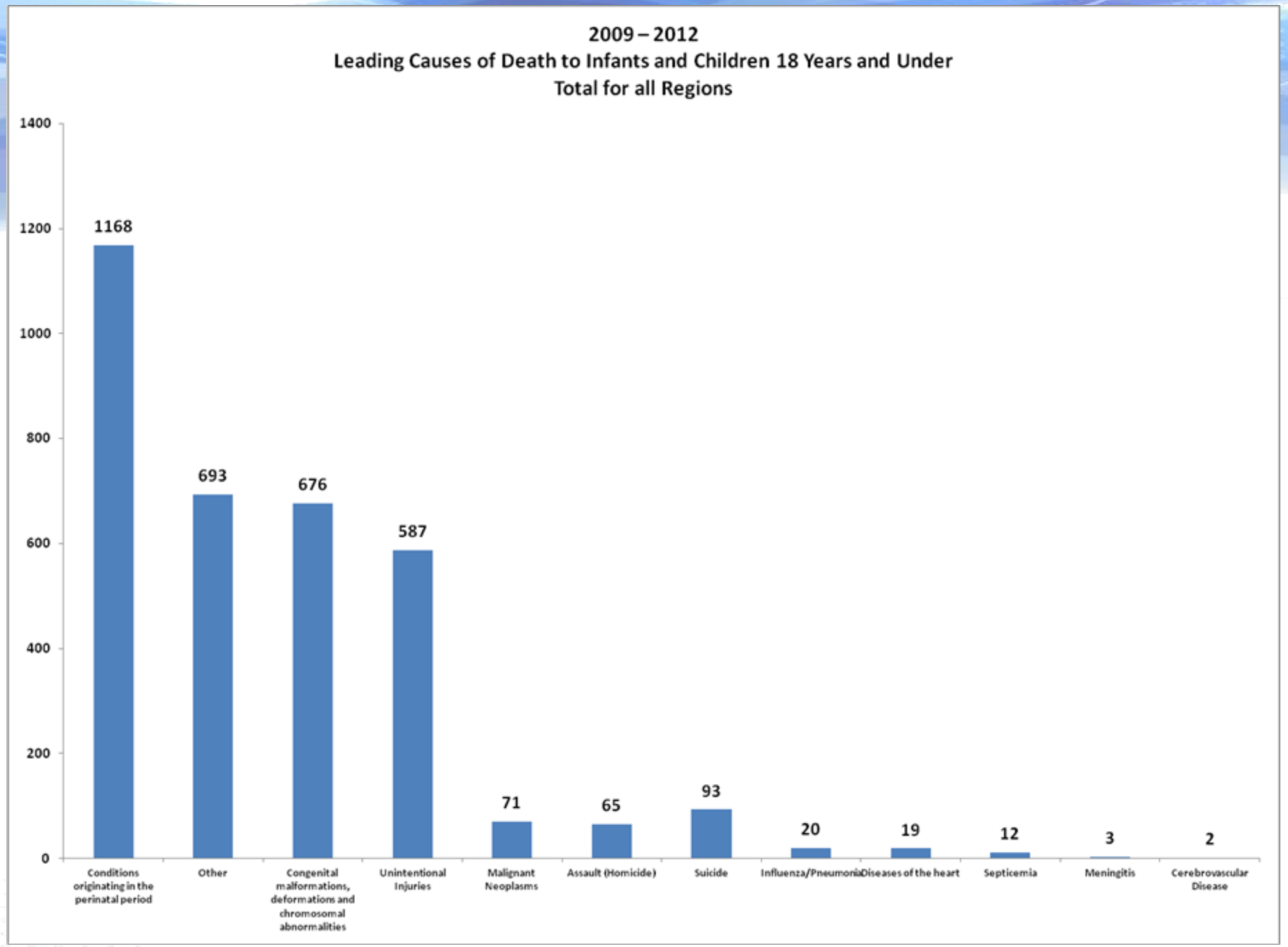
Good to Great 2013-Top Priorities

- **Reduce Infant Mortality (#1 priority)**
  Defined as the death of a baby before first birthday
  Infant Mortality Rate (IMR) is an the number of infant deaths for every 1,000 live births
- ***Infant Mortality is the #1 indicator of health status in the world!***
- ***Indiana:***
  - In 2011 IN had ***7.7*** deaths/1000
    - Indiana was **45th** worst out of 51 states (includes DC) in 2011
    - Prior to 2011 data, ***Indiana only <7.0 once in 114yrs!!***
      - 6.945 in 2008
    - IN has been consistently one of the worst in USA
  - In 2012, Indiana had **6.7** deaths/1000!!!
    - May be an anomaly?

Indiana State Department of Health

Indiana top 5 causes of IM in 2012 (556 deaths)

1. **Perinatal Risks=46.4% (258 deaths)**
   - Examples include:
   - Pre-term (< 39 weeks)
   - LBW (< 5# 8 oz)
   - VLBW, (< 3# 5 oz)
2. **Congenital malformations=*23.6%* (131)**
3. **SIDS/Accidents=*14.2%* (79)**
   - **SIDS=47**
   - **accidental suffocations=28**
   - other accidents= 4
4. **Assault/Neglect=*1.3%* (7)**
5. **All Other=*14.6%* (81)**


2009 – 2012
Leading Causes of Death to Infants and Children 18 Years and Under
Total for all Regions
1400
1200
1000
800
600
400
200
0
1168
693
676
587
71
65
93
20
19
12
3
2
Conditions originating in the perinatal period
Other
Congenital malformations, deformations and chromosomal abnormalities
Unintentional Injuries
Malignant Neoplasms
Assault (Homicide)
Suicide
Influenza/Pneumonia
Diseases of the heart
Septicemia
Meningitis
Cerebrovascular Disease

Factors in Indiana

- **Prematurity & Low Birth Weight Causes**
  - Smoking (ISDH #3 priority)
    - 16.5% pregnant mothers smoke
    - 30% Medicaid Moms smoke!!!
    - Indiana in 2011 had 6th highest smoking rate in US @ 25.6%
      - 2013 had decreased to 21.9%!!
  - Obesity (ISDH #2 priority)
    - Obese=25% chance prematurity
    - Morbidly Obese= 33% prematurity
    - Indiana in 2011 was 8th most obese state in US
  - Elective deliveries before 39 weeks gestation

Indiana State Department of Health

Racial/Ethnic

- Black IM
  - 2006 was ***18.1***deaths/1000
    - Probably was highest in USA!!
  - 2011 was 12.3 deaths/1000
  - 2012 was ***14.5*** deaths/1000!!!

- White IM
  - 2008 was 5.5 deaths/1000
  - 2011was 6.9 deaths/1000
  - 2012 was 5.5 deaths/1000

Factors in Indiana (cont'd)

- **Limited Prenatal Care**
  - Only 68.4% pregnant mothers in Indiana receive PNC in 1st trimester
- **Unsafe Sleep**
  - 2012….Accidental suffocations=28 (5% of all deaths!)
- **Socio-economic**
  - *Poverty*
    - Can affect access to prenatal care
    - Lower income people tend to smoke more which is a leading cause of LBW and prematurity
    - Tend to have less safe sleeping environments which can lead to more suffocations. e.g., co-sleeping with parent
- **Limited breastfeeding in Indiana**
  - Breastfeeding at hospital discharge was 75.6% in 2012
  - Every day after Mom/Baby leaves the hospital, the number tends to decrease

Indiana State Department of Health

Indiana State Department of Health-Initiatives

- **Birth certificate bill**
  Per House Bill 1358, the timeframe in which to submit a birth certificate in Indiana has been reduced from 4 years to 1 year.

- **Medicaid 'hard stop' policy on preventing elective deliveries prior to 39 weeks**
  As of July 1, 2014, Medicaid no longer reimburses for early elective deliveries prior to 39 weeks

- **Neonatal Abstinence Syndrome (NAS) bill**

Indiana State Department of Health

Indiana State Department of Health-Initiatives (cont'd)

- **Institutional remedies to help save Hoosier babies**

  Development of the Indiana Hospital Standards for certification of OB & NICUs to ensure they are meeting *ALL* requirements to provide risk-appropriate care

- **Grantees**

  ISDH MCH is funding 11 infant mortality grantees, 14 prenatal care coordination grantees, and 8 *"Baby and Me-Tobacco Free"* grantees

- **Sustained statewide infant mortality public relations campaign**

  PR Consultant, Hirons and Company, has been hired to create and implement a PR campaign through December, 2015

- **Learn from areas/regions/states that have been successful in improving their infant mortality**
  - Share with regional coalitions
  - Wabash Valley Healthy Moms and Babies

Indiana State Department of Health

Indiana State Department of Health-Initiatives (cont'd)

- **Safe Sleep Program**

  - Since summer of 2013, ISDH has worked collaboratively with Department of Child Services' Permanency Program regarding safe sleep

  - The program is now housed at ISDH with our new Safe Sleep Coordinator, who will:

    - oversee the Cribs for Kids distribution program and

    - all statewide safe sleep education and outreach

Indiana State Department of Health

Indiana State Department of Health-Initiatives (cont'd)

- **Breastfeeding state strategic plan**
  - Being developed by National Institute for Children's Health Quality (NICHQ)
  - Collaboration between ISDH MCH, WIC, DNPA, Chronic Disease, and Women's Health
  - Encourage hospitals to become certified as *"Baby Friendly"* by the World Health Organization to increase breastfeeding

- **Home Visiting**

  Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program provides over $9 million a year through October 2016 to two organizations:
  - Department of Child Services (DCS) for their Healthy Families home visiting program
  - Goodwill Industries of Central Indiana for their Nurse Family Partnership (NFP) home visiting program

Indiana State Department of Health

Save the Date: 2014 Infant Mortality Summit

Thursday, November 13th
8:00am-5:00pm
Indiana Convention Center and Lucas Oil Stadium
100 South Capitol Avenue
Indianapolis, IN 46225

Indiana State Department of Health

Thanks

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(317) 233-7400

Indiana State Department of Health


HIRONS

ISDH Infant Mortality Campaign

The Indiana State Department of Health (ISDH) is taking action to increase healthy pregnancy and post-pregnancy behavior by women of childbearing age, especially among minority groups and underserved communities.

ISDH's No. 1 priority is to decrease the infant mortality rate by addressing the factors that contribute to low birth-weight babies and infant death before the first birthday.

Goals:

- Raise awareness of the problem of infant mortality in Indiana and encourage support for education and prevention efforts.
- Promote the existence and role of ISDH’s program as a driver of efforts to reduce infant mortality in the State of Indiana.
- Educate Hoosiers that everyone has a role to play to ensure our babies reach their first birthdays.

HIRONS

Research Methodology

- Environmental Scan
- Focus Group Testing
- Quantitative Benchmark

Environmental Scan

Hirons conducted a nation-wide scan of other campaigns and best practices. One common approach in other state-wide campaigns is to focus on a single issue or message, consistent with the proposed state-wide omnibus campaign.

