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## **Illinois Levels of Care Assessment Tool (LOCATe): Overview of Neonatal Results**

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## **LOCATe BACKGROUND**

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## What is LOCATe?

- “Levels Of Care Assessment Tool”
- Hospital survey on obstetric and neonatal practices and services
- Estimates maternal and neonatal levels of care based on responses to survey questions
- CDC-developed survey instrument & field tested during 2014 in two states

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## What is LOCATe?

- Tied to established criteria
  - 2015 ACOG/SMFM maternal levels of care
  - 2012 AAP neonatal levels of care
- Meant to be a **simple** survey to identify **minimum criteria** for each level of care
  - (Not comprehensive!)
  - 10 neonatal care questions
  - 11 obstetric care questions

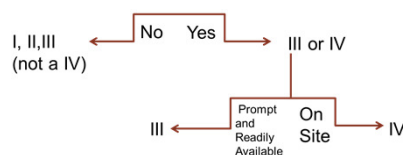
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## LOCATe Level Classification Process

- Hospitals answer questions about their available services

• During 201x, did your facility provide Y?

- A series of logic trees are applied



- Maternal and Neonatal LoC estimated by algorithm based on accumulation of responses

Slide Credit: Dr. Dave Goodman, CDC

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## IDPH Uses of LOCATe

- *First, let's describe what LOCATe is NOT intended for...*
- **Not for Regulation or Designation!**
  - Because LOCATe is not a comprehensive tool, it is not intended to capture all criteria in the AAP or ACOG guidelines
  - LOCATe is not intended to be a substitute for site visits and the thorough review of hospital practices for designation

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## IDPH Uses of LOCATe

- **Understand current IL perinatal system in relation to AAP and ACOG guidelines**
  - Better understand the difference between our current state code and national guidelines
  - Describe how hospitals are functioning in relation to national guidelines
  - Analyze regional differences in services
  - Describe geographic access to various levels of care
  - Describe parity between neonatal & maternal LoC

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## IDPH Uses of LOCATe

- **Analyze outcomes by LoC**
  - How do neonatal & maternal LoC impact infant/maternal mortality and morbidity ?
  - Does disparity of neonatal & maternal LoC impact outcomes ?
- **Provide feedback to facilities**
  - Follow up with facilities based on unexpected results
  - Show gaps in services by geography
  - Inform hospitals of their results, enhance conversations about levels of care

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## LOCATe RESULTS

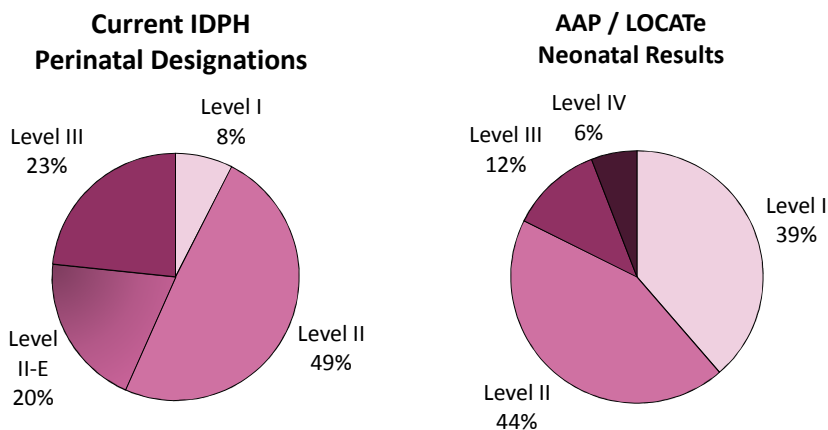
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## LOCATe Implementation in Illinois

- **All 120 Illinois perinatal hospitals completed LOCATe!**
  - Including 4 hospitals in St. Louis that are part of Southern Illinois perinatal network
- Illinois is the first large state to implement and analyze LOCATe on a statewide basis
- Illinois is the first state to link LOCATe results to vital records files to analyze infant outcomes

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## Comparison of Current Illinois Levels and AAP / LOCATe Neonatal Results



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## Summary of Illinois & AAP Differences

- **AAP establishes Level IV**
  - Hospitals in both Chicago and St. Louis areas
- **Some IDPH-Level III hospitals may not meet AAP Level III requirements**
  - Mostly because they did not meet criteria of “Neonatologist onsite”
  - In spite of this, geographic access to Level III would not change
- **AAP does not include Level II-E**
- **Many IDPH-Level II hospitals may not meet AAP Level II requirements**
  - Mostly because they did not meet criteria of “Neonatologist *on staff*”
  - Level II facilities outside the Chicago area were more likely to receive LOCATe score of Level I

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## Examining Impact of Neonatal LoC

- We wanted to compare across levels and across specific services to see how they impact deaths among babies
- Linked birth & death certificates with LOCATe results for births occurring during 2014
- Examined outcomes for very low birthweight (VLBW; <1500g) babies and low birthweight (LBW; <2500g) babies (*small babies are expected to benefit most from levels of care*)
- **Neonatal Mortality** = death during the first 28 days of life

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## Impact of Risk Appropriate Care

- *Among VLBW infants, neonatal mortality rates were higher for babies born in lower level facilities:*
  - **By Current Illinois Levels of Care:**
    - Level II vs. Level III: ↑ 300% (p = <0.01)
    - Level II-E vs. Level III: ↑ 150% (p = <0.01)
  - **By LOCATe / AAP Levels of Care**
    - Level I vs. Level IV: ↑ 480% (p = <0.01)
    - Level II vs. Level IV: ↑ 75% (p = 0.03)
    - Level III vs. Level IV: ↑ 35% (p = 0.10 : non-significant)

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## Impact of Neonatologist

- *Within current Level III facilities:*
  - Neonatal mortality rates for VLBW infants were **60% higher** when the birth facility did **not have an onsite neonatologist**. ( $p = 0.08$ )
- *Within current Level II & II-E facilities:*
  - Neonatal mortality rates for LBW infants were **150% higher** when the birth facility did **not have a neonatologist on staff** ( $p = <0.01$ )

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## NEXT STEPS FOR LOCATE

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## Hospital Information Sheets

- Information to be Included:
  - Overview of LOCATe
  - Description of Hospital's LOCATe results
    - Estimated LOCATe Levels of Care
    - Description of the reasons for the LOCATe level classification
    - Comparison to the levels that the hospital predicted they would be (*self-assessment*)
    - Resources about AAP and ACOG levels of care
  - ***Estimated Release Date:*** March 15, 2017

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