Evaluating Facility Infrastructure for PMTCT of HIV – A 2015 Assessment of Major Delivery Hospitals in Atlanta, Georgia, US

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Disclosures

- I have no actual or potential conflict of interest in relation to this program/presentation.

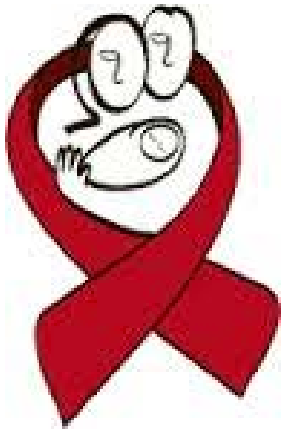
Perinatal HIV: Where Does GA Currently Stand?

- GA ranked **5th highest** in nation for overall total number new HIV infections (2014)[1]
- Prevalence of HIV (2013)[2]
  - 12,801 females
  - 181 children < 13 years old (vast majority perinatally infected)
- An estimated 250-300 HIV-positive women giving birth each year in GA[2]
- **36** newly diagnosed perinatal HIV infections in GA (2010-2016)[2]

[1]Centers for Disease Control and Prevention. HIV Surveillance Report, 2013; vol.25. http://www.cdc.gov/hiv/topics/surveillance/resources/reports/. Published February 2015

[2]Georgia Department of Public Health, July 2015

Prevention Challenges



Missed Opportunities for PMTCT: Case Review of Perinatal Infections (2005–2012)

- Case review of perinatal infections at Ponce Infectious Disease Program
  - Objective: to describe system failures potentially contributing to MTCT
- Demographics:
  - 27 perinatal HIV transmission
  - 89% of women were African American
  - 63% between 16-30 years of age
  - 74% (20) knew their diagnosis prior to pregnancy
    - 50% did not receive prenatal care
    - 45% did not receive cART
    - 25% did nor receive intrapartum AZT
- 33% of babies did not receive postnatal AZT prophylaxis
- VL was not available at time of delivery for 17/27 women

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THE INTERVENTION

Perinatal HIV Services Coordination (PHSC) Program

Objectives

Primary: To assess institutional infrastructure and policies to reduce MTCT of HIV-1 at major labor and delivery units in the Atlanta Metropolitan Statistical Area (AMSA)

Secondary: Evaluate knowledge and practices of healthcare providers, including reported adherence to national PMTCT guidelines

Methods

Target population:

- **11** delivery hospitals with approximately 40,000 annual births, constituting **70% of deliveries in the AMSA**

- Study Period: March 2015- March 2016

Assessment:

- Interviews (on-site & phone) with department representatives from each facility to obtain department specific information
  - **Pharmacy:** availability of zidovudine (AZT) & nevirapine (NVP)
  - **Laboratory:** types of HIV testing for mother and infant, test result turn around times
  - **L&D Unit:** Policies and procedures, order sets for PMTCT, opt-out versus opt-in testing, rapid point of care testing on unit