Texas

- Strategy: To reduce the infant mortality rate by offering resources for expectant parents and women who may become pregnant.
- Results: In 2011, there was a major decline in infant deaths in Texas, which allowed the state to exceed the HP2020 goal.
  Provisional 2012 data suggests that this low infant mortality rate has persisted.

March of Dimes

- Strategy: Focuses on interventions and activities that have the potential to make an immediate, substantial and measurable impact on preterm birth.
- Results: 2012 data marked a six-year decline in the preterm birth rate to 11.5 percent in the United States.

Focus Group Details

Hirons conducted six focus group discussions on the planned infant mortality advertising campaign.

Two focus groups were held in each of the following cities:

- Indianapolis –middle and upper income/suburban
- Jasper – low income/rural
- Gary – low income/urban

One group in each city consisted of expectant mothers and mothers with young children. The other group was a general population sample.

In total, 56 respondents participated in these 6 discussions.

Focus Group Results

Focus group participants were fairly aware of the behaviors they should be adopting in order to stay healthy during pregnancy.

- While most participants knew a pregnant mother shouldn't smoke, some of the mothers in the focus groups said they had not been able to stop smoking.
- There was some debate about the advisability of a pregnant woman drinking alcohol, with many participants saying their doctors advised moderation.
- Most were aware of the importance of regular doctor visits during pregnancy. The basis on which many women say they chose a hospital are not medically-based but instead are customer service oriented.
- There is confusion about the number of weeks a pregnancy should last, with many young mothers believing 37 weeks is sufficient.

Healthy behaviors to ensure that infants thrive in their first year are less well-known.

- While participants acknowledged being told the importance of breastfeeding, many mothers said they struggled nursing and adopted the "do it if you can" attitude.
- Several mothers said they sleep with their children and seemed unwilling to change the behavior as it is convenient and emotionally satisfying. There is a great fear of Sudden Infant Death Syndrome but participants were not clear on what to do to avoid the danger of SIDs and suffocation risks.

Quantitative Findings

An online survey was conducted over the course of 15 days to provide a benchmark of Indiana residents' awareness and impressions about the behaviors necessary to have a healthy baby.

On an unaided basis:

- 25% of respondents were aware of Indiana's infant mortality crises.
- 23% of respondents identified breastfeeding as important.
- 5% identified safe sleep techniques as important.
- 46% say they have seen some advertising on the issues of safe sleeping, smoking while pregnant and breastfeeding.

Quantitative Findings

- WIC participants were significantly more likely to have changed to healthy behaviors during pregnancy and after the birth of their child than others responding to this survey.
- Most respondents believe that, “Everyone has a role in keeping out babies healthy.”
- 58% of respondents said that all mothers should be urged to breastfeed.

Campaign Strategy

- “Omnibus” campaign to educate all Hoosiers that many of Indiana’s babies are dying before reaching their first birthdays. Statewide efforts will include:
  - Television (broadcast and cable)
  - Radio
  - Digital (online, mobile, video and tablet)
  - Transit
  - Ethnic media

- Focused campaigns on specific issues will be targeted toward identified audiences, addressing behaviors that heavily contribute to infant mortality. Outreach efforts include:
  - Smoking cessation
  - Drug Abuse (prescription and street drugs)
  - Elective early deliveries
  - Safe sleep
  - Breastfeeding
  - Level of hospital care

Labor of Love

Helping Indiana Reduce Infant Death

CONNECT WITH US

Home | Health Care Providers | About | Resources | Get Involved

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Helping Indiana Reduce Infant Death

LATEST TWEET

Labor of Love date
@laboroflove

Id maiosam eatus, imagnatem aut optatur, conse volesectaes il et que et et aut est, od modio inctiaesti to quodis ea aut et et, quia quis eicitin isquias ad quis pro volupta tionsedi

Women

Even if you don't want to become pregnant for many years to come, it's important to start taking care of your body now.

LEARN MORE

Expectant Parents

Baby on the way? Give your baby a head start on success by maintaining a healthy pregnancy.

LEARN MORE

New Parents

The first year of your baby's life is a crucial time. Arm yourself with the knowledge to make it a safe one.

LEARN MORE

Stay Connected

Sign up for the Labor of Love newsletter to get advice on how to care for your baby from the first positive pregnancy test to the first birthday.

Name
Email
County – select –
Gender – select –

SIGN UP

Find Support

Connect with support to help you and your baby thrive.

LEARN MORE

I want to...

1. Prepare myself for pregnancy in the future.
2. Find free or low-cost prenatal care.
3. Find advice on how to put my baby to sleep safely.
4. Find help with breastfeeding.
5. Know more about infant mortality causes.

Commonly Asked Questions

1. What is infant mortality?
2. What causes babies to die within the first year, and how can I prevent it?
3. What kinds of support is out there for me?
4. How can dads and other family members help?

More FAQs

Indiana has one of the highest infant death rates in the country.

Your actions do make a difference.

www.LaborofLove.in.gov or call 211 to learn more.

Labor of Love

643 babies died before reaching their 1st birthday.

Your actions do make a difference.

www.LaborofLove.in.gov or call 211 to learn more.

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One baby dies
approximately every
13 hours
in Indiana.
Your actions do make a difference. Visit www.LaborofLove.in.gov or call 211 to learn more.
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Helping Indiana Reduce Infant Death

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Indiana has one of the highest infant death rates in the country. We can do better. Visit **www.LaborofLove.in.gov** or **call 211** to learn more.

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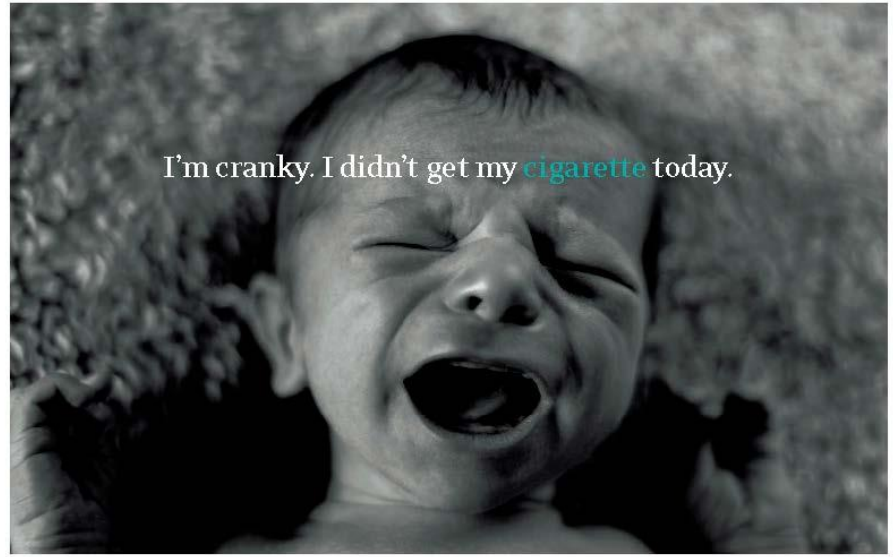

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Institutional Remedies To Improve Our Ability To Save Hoosier Babies

To improve outcomes for high-risk pregnant women and newborns:

- Create a certification process that establishes consistency in the Level of Care designation for all birthing hospitals;
- Implement standards for maternal –fetal and neonatal inter-facility transport; and
- Establish Perinatal Centers of Excellence that build on existing hospital networks and their affiliate hospitals.

Levels of Care Certification

Levels of Care

- In 2004 American Academy of Pediatrics defined levels in three categories:
  - Level I basic care
  - Level II specialty care
  - Level III subspecialty care
- Published literature (1978-2010) demonstrates:
  - Improved outcomes for VLBW infants and infants < 32 weeks gestation who are born in Level III hospitals;
  - VLBW infants born at non-level III hospitals had a 62% increase in odds of neonatal or pre-discharge mortality.
  - The risk of death for VLBW infants born in Level I or II facilities remained higher than those born in Level III facilities

Levels of Care (continued)

- 2012 AAP Guidelines:
  - Level I well newborn nursery;
  - Level II special care nursery;
  - Level III Neonatal intensive care nursery(NICU); and
  - Level IV Regional NICU/subspecialty intensive care
- Healthy People 2020 goal:
  - 83.7% of VLBW babies born in Level III hospital

History

- In October 2010, the Indiana State Department of Health's (ISDH) Division of Maternal and Child Health initiated the Hospital Levels of Care Task Force with the goal "to ensure that higher risk mothers and newborns deliver at appropriate level hospitals".

History (continued)

- Why?
  - High rates of infant mortality, prematurity, and low birth weight in Indiana
  - The Maternal Child Health Bureau of the Health Resources Services Administration *(MCHB/HRSA)* recommends 90% of VLBW babies be born in Level lll nurseries.
  - In 2008, 79% of Indiana VLBW babies were born in a Level lll hospital.
  - In 2011, 68% of VLBW babies in Indiana were born in a Level III hospital.

Guiding Principles

- Achieve the best outcomes for mothers and babies
- Comply with but not exceed AAP and ACOG National Standards
- All standards must be grounded in solid evidence
- Produce a visionary document

Indiana Perinatal Hospital Standards

- Finalized in 2012 and endorsed by the Governing Council in January 2013.
- Aligned with ACOG and AAP Guidelines
- Gap Analysis Survey
  - Developed to be completed by each birthing hospital;
  - 89 of 92 hospitals completed the survey:
    - 88 Obstetric units
    - 89 Neonatal units
  - Hospitals were sent findings with identification of components that were inconsistent with standards.

Self-Reported vs. Assigned Levels of Care – Obstetric Units (N=88)

Self Reported	Adjusted
Level I: 38	Level I: 21
Level II: 32	Level II: 28
Level III: 18	Level III: 5
	Level 0: 34

Number of Unmet Expectations within Revised Obstetric Standards

Self-Reported LOC	Unmet Expectations			
	0	*1*	*2-3*	*4+*
I	16	9	12	1
II	17	4	7	4
III	5	4	4	5
Total	38	17	23	10

Self-Reported vs. Assigned Levels of Care – Newborn Units (N=89)

Self Reported	Adjusted
■ Level I: 31	■ Level I: 22
■ Level II: 32	■ Level II: 26
■ Level III: 24	■ Level III: 4
■ Level IV: 2	■ Level IV: 2
	■ Level 0: 35

Number of Unmet Expectations within Revised Newborn Standards

Self-Reported LOC	Unmet Expectations			
	0	*1*	*2-3*	*4+*
I	11	5	12	3
II	12	9	6	5
III	4	5	4	11
IV	2	-	-	-
Total	29	19	22	19

Low Birthweight and Very Low Birthweight by Level of Care

Birthweight	Total	Level III	Level II	Level I	Unknown	Non-Hospital Births
VLBW	1,289	872	283	66		68
LBW	5,674	2,923	1,732	771	11	237
Death VLBW	308	180	63	60		5
Death LBW	96	54	25	14		3

Birthweight	Total	Level III	Level II	Level I	Unknown	Non-Hospital Births
VLBW	1,289	68%	22%	5%		5%
LBW	5,674	52%	31%	14%		4%
Death VLBW	308	58%	20%	19%		2%
Death LBW	96	56%	26%	15%		3%

Source: 2011 Birth Certificate Data

Inter-Facility Transport

Issues

- Inter-facility transport is a critical component of ensuring risk appropriate care for high risk pregnant women and newborns
- Nationally - Largely unregulated, wide variation including:
  - Staffing;
  - Orientation;
  - Quality assurance activities; and
  - Policies and protocols.
- In Indiana, there are more regulations that govern the transport of animals than the transport of pregnant women and children

Goal:

- Develop standardized procedures for stabilization, consultation and transport of high risk pregnant women and neonates
  - Transport survey
  - Development of standards

Indiana Survey

- Demographics*
  - Four hospitals indicated they have an in-house maternal-fetal transport system
    - All level III OB units
  - Fifteen hospitals indicated they have an in-house neonatal transport system.
    - Two Level IV units
    - Two Level III units
    - Eight Level II units
    - Two Level I units
    - One Level O unit

- Survey looked at:
  - Transport Numbers/Distance Traveled
  - Staffing and Capacity
  - Quality Assurance Activities
  - Training
  - Mortality Assessment

* Assigned level based on perinatal standards gap analysis

Sections	Title
Sec. 1	General Certification
Sec. 2	Maternal Fetal Quality Assurance
Sec. 3	Maternal -Fetal Competencies
Sec. 4	Maternal-Fetal Transport Equipment
Sec. 5	Maternal-Fetal Medication
Sec. 6	Neonatal Quality Assurance
Sec. 7	Neonatal Competencies
Sec. 8	Neonatal Transport Equipment
Sec. 9	Neonatal Medication
Sec. 10	Perinatal Personnel Licensure and Certification
Sec. 11	Perinatal Safety Measures
Sec. 12	Perinatal Policies and Protocols

Perinatal Coordinated Centers of Care

Changing Health Care Environment

- Increasing de-regionalization from a geographic perspective and increasing hospital networks
- Increase in the number of NICUs and Neonatologists;
- Limited availability of maternal-fetal medicine physicians
- Increase of small NICUs in the same region as large NICUs
- Failure to achieve 2010 Healthy People goals of 90% of VLBW infants at Level III facilities

Literature Review

- States with formalized regional programs have:
  - Lower infant mortality rates;
  - Better outcomes
  - Better resource utilization; and
  - Lower cost expenditures
- Short-term measures of quality assurance include:
  - Access equality;
  - Appropriate capacity and staffing;
  - Reduction in inappropriate transfers;
  - Networks that have robust communication and collaboration.
- Long-term measure: improving perinatal mortality and morbidity rates

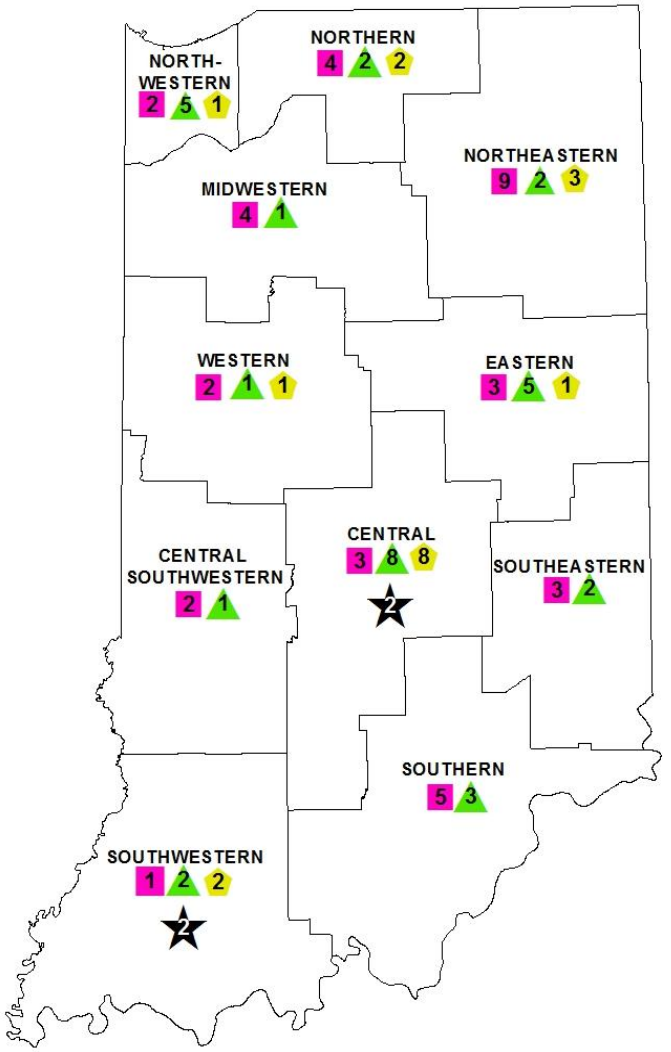
Why Coordinate Perinatal Care?

- Provide risk appropriate, timely care for patients
- Decrease isolation for referring providers
- Decrease maternal, fetal, neonatal morbidity and mortality
- Pool and share resources, reduce redundancy
- Improve perinatal outcomes
- Provide education for affiliate hospitals
- Monitor outcome data for resource allocation

Obstetrical Unit Level of Care by Hospital District

Self-Reported LOC

- Level 0
- Level I
- Level II
- Level III
- In-house Maternal-Fetal Transport

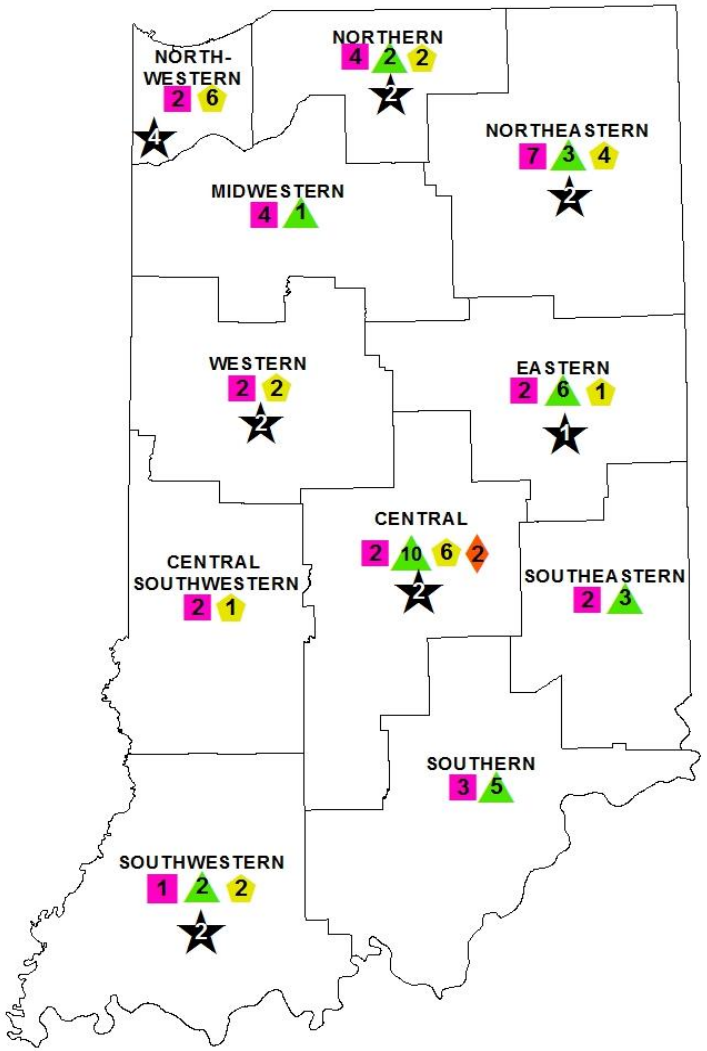


Note: These levels were self-reported on the 2012 Gap Analysis Survey and have not been validated.

Neonatal Unit Level of Care by Hospital District

Self-Reported LOC

- Level 0
- Level I
- Level II
- Level III
- Level IV
- In-house Neonatal Transport



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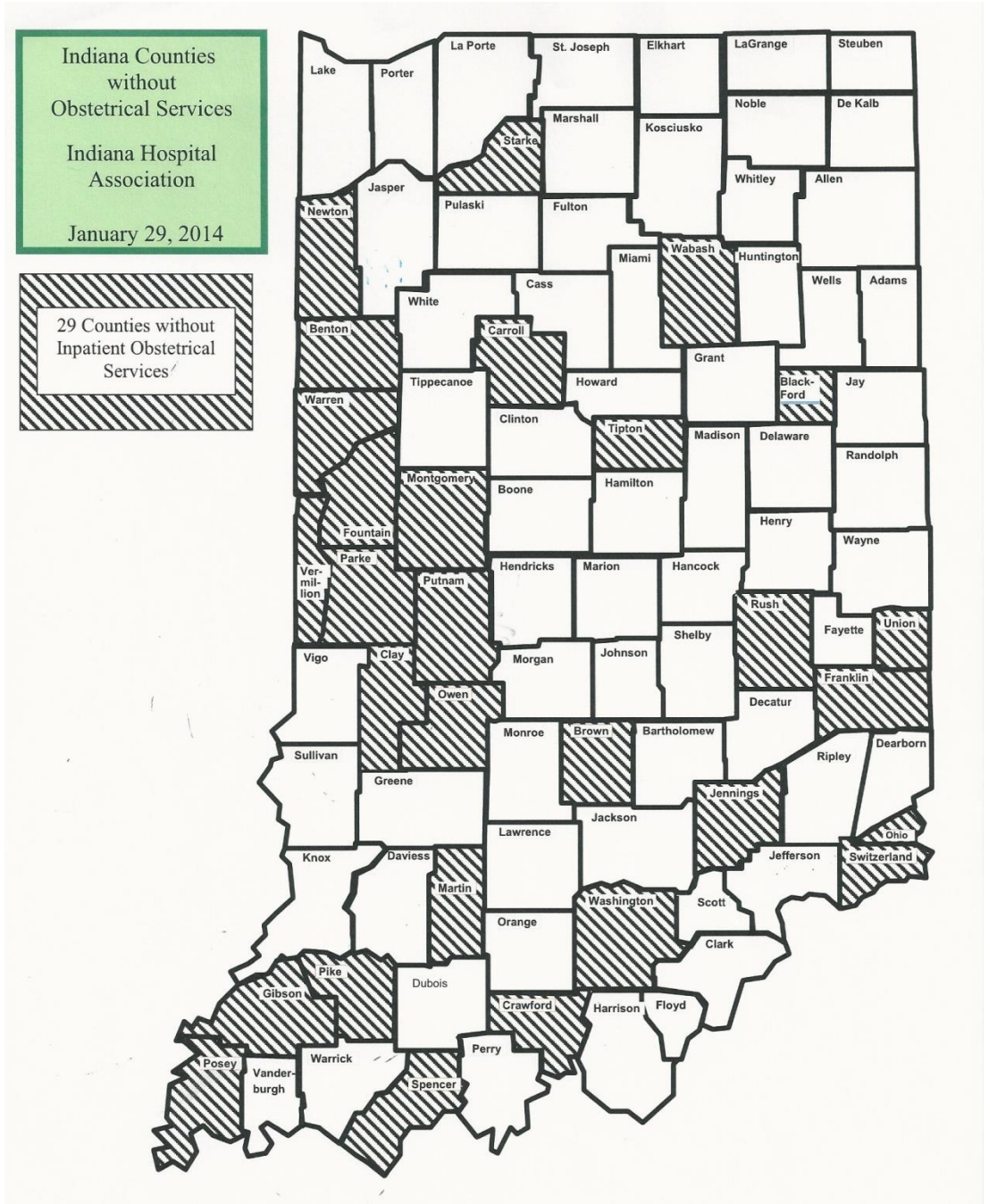

Indiana Counties without Obstetrical Services
Indiana Hospital Association
January 29, 2014
29 Counties without Inpatient Obstetrical Services
Lake
Porter
La Porte
St. Joseph
Elkhart
LaGrange
Steuben
Noble
De Kalb
Marshall
Kosciusko
Starke
Whitley
Allen
Jasper
Pulaski
Fulton
Newton
Wabash
Huntington
Miami
Wells
Adams
Cass
White
Benton
Carroll
Grant
Howard
Black-Ford
Jay
Tippecanoe
Warren
Clinton
Tipton
Madison
Delaware
Randolph
Montgomery
Boone
Hamilton
Henry
Fountain
Wayne
Parke
Ver-mil-lion
Putnam
Hendricks
Marion
Hancock
Rush
Fayette
Union
Vigo
Clay
Morgan
Johnson
Shelby
Franklin
Owen
Decatur
Monroe
Brown
Bartholomew
Dearborn
Sullivan
Ripley
Greene
Jennings
Jackson
Lawrence
Ohio
Knox
Daviess
Martin
Jefferson
Switzerland
Washington
Scott
Orange
Clark
Pike
Dubois
Gibson
Crawford
Harrison
Floyd
Perry
Posey
Vander-burgh
Warrick
Spencer

Perinatal Centers of Excellence

- Lead Facility:
  - Level III Obstetric Unit
  - Level III/IV Neonatal Unit
- Goal
  - Coordinate and develop a system of care with affiliate hospitals
  - Promote high quality, risk appropriate service delivery throughout the system
  - Provide support to affiliate hospitals
  - Ensure that all hospitals in their system have an important role to play in improving infant mortality and morbidity

Roles and Responsibilities

- State and Regional Conferences
- Training for Affiliate Hospitals
- Quality Assurance Measures
- Support Services for Affiliate Hospitals
- Coordination of Maternal-Fetal and Neonatal Back Transports
- Transition to Post-Partum and Inter-Pregnancy Care
- NICU Transition to Home & Follow-up Program
- Develop and Implement Agreements with Affiliate hospitals

"The problem of infant mortality is one of the great social and economic problems of our day. A nation may waste its forest, its water power, its mines and to some degree even its land, but if it is to hold its own…its children must be conserved at any cost. On the physical, intellectual and moral strength of the children of today, the future depends."

-Julia Lathrop, MD, Director, Federal Children's Bureau, 1913

IPQIC
NAS
Task Force

Maria Del Rio Hoover, MD

NAS DEFINITION

A drug withdrawal syndrome that presents in newborns after birth when transfer of harmful substances from the mother to the fetus abruptly stops at the time of delivery Most frequently due to opioid use in the mother, but may also be seen in infants exposed to benzodiazepines, and alcohol.

NAS DEFINITION

Fetal exposure usually occurs for one of three reasons:

- 1. Mothers are dependent/addicted to opioids, either prescribed or illicit.
- 2. Mothers require prescription opioids for another disease process
- 3. Mothers receive methadone therapy to facilitate safe withdrawal from addiction to prescription or illicit opioids.

NATIONAL INCIDENCE

- NAS:
- 2000- 1.20/ 1,000 HOSPITAL BIRTHS/YEAR
- 2009- 3.39/1,000 HOSPITAL BIRTHS/YEAR

- MATERNAL OPIATE USE:
- 2000- 1.19/1,000 HOSPITAL BIRTHS/YEAR
- 2009- 5.63/1,000 HOSPITAL BIRTHS/YEAR

Patrick et al,JAMA,2012

MEAN HOSPITAL CHARGES

NATIONAL COST OF HEALTH CARE FOR INFANTS DIAGNOSED WITH NAS:

- 2000: $190 MILLION
- 2009: $720 MILLION
- DURING THAT TIME FRAME, HOSPITAL STAY FOR NEWBORNS SHORTENED BUT AVERAGE HOSPITAL STAY FOR BABIES WITH NAS STAYED THE SAME.

INDIANA

- INDIANA RANKS 9TH NATIONALLY IN PRESCRIBING RATE PER 100 PERSONS FOR OPIOID PAIN RELEIVERS:
- ALABAMA(1): 142.9/100 PERSONS
- KENTUCKY(4): 128.9/100 PERSONS
- INDIANA(9): 109.1/100 PERSONS
- CALIFORNIA(50): 57.0/100 PERSONS
- US RATE: 82.5/100 PERSONS

CDC, 2014

INDIANA

- INDIANA PRESCRIPTION DRUG ABUSE PREVENTION TASK FORCE
- INDIANA PAIN MANAGEMENT PRESCRIBING EMERGENCY RULES (ADOPTED BY THE INDIANA MEDICAL LICENSING BOARD ON OCTOBER 24, 2013)
- NAS SUBCOMMITTEE OF THE INDIANA PRESCRIPTION DRUG ABUSE PREVENTION TASK FORCE
- ISMA RESOLUTION: IMPROVEMENT OF PREVENTION, SCREENING, AND TREATMENT FOR SUBSTANCE USE AND ABUSE DURING PREGNANCY

INDIANA

SENATE BILL 408:

- DEFINES NAS AS "THE VARIOUS ADVERSE EFFECTS THAT OCCUR IN A NEWBORN INFANT WHO WAS EXPOSED TO ADDICTIVE ILLEGAL OR PRESCRIPTION DRUGS WHILE IN THE MOTHER'S WOMB."
- MANDATES ISDH TO MEET WITH SPECIALISTS AND REPRESENTATIVES OF VARIOUS ASSOCIATIONS TO DEFINE NAS AND DEVELOP PROCESS FOR DATA REPORTING.

INDIANA PERINATAL QUALITY IMPROVEMENT COLLABORATIVE NAS TASK FORCE

- GOAL: Assist the Indiana State Department of health (ISDH) with the completion of the work and report mandated under SEA 408 in order to improve the identification and care of infants with NAS

IPQIC NAS TASK FORCE DELIVERABLES

- Form task force with representative of at least the following associations to study and make recommendations on issues concerning Neonatal Abstinence Syndrome (NAS):
  - 1) The Indiana Hospital Association
  - 2) The Indiana Perinatal Network
  - 3) The Indiana State Medical Association
  - 4) The Indiana Chapter of the American Academy of Pediatrics
  - 5) The Indiana Section of the American College of Obstetricians and Gynecologists
  - 6) The Indiana Chapter of the March of Dimes

IPQIC NAS TASK FORCE DELIVERABLES

- Review national guidelines, current practices from other states, relevant literature and identify promising/best practices for identification, treatment and follow-up of infants with NAS

IPQIC NAS TASK FORCE DELIVERABLES

- Before November 1, 2014, the state department, in consultation with the NAS Task Force shall report the following to the legislative council in an electronic format under IC 15-14-6 for distribution to the appropriate interim study committee:
  - 1) The appropriate standard clinical definition of "Neonatal Abstinence Syndrome"
  - 2) The development of a uniform process of identifying Neonatal Abstinence Syndrome (NAS)
  - 3) The estimated time and resources needed to educate hospital personnel in implementing an appropriate and uniform process for identifying NAS
  - 4) The identification and review of appropriate data reporting options available for the reporting of NAS data to the state department, including recommendations for reporting NAS using existing data reporting options or new data reporting options
  - 5) The identification of whether payment methodologies for identifying NAS and the reporting of NAS data are currently available or needed

IPQIC NAS TASK FORCE DELIVERABLES

- By December 31, 2014 make recommendation regarding the feasibility of the ISDH establishing one (1) or more pilot program before June 1, 2015, with hospitals that consent to participate in pilot programs to implement appropriate and effective model for Neonatal Abstinence Syndrome identification, data collection, and reporting determined under Chapter 16. Neonatal Abstinence Syndrome (NAS) of the Indiana Code. Recommendations should include:
  - Definition of NAS
  - Indicators to be collected
  - Strategy for development of data collection system
  - Personnel and resources necessary for maintenance of data collection system
  - Cost of implementation
  - Plan for ongoing collaboration with IPQIC

Recommended Obstetric Protocol (approved 6/19)

- At the initial prenatal visit: As part of routine prenatal screening, the primary care provider will conduct:
  - One standardized and validated verbal screening; and
  - One toxicology screening (urine) with an opt out.

  At the discretion of the primary care provider, INSPECT and/or repeat verbal and toxicology screenings may be performed at any visit.

- At presentation for delivery: When the laboring woman arrives at the hospital for delivery, hospital personnel will:
  - Conduct a standardized and validated verbal screening on all women;
  - Conduct toxicology screening (urine) on women with positive or unknown toxicology screening results;
  - Conduct toxicology screening (urine) on women with a positive verbal screen at presentation for delivery; and
  - Conduct toxicology screening (urine and meconium) on babies whose mothers had positive or unknown toxicology screening results.

Recommended Neonatal Protocol

Level of Risk	Suggested Action
Newborn with **no identifiable risk** – mother has had all negative verbal and toxicology screens	No testing recommended at birth
Newborn **at risk** for NAS – mother has had a positive verbal screen and/or positive toxicology screen	• Perform urine and meconium toxicology screening at birth •Perform Modified Finnegan scoring
Newborns with **unknown risk** – mother has not had either verbal or toxicology screen during pregnancy	• Perform urine and meconium toxicology screening at birth. •Perform Modified Finnegan scoring

Recommended NAS Definition

Babies who are:

- Symptomatic;
- Have two or three consecutive Modified Finnegan scores equal to or greater than a total of 24; and
- Have one of the following:
  - A positive toxicology test, or
  - A maternal history with a positive verbal screen or toxicology test.

DRAFT

Training for NAS Identification and Finnegan Scoring

- Three Levels:
  - State
  - Hospital
  - Physician Office/Clinic
- State Level:
  - One Day training for Hospital Perinatal Educators:
    - Facilitated by Program Author
    - Break-out sessions and peer discussions
  - Information on process and reporting

DRAFT

Training for NAS Identification and Finnegan Scoring (continued)

- Hospital/Birthing Center Level:
  - Perinatal Educator develops training plan to include:
    - Identification process, scoring and reporting;
    - Provider education for other departments (Pediatrics, Emergency)
  - Training materials purchased
  - NAS included as topic in designated/budgeted Education days for all departments involved
  - NAS included in future competency evaluations
  - NAS included in Nursing Orientation Curriculum
- Physician/Clinic Office Training:
  - CD and written materials

DRAFT

Checklist Components

- Maternal testing results:
  - Prenatal records:
    - Verbal screen;
    - Toxicology screen
  - Delivery records:
    - Verbal screen;
    - Toxicology screen
- Baby at risk for NAS:
  - yes_____
  - no_____
- If no, no further data collection needed
- If yes, then proceed:
- Baby's testing results
  - Urine/meconium
  - Finnegan results:
- Diagnosis of NAS made per definition
- Once diagnosis of NAS made, then proceed to ISDH data collection report

DRAFT

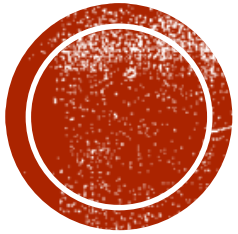
Recommended Data Collection Elements

- Sign in with:
  - Hospital District
  - Hospital Name
  - Department
    - NICU
    - Newborn Nursery
    - Pediatrics
- Infant Age
  - Gestational Age at Birth
  - Gestational Age at Diagnosis
- Age of Mother
- Maternal Residence
  - In-state
  - Out-of -State
- Third Party Coverage
  - IN Medicaid
  - Private Insurance
  - None
- How Diagnosed:
  - Maternal:
    - Verbal Screen
    - Toxicology Screen
  - Baby
    - Toxicology
- Drugs Identified:
  - Mother: _____
  - Baby: _____

DRAFT

Reporting Steps

- Hospitals will have a check list for patients at risk for NAS
- Once NAS diagnosis made, proceed with completing the ISDH reporting list
- Hospitals will submit electronic data biweekly to ISDH.



TEEN SUICIDE

Dr. Thomas W. McAllister, M.D., Albert E. Sterne Professor and Chairman,
Department of Psychiatry, Indiana University School of Medicine

Suicide in Children and Adolescents

"Because there is no health without mental health…."

Indiana University Health

SCHOOL OF MEDICINE
INDIANA UNIVERSITY

Indianapolis

Cathedral High School reports student death

Recommend 2k 60

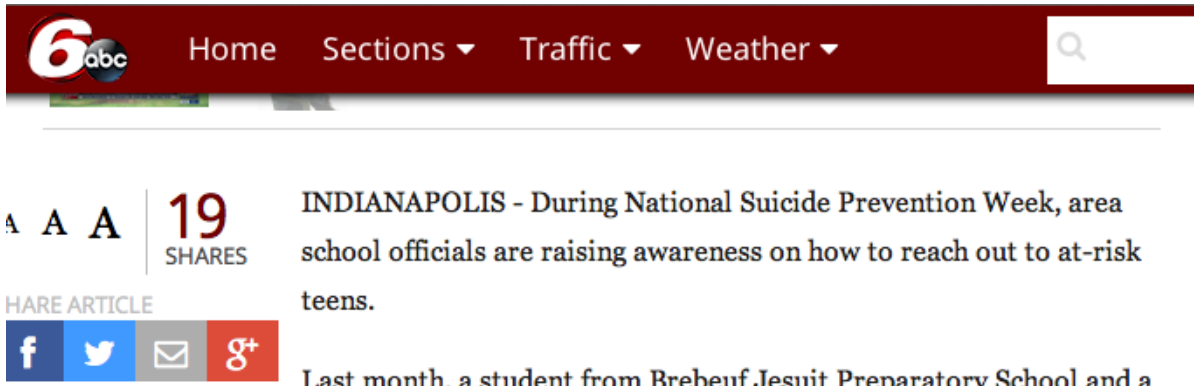
Posted: Sep 12, 2014 12:04 PM EDT

Updated: Sep 12, 2014 5:08 PM EDT

*By Rich Van Wyk, WTHR reporter - **Bio** | **Email***

INDIANAPOLIS - The Indianapolis community is reeling from two student deaths this week.

Lawrence Central and Cathedral High Schools both announced the death of a student. The names of the students have not been released.



National Data: (source: CDC)

- 3rd leading cause of death ages 10-24
- 4600 deaths per year
- Rate of ~13 per 100,000 population
  - ~ 7 per 100,000 age 10-24

- Source: CDC (http://www.cdc.gov/violenceprevention/pub/youth_suicide.html_

Suicide is the tip of the iceberg

- High School Survey: Prior 12 months
  - 16% seriously considered suicide
  - 13% created a plan
  - 8% attempted

Indiana Data

- Suicide is the 2nd leading cause of death among 15-34 year olds
- 11th leading cause of death in Indiana overall, with a rate of 13.1 per 100,000

Indiana: All Age Groups

- Suicide deaths consistently outnumber homicide deaths in Indiana
- In 2012 for example:
  - 935 suicides
  - 344 homicides
    - http://www.in.gov/isdh/reports/mortality/2012/table09/tbl09_00.htm

Intentional self-harm (suicide)	X60-X84,Y87.0	**0**	**7**	**51**	**68**	**141**	**175**	**212**	**149**	**67**	**40**	**25**	**935**
Intentional self-harm (suicide) by discharge of firearms	X72-X74	0	3	24	37	64	80	105	84	50	37	24	508
Intentional self-harm (suicide) by other and unspecified means and their sequelae	X60-X71,X75-X84,Y87.0	0	4	27	31	77	95	107	65	17	3	1	427
Assault (homicide)	X85-Y09,Y87.1	**7**	**16**	**19**	**59**	**98**	**61**	**46**	**18**	**9**	**8**	**3**	**344**
Assault (homicide) by discharge of firearms	X93-X95	0	6	18	51	83	43	31	10	3	3	3	251
Assault (homicide) by other and unspecified means and their sequelae	X85-X92,X96-Y09,Y87.1	7	10	1	8	15	18	15	8	6	5	0	93

Indiana vs National Rate

- Indiana teen rate is closer to 17 per 100,000 population (vs. 13 for national rate)
- Serious suicide attempts
  - 1.9% high school students nationally
  - 1.4% in Ohio
  - **3.9% in Indiana (double national rate)**

Suicide in Indiana Youth

- 29% of students reported feeling sad or hopeless almost every day for 2 wks or more, resulting in behavioral change
  - Marker for depression?
- 19% seriously considered attempting suicide in past 12 months
- 11% of students reported that they attempted suicide in past 12 months

Risk Factors for Youth Suicide

- Depression
- Substance Abuse
- Stressful life event: Grief/loss
- Trauma
  - Psychological and biomechanical
    - Source: CDC
      - http://www.cdc.gov/violenceprevention/pub/youth_suicide.html

Risk Factors for Youth Suicide

- Environment
- Genetics and family history
- Prior attempts
- Incarceration
- Easy access to lethal methods
  - Source: CDC
    - http://www.cdc.gov/violenceprevention/pub/youth_suicide.html

Relationship of Suicide to Psychiatric Illness in Adolescents

ORIGINAL ARTICLE

ONLINE FIRST

Prevalence, Correlates, and Treatment of Lifetime Suicidal Behavior Among Adolescents

Results From the National Comorbidity Survey Replication Adolescent Supplement

Matthew K. Nock, PhD; Jennifer Greif Green, PhD; Irving Hwang, MA; Katie A. McLaughlin, PhD; Nancy A. Sampson, BA; Alan M. Zaslavsky, PhD; Ronald C. Kessler, PhD

Context: Although suicide is the third leading cause of death among US adolescents, little is known about the prevalence, correlates, or treatment of its immediate precursors, adolescent suicidal behaviors (ie, suicide ideation, plans, and attempts).

Objectives: To estimate the lifetime prevalence of suicidal behaviors among US adolescents and the associations of retrospectively reported, temporally primary *DSM-IV* disorders with the subsequent onset of suicidal behaviors.

Design: Dual-frame national sample of adolescents from the National Comorbidity Survey Replication Adolescent Supplement.

Setting: Face-to-face household interviews with adolescents and questionnaires for parents.

Participants: A total of 6483 adolescents 13 to 18 years of age and their parents.

Main Outcome Measures: Lifetime suicide ideation, plans, and attempts.

Results: The estimated lifetime prevalences of suicide ideation, plans, and attempts among the respondents are 12.1%, 4.0%, and 4.1%, respectively. The vast majority of adolescents with these behaviors meet lifetime criteria for at least one *DSM-IV* mental disorder assessed in the survey. Most temporally primary (based on retrospective age-of-onset reports) fear/anger, distress, disruptive behavior, and substance disorders significantly predict elevated odds of subsequent suicidal behaviors in bivariate models. The most consistently significant associations of these disorders are with suicide ideation, although a number of disorders are also predictors of plans and both planned and unplanned attempts among ideators. Most suicidal adolescents (>80%) receive some form of mental health treatment. In most cases (>55%), treatment starts prior to onset of suicidal behaviors but fails to prevent these behaviors from occurring.

Conclusions: Suicidal behaviors are common among US adolescents, with rates that approach those of adults. The vast majority of youth with suicidal behaviors have preexisting mental disorders. The disorders most powerfully predicting ideation, though, are different from those most powerfully predicting conditional transitions from ideation to plans and attempts. These differences suggest that distinct prediction and prevention strategies are needed for ideation, plans among ideators, planned attempts, and unplanned attempts.

JAMA Psychiatry.
Published online January 9, 2013.
doi:10.1001/2013.jamapsychiatry.55

Relationship of Psychiatric Disorders to Suicide in Adolescents

- Lifetime prevalence of:
  - Ideation: 12.1%
  - Plans: 4.0%
  - Attempts: 4.1%
- ~90% have a psychiatric disorder
- Only about half (55%) received treatment prior to suicidal onset

Relationship of Psychiatric Disorders to Suicide in Adolescents

Table 1. Lifetime Prevalence of Adolescent Suicidality in the National Comorbidity Survey Replication Adolescent Supplement

	Adolescents, % (SE)						
	Total Sample (N=6483)			Lifetime Ideators			
Variable	Ideation	Plan	Attempt	Plan (n=717)	Attempt (n=717)	Attempt Among Those With a Plan (n=203)	Attempt Among Those With No Plan (n=514)
Sex							
Female	15.3 (1.2)[a]	5.1 (0.8)[a]	6.2 (0.9)[a]	33.3 (4.1)	40.6 (3.9)[a]	69.9 (4.6)[a]	25.9 (5.8)[a]
Male	9.1 (0.8)	3.0 (0.6)	2.1 (0.5)	33.4 (5.2)	23.3 (4.9)	46.3 (9.8)	11.7 (2.8)
Total	12.1 (0.9)	4.0 (0.5)	4.1 (0.6)	33.4 (3.2)	33.9 (3.7)	60.8 (4.8)	20.4 (4.1)

[a]Significant sex difference at $P < .05$, determined by a 2-sided test.

Relationship of Psychiatric Disorders to Suicide in Adolescents

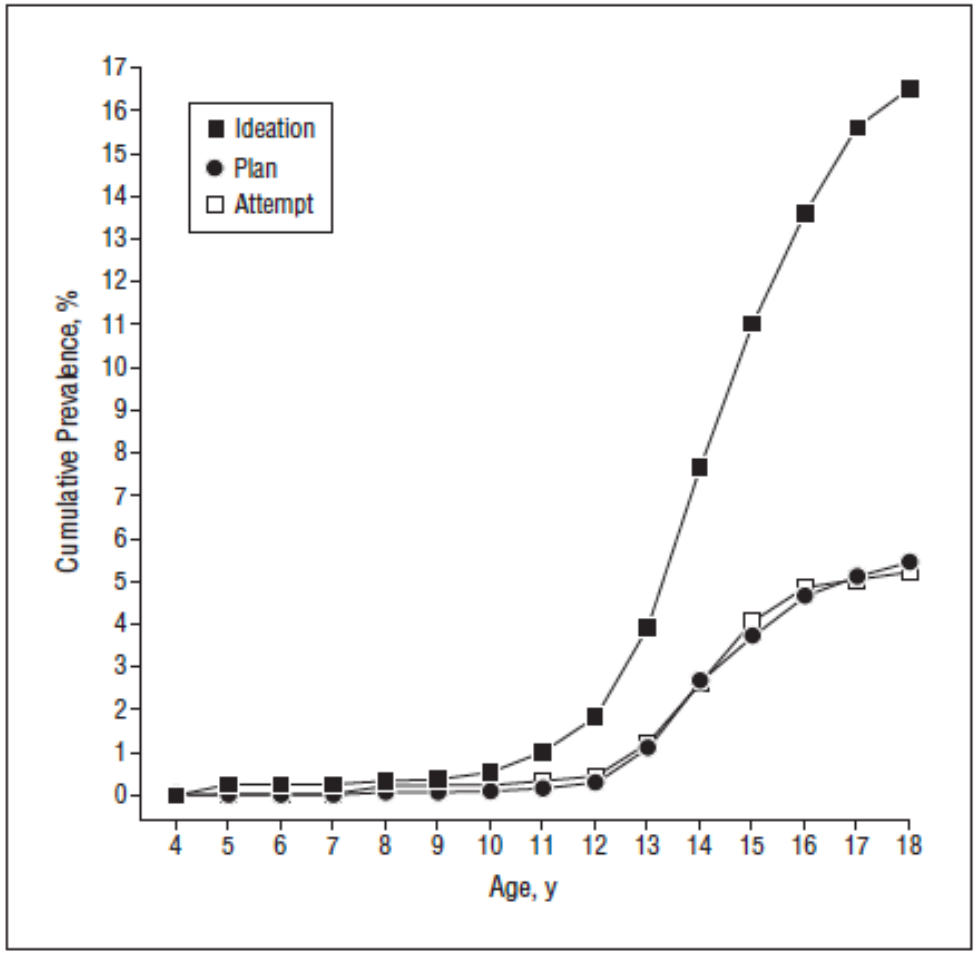


Figure 1. Age-at-onset curves of suicidal behaviors. Values are all 0.0 for children 1 to 4 years of age.

Relationship of Psychiatric Disorders to Suicide in Adolescents

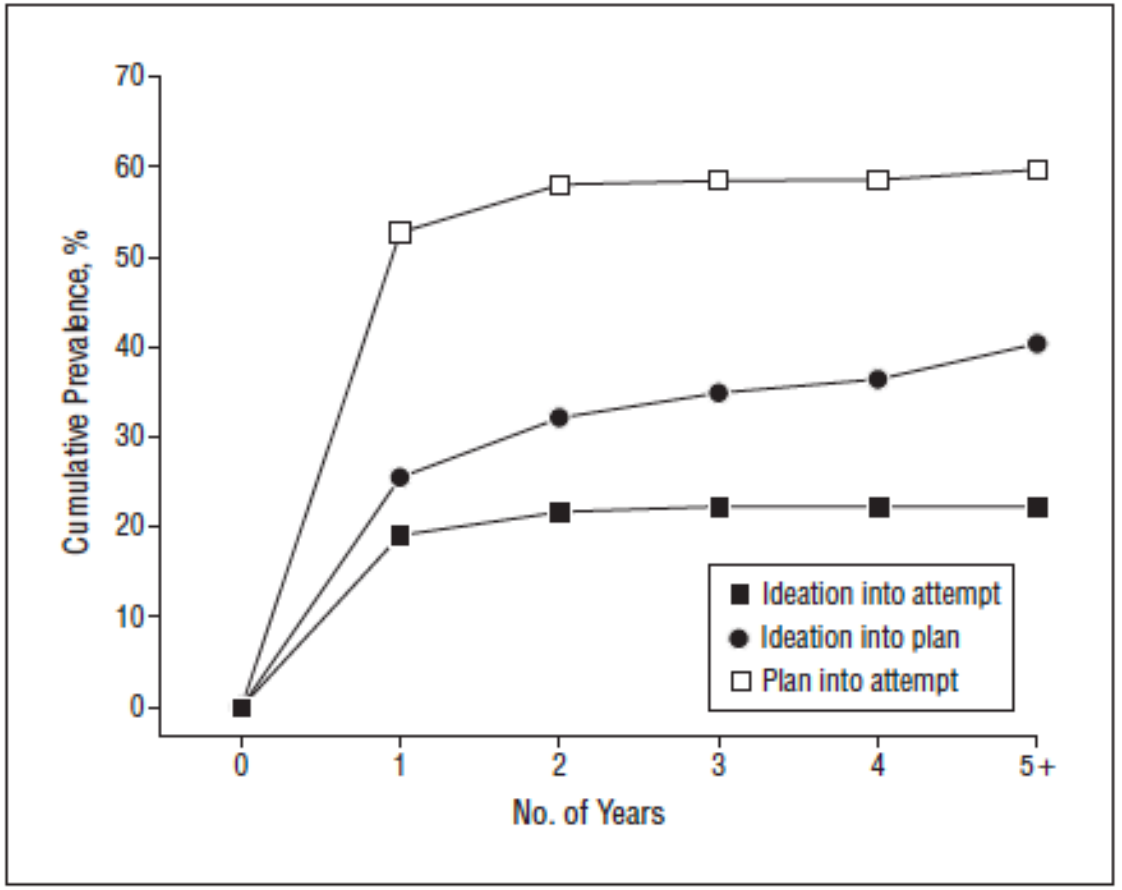


Figure 2. Speed of transition across suicidal behaviors.

Indiana

INTENTIONAL SELF-HARM (SUICIDE)											
X60-X84,Y87.0											
INDIANA	ALL RACES			WHITE			BLACK			OTHER	HISPANIC
AGE GROUP	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
Total	**935**	**746**	**189**	**874**	**695**	**179**	**36**	**30**	**6**	**25**	**25**
Under 1	0	0	0	0	0	0	0	0	0	0	0
1 - 4	0	0	0	0	0	0	0	0	0	0	0
5 - 9	0	0	0	0	0	0	0	0	0	0	0
10 - 14	7	6	1	7	6	1	0	0	0	0	0
15 - 19	51	39	12	45	35	10	2	1	1	4	4
20 - 24	68	58	10	59	50	9	5	4	1	4	3
25 - 29	76	58	18	71	54	17	3	3	0	2	4
30 - 34	65	52	13	60	48	12	5	4	1	0	0
35 - 39	89	70	19	81	63	18	5	4	1	3	4
40 - 44	86	69	17	78	63	15	7	5	2	1	1
45 - 49	118	95	23	111	88	23	4	4	0	3	2
50 - 54	94	69	25	91	66	25	2	2	0	1	1
55 - 59	88	67	21	85	65	20	0	0	0	3	5
60 - 64	61	49	12	56	45	11	2	2	0	3	0
65 - 69	37	30	7	36	29	7	1	1	0	0	0

Relationship of Psychiatric Disorders to Suicide in Adolescents

Table 3. Lifetime Prevalence of *DSM-IV*/CIDI Mental Disorders Among Respondents With vs Without Lifetime Suicidality[a]

Disorder	Adolescents, % (SE)					
	Total Sample			Lifetime Ideators		No Lifetime Suicidality[c] (n = 5766)
	Ideation (n = 717)	Plan (n = 203)	Attempt (n = 196)	Planned Attempt[b] (n = 112)	Unplanned Attempt (n = 84)	
Fear/anger disorders						
Specific phobia	36.8 (2.7)[d]	39.0 (6.2)[d]	44.3 (6.3)[d]	40.7 (8.8)[d]	49.6 (12.8)[d]	17.6 (1.0)
Panic disorder and/or agoraphobia	10.1 (1.8)[d]	10.6 (2.7)[d]	10.4 (3.0)	10.8 (3.6)	9.8 (4.1)	4.0 (0.5)
Social phobia	19.9 (2.9)[d]	16.2 (2.8)[d]	25.6 (7.0)[d]	17.7 (4.3)[d]	37.5 (15.0)	7.0 (0.5)
Intermittent explosive disorder	29.4 (2.6)[d]	35.7 (5.5)[d]	35.2 (7.0)[d]	42.1 (8.4)[d]	24.9 (8.8)	11.5 (0.7)
Distress disorders						
Separation anxiety disorder	11.9 (2.1)	8.9 (2.7)	7.0 (2.2)	3.9 (1.6)	11.5 (4.8)	7.0 (0.5)
Posttraumatic stress disorder	16.1 (2.1)[d]	27.9 (4.3)[d]	25.7 (5.4)[d]	34.2 (5.9)[d]	13.0 (6.2)	3.1 (0.3)
MDD/DYS	56.8 (3.4)[d]	69.7 (4.7)[d]	75.7 (4.7)[d]	76.7 (6.7)[d]	74.3 (8.2)[d]	13.3 (0.9)
Generalized anxiety disorder	8.4 (1.7)[d]	10.3 (3.1)	9.2 (3.5)[d]	11.2 (5.0)	6.2 (2.7)	1.6 (0.3)
Disruptive behavior disorders						
ADHD	16.3 (2.6)[d]	19.0 (5.4)[d]	21.5 (4.6)[d]	23.5 (8.0)	18.5 (6.0)	7.0 (0.6)
Oppositional defiant disorder	34.4 (3.9)[d]	41.6 (5.0)[d]	50.0 (8.0)[d]	51.5 (6.1)[d]	47.8 (13.9)[d]	9.6 (0.8)
Conduct disorder	20.2 (4.4)[d]	22.8 (5.3)[d]	33.5 (10.2)[d]	26.9 (7.6)[d]	43.3 (13.8)[d]	5.0 (0.7)
Any eating disorder	15.8 (2.8)[d]	11.9 (3.7)	26.7 (6.9)[d]	15.3 (5.9)	43.7 (14.4)[d]	4.0 (0.6)
Substance abuse[e]						
Alcohol abuse	18.4 (2.0)[d]	28.6 (5.3)[d]	24.3 (4.4)[d]	34.4 (7.9)[d]	9.2 (3.5)	4.6 (0.5)
Illicit drug abuse	27.4 (2.9)[d]	28.0 (4.5)[d]	34.7 (6.1)[d]	27.5 (6.0)[d]	45.3 (13.9)[d]	6.4 (0.6)
Other disorders						
Bipolar I or II	9.1 (1.8)[d]	11.9 (4.2)[d]	13.2 (4.3)[d]	18.6 (6.5)[d]	5.2 (2.5)	2.2 (0.3)
Any disorder	89.3 (1.3)[d]	93.6 (2.2)[d]	96.1 (1.8)[d]	96.7 (2.5)[d]	95.2 (2.8)[d]	49.5 (1.3)

Abbreviations: ADHD: attention-deficit/hyperactivity disorder; CIDI, Composite International Diagnostic Interview; MDD/DYS, major depressive disorder and/or dysthymia.

[a] The sample was restricted to adolescents with the outcomes defined in the column headings.

[b] The sample was restricted to adolescents who had a lifetime plan.

[c] The sample was restricted to adolescents who never displayed any suicidal behavior.

[d] Significant difference in prevalence from respondents who had no history of suicidal behavior at $P < .05$, determined by a 2-sided test.

[e] With or without a history of dependence.

Relationship of Psychiatric Disorders to Suicide in Adolescents

Table 4. Bivariate and Multivariate Associations of Temporally Primary *DSM-IV*/CIDI Disorders With First Onset of Lifetime Suicide Attempts in the Total Sample (N=6483)[a]

Disorder	Odds Ratio (95% CI) Bivariate Model[b]	Odds Ratio (95% CI) Multivariate Model[b]
Fear/anger disorders		
Specific phobia	2.5 (1.7-3.8)[c]	1.2 (0.8-1.8)
Panic disorder and/or agoraphobia	1.9 (0.9-4.3)	1.1 (0.4-3.1)
Social phobia	2.5 (1.4-4.3)[c]	0.8 (0.4-2.0)
Intermittent explosive disorder	3.5 (1.7-7.5)[c]	1.7 (0.8-3.6)
Distress disorders		
Separation anxiety disorder	0.8 (0.3-1.7)	0.3 (0.1-0.7)[c]
Posttraumatic stress disorder	7.3 (3.7-14.4)[c]	3.3 (2.0-5.5)[c]
MDD/DYS	12.3 (8.0-19.0)[c]	6.2 (3.8-10.0)[c]
Generalized anxiety disorder	4.1 (1.4-11.8)[c]	0.9 (0.2-3.4)
Disruptive behavior disorders		
ADHD	4.8 (2.9-8.0)[c]	1.9 (1.0-3.7)
Oppositional defiant disorder	7.2 (4.0-12.8)[c]	2.1 (1.2-3.6)[c]
Conduct disorder	4.5 (2.6-7.9)[c]	1.0 (0.5-2.2)
Any eating disorder	7.4 (4.1-13.6)[c]	3.2 (1.5-7.0)[c]
Substance abuse[d]		
Alcohol abuse	2.8 (1.2-6.3)[c]	1.1 (0.5-2.4)
Illicit drug abuse	4.8 (2.5-9.1)[c]	1.3 (0.5-3.3)
Other disorders		
Bipolar I or I	8.8 (3.8-20.1)[c]	2.9 (1.0-7.9)[c]

Early Identification

- Half of all serious mental health conditions start by age 14*
- Average lag between symptoms and treatment is 10 years*
- Evidence for efficacy of early intervention growing:
  - Autism
  - Psychosis/schizophrenia

* Merikangas et al. National Co-morbidity Study

Indiana Youth: Mental Health Needs

- One in five Hoosier youth have mental health needs
- 9 to 13% have significant functional impairments
- 5 to 9% have serious emotional disturbance

Source: FSSA, Substance Abuse and Mental Health Block Grant Application

Indiana Picture

- Assuming national rates apply:
  - 170,000 children suffer from a behavioral health problem in any given year
  - 71,000 children in Indiana live with serious (usually chronic) mental health conditions.

Greater Needs in Certain Populations

- 50% of children and youth in child welfare have mental health disorders
- 67 to 70% of youth in the JJ system have a mental health disorder

Source: http://findyouthinfo.gov/youth-topics/youth-mental-health/prevalance-mental-health-disorders-among-youth#_ftn

Impact of Mental Illness on Health Care Costs

- Medical costs for patients with mental health/substance use disorders:
  - ~2-3 times higher than those without.
  - Only 14% of people with insurance are receiving treatment of mental health/substance abuse issues, but they account for over 30% of total health care spending.
- We are paying the price for mental illness, but not for treatment of mental illness

Expenditures on Children's Mental Health

- A decade ago data suggested:
  - ~13% of mental health care dollars spent on those under age 21 ($12B of $85B).
    - $293 per adolescent
    - $163 per school-age child
    - $35 per preschool-age child

Published in final edited form as:
Am Psychol. 2005 September ; 60(6): 601–614. doi:10.1037/0003-066X.60.6.601.

Children's Mental Health as a Primary Care and Concern:

A System for Comprehensive Support and Service

Patrick H. Tolan and
Institute for Juvenile Research, Department of Psychiatry, University of Illinois at Chicago
Kenneth A. Dodge
Center for Child and Family Policy, Duke University

Gaps in Treatment and Treatment Capacity

- ~20% of those needing treatment received treatment in past year.
- ~50% of those needing treatment have *ever* been treated

Economic Impact of Youth Mental Illness and Cost

- Access Economics repeated the Andrew et al (2004) exercise, updating costs to 2009, and applying it only to young people aged 15-25 with mental illness.
  - Andrews G, Issakidis C, Sanderson K, Corry J, Lapsley H (2004) 'Utilising survey data to inform public policy: comparison of the cost effectiveness of treatment of ten menta disorders', British Journal of Psychiatry, 184, 526-533
- Results showed a benefit to cost ratio (BCR) of 3.26 to 1.
- Best practice treatment is considerably more effective with the BCR increasing to 5.6:1.

Report was produced with the support of the headspace Centre of Excellence, Orygen Youth Health Research Centre, Parkville, Victoria. headspace is funded by the Australian Government under the Promoting Better Mental Health – Youth Mental Health Initiative.

NAMI Ratings of State Mental Health Systems 2009

- Indiana received “D” rating in all areas:
  - Health promotion and measurement
  - Financing and core treatment/recovery services
  - Consumer and family empowerment
  - Community inclusion and integration

Treatment Capacity Reductions

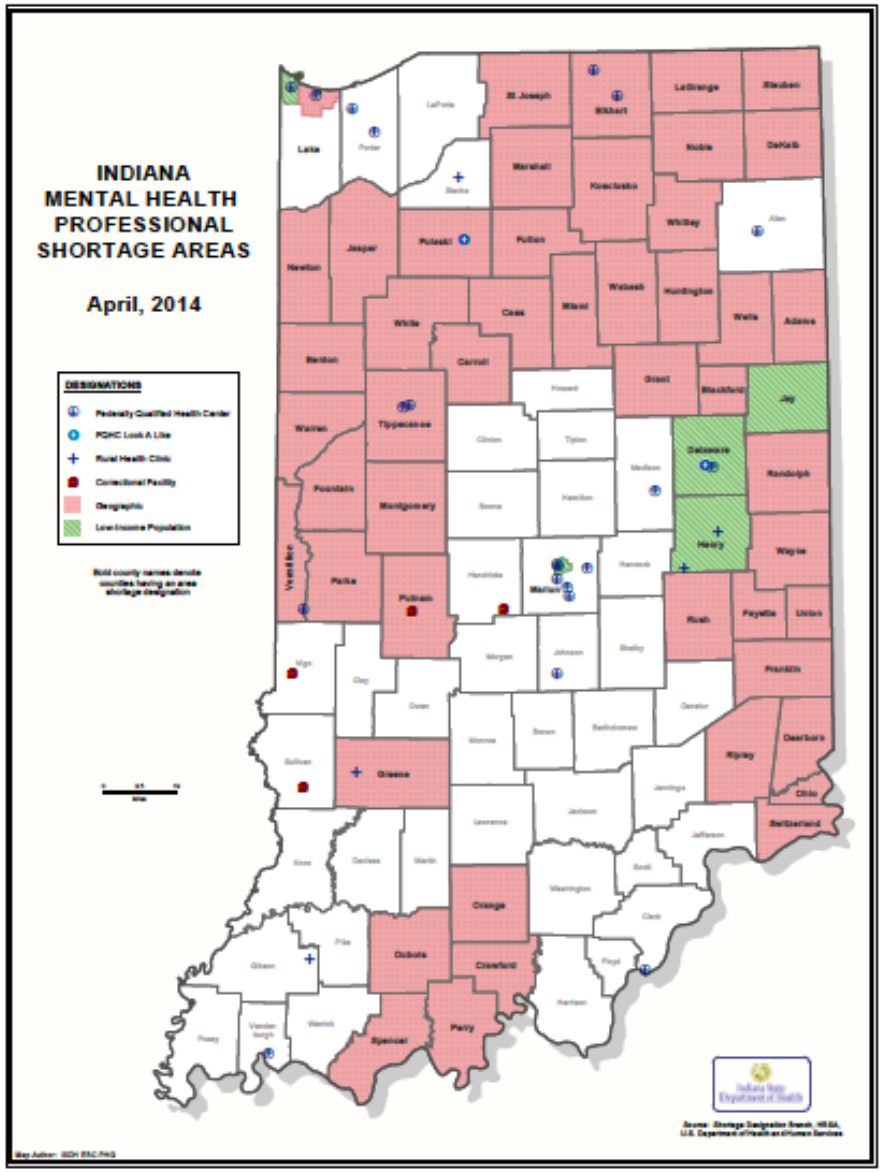
- AHA data shows that nationwide, psychiatric inpatient beds dropped by ~30% from 1995-2009
  - Indiana beds dropped from 257.5 beds to 19.3 beds per 100,000 population.
    - < half the “ideal” number
  - Unequal distribution: 52 shortage areas in IN

Psychiatrist Shortages

- Indiana 41st lowest in the nation (Mental Health America 2007) in psychiatrists
- Only one residency program currently for Child and Adolescent Psychiatry (IUSM)
  - Training slots half of what they were in 20 years ago
- Economic Disincentive to enter the field
  - 4th lowest paid specialty

Mental Health Provider Shortage Areas

Bold Areas Denote Shortage Areas



Indiana University Health

F MEDICINE
TY

Big Picture

- Suicide is a big problem world wide
  - Several metrics suggest IN is an outlier
- Suicide strongly associated with psychiatric illness
- Defunding of psychiatric treatment has resulted in severe treatment capacity deficits
- Psychiatric Sx's precede diagnosis/treatment
- Mismatch of resource allocation to size of problem

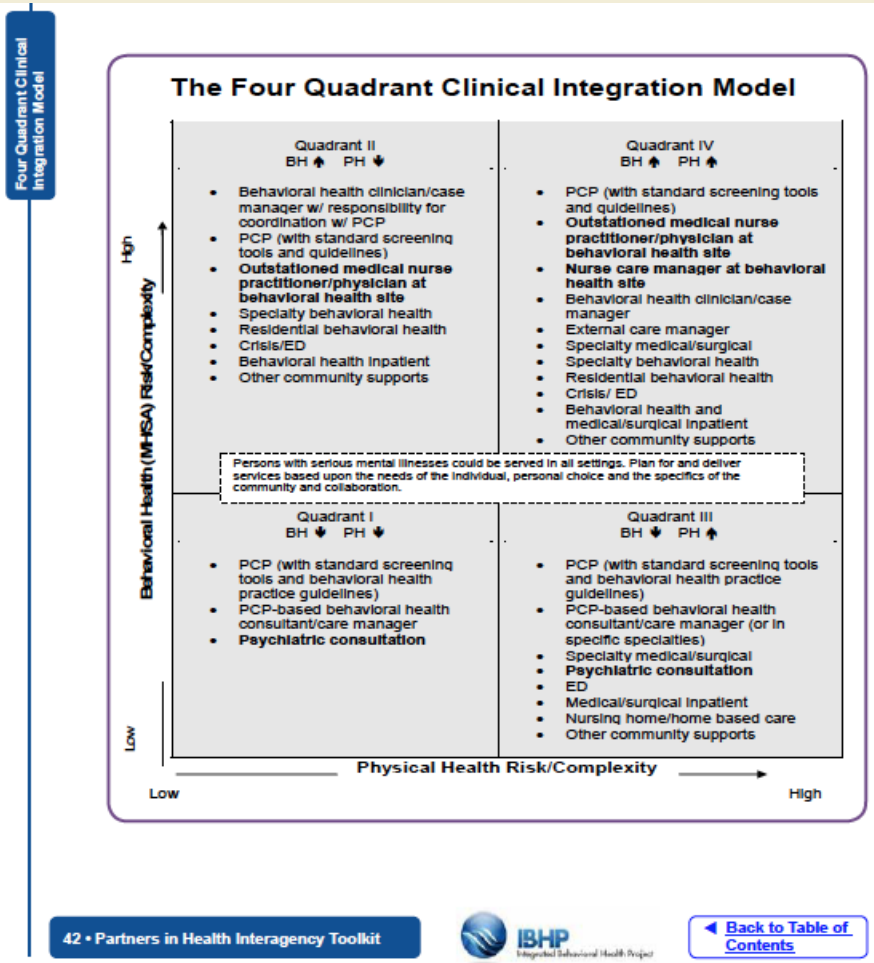
What is Needed?

- Complex multi-factorial problem. There is no single solution.
- In broad strokes:
  - Prevention/mitigation of risk factors
  - Improve access to care
    - Incentivize integrated behavioral/primary care
    - Targeted inpatient/partial hospitalization prgms
    - Facilitate training of Indiana mental health providers

Several Approaches Being Tried…

- Primary Care-based
- School-based
- Psychiatry/primary care consultation based

Integrated Collaborative Care Model (California)



http://calmhsa.org/wp-content/uploads/2013/04/IBHP_Interagency_Collaboration_Tool_Kit_2013.pdf

Australian "Headspace Model"

- Integrated Care Model
  - Youth friendly "hubs"/one stop shops
    - Private practice allied health providers
    - Augmented with state supported mental health, administrative, and outreach staff
      - Mental health, drug/alcohol, vocational
  - Governance through consortium of local organizations under lead of one agence
- Capacity building, networking, early ID/referral

School Based Approaches

- Community access barriers
  - Lack of providers
  - Wait times
  - Kept appointments at Urban MHC's ~50%
  - Payment
  - Stigma
  - Past experiences

School Strategies

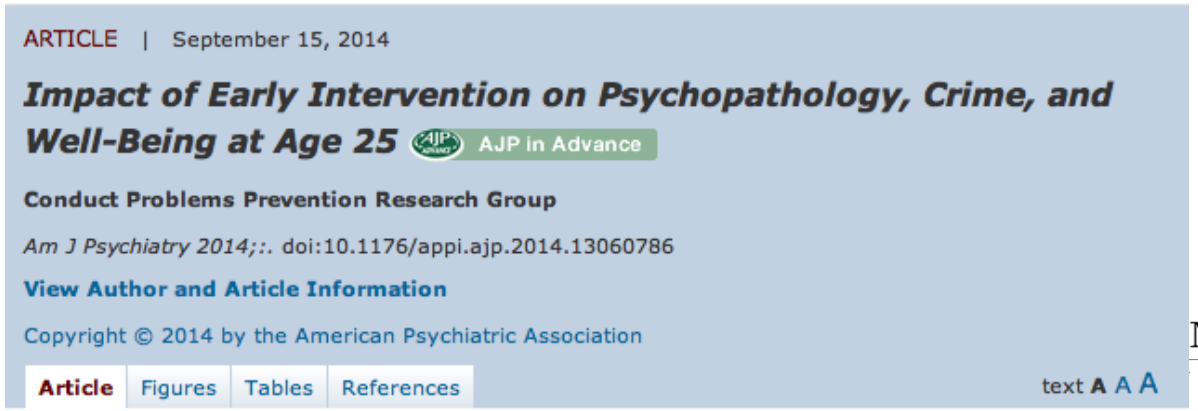
- Protocols for:
  - Early identification/screening
  - Helping students at risk
  - Responding to suicide deaths
- Staff education and training
- Parent education
- Student education
  - http://store.samhsa.gov/shin/content//SMA12-4669/SMA12-4669.pdf

Minnesota

- Features
  - Augment student support staff
  - CMH Agencies provide full time mental health professional at each school
  - Most of time in direct child and family services
- Minneapolis
  - Started with 5 schools and 2 agencies
  - Now 81 schools, 58 FTEs, $3.8M

Early Intervention

- Social Skills training grades K-10th
- 8 years later (age 25) showed reduced levels of:
  - Psychiatric diagnoses (~60% vs. 70%)
  - Criminal behavior (violence & drug crime scores)
  - Risky sexual behavior



ARTICLE | September 15, 2014

Impact of Early Intervention on Psychopathology, Crime, and Well-Being at Age 25 AJP in Advance

Conduct Problems Prevention Research Group

Am J Psychiatry 2014;:. doi:10.1176/appi.ajp.2014.13060786

View Author and Article Information

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Article | Figures | Tables | References | text A A A

Psychiatry-Primary Care Consultation

The Massachusetts Child Psychiatry Access Project: Supporting Mental Health Treatment in Primary Care

WENDY HOLT
DMA HEALTH STRATEGIES

The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

ABSTRACT:
Massachusetts has successfully demonstrated the Massachusetts Child Psychiatry Access Project (MCPAP), a program that provides timely telephonic psychiatric and clinical guidance to primary care providers (PCPs) treating children with mental health problems. The program allows enrolled PCPs to get assistance for any child in their care. On the basis of an initial phone consultation, MCPAP may provide an in-person psychiatric or clinical assessment, transitional therapy, and/or facilitated linkage to community resources. Six regional teams based in academic medical centers reach out to and support enrolled PCPs in their catchment area. The program has enrolled most primary care practices, representing an estimated 95 percent of all youth in the state, and has high rates of PCP participation. PCPs report higher ratings of their ability to serve children with mental health problems as a result of the program.

MCAP

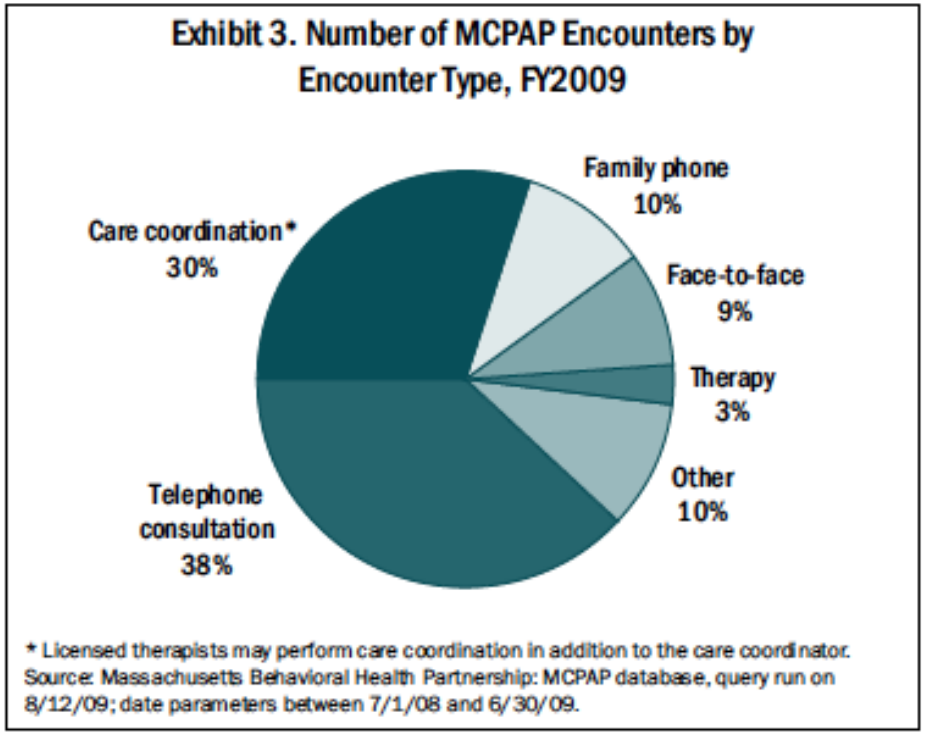
- To increase primary care access to child psychiatry consultation
  - Need 30,000 child psychiatrists, 6,300 in practice
- Immediate – 30 min telephone consultation
- 6 regional teams
  - 1.0 FTE child psychiatrist
  - 1.5 FTE social worker
  - 1.0 FTE care coordinator

MCPAP

- Full implementation: $3.2M annually
  - Regional team contracts
  - Overhead rate
  - 2 part-time medical directors
  - DMH contracts with MA Behavioral Health Partnership (managed care organization)

MCPAP

- High satisfaction
- All Pediatric PCPs enrolled
- Services ~70% each quarter



Summary

- Suicide is a big problem, but is the tip of the iceberg
- Needs to be addressed at several levels
  - Context of children's mental health needs
  - Early identification and intervention
  - Improved access to care
- Intervention associated with favorable cost-benefit ratio

AGENDA

- Discussion: Next Steps on Infant Mortality and Child Health
- Open Discussion

AGENDA

- Topics for the November Commission Meeting
  a. Human trafficking: Attorney General Greg Zoeller
  b. Update on progress of SEA 227-2014: Representative Christina Hale (underreporting of crimes of domestic or sexual violence)
  c. Task Force Report: Data Sharing and Mapping

AGENDA

- Topics for Future Meetings
  - Faith Based Solutions
- Next Meeting: November 19, 2014 10:00 a.m. – 2:00 p.m., Indiana Government Center South, Conference Room C
- 2015 Meeting Dates: 10:00 a.m. - 2:00 p.m. Indiana Government Center South
  - February 18, 2015
  - May 20, 2015
  - August 19, 2015
  - November 18, 2015

WEBSITE

The website to view all documents handed out at Commission meetings and the webcast of today's meeting can be found at www.in.gov/children.