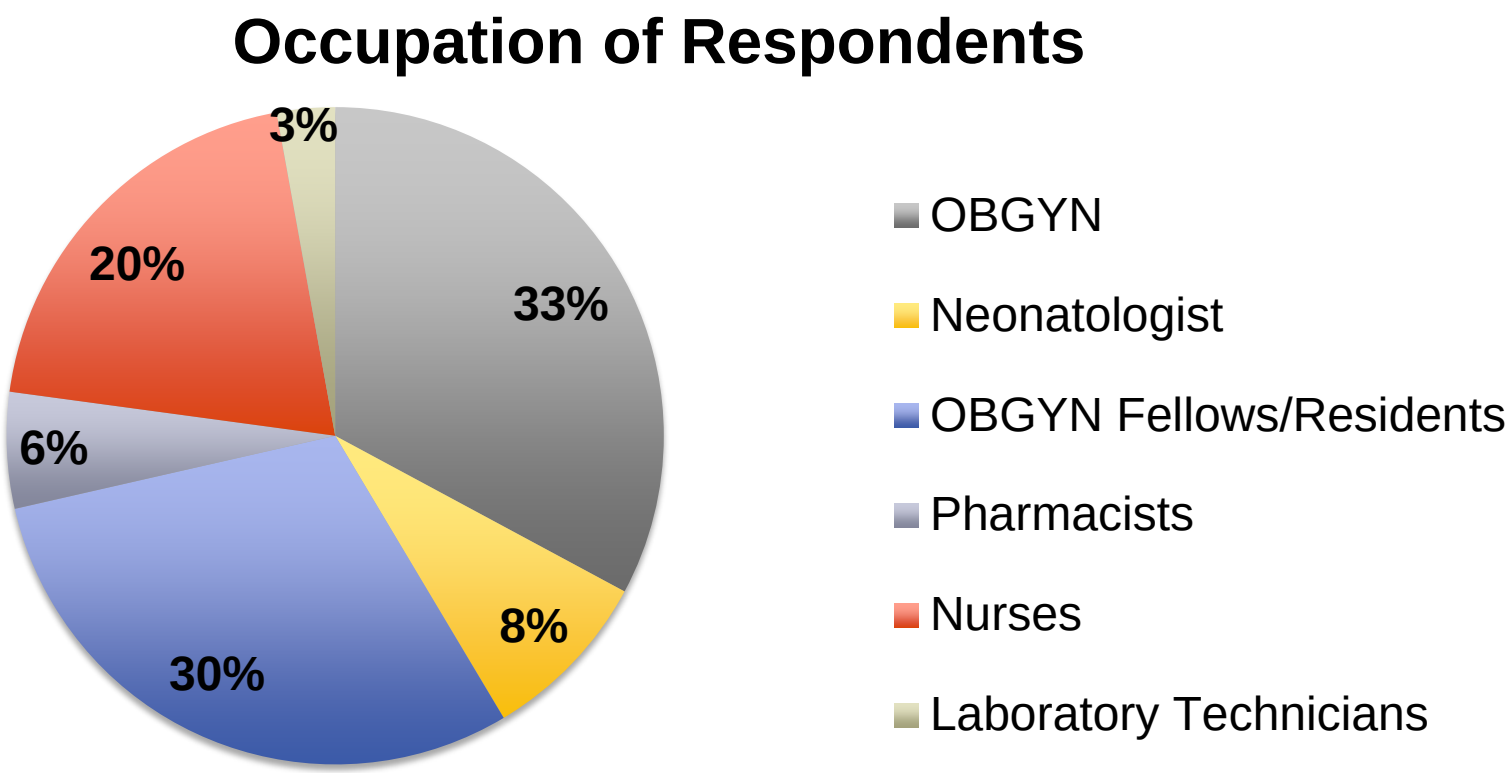
Methods continued…

Survey: knowledge and practice based questions

- HIV-testing practices of mother and baby
- Knowledge of guideline recommendations for use of antiretroviral prophylaxis
- Practices for documentation & screening of maternal HIV status

Participant Population: Surveys were completed by a convenience sample of healthcare providers (obstetricians, neonatologists, pharmacists and nurses) involved in the intrapartum care of HIV-positive women and their infants

Survey Respondents (n=71)



Hospital Assessment Primary Outcome

A deficit in PMTCT uptake:

- Defined as missing one or more of the national recommendations for PTMCT care continuum:

  Mother's Care:

  - Standardized policies and procedures for PMTCT
  - Rapid testing at delivery
  - Opt-out HIV screening of women at delivery
  - HIV test results available within 2 hours

  Infant's Care

  - Virologic testing of HIV exposed infant
  - Availability of oral AZT and NVP formulations for HIV exposed infant prophylaxis.

- **10/11** of hospitals had deficits in PMTCT infrastructure and did not follow one or more national PMTCT recommendations

Hospital Assessment Results: Measure for Care of HIV-Positive Pregnant Women

Hospital Type (n=11)	Annual Deliveries	# of HIV Positive Women Delivering (7/14-6/15)*	# of HIV Infected Babies Born (2005-2013)*	Policies and Procedures for PMTCT	Rapid Point-of-Care Testing at Delivery	Expedited Testing (3rd or 4th generation) at Delivery with Results Available in 1-2 hours	Utilizes Opt-Out HIV Screening of Pregnant Women
University	3,557	9	5	Yes	No	Yes	Yes
University	2,780	33	14	Yes	Yes	Yes	Yes
Private	3,307	3	2	No	No	Yes	Yes
Private	14,789	5	6	Yes	No	No	No
Private	3,223	6	2	No	No	Yes	Yes
Private	4,759	7	1	No	No	Yes	No
Private	5,101	3	1	Yes	No	Yes	Yes
Private	1,860	1	1	Yes	No	Yes	No
Private	5,280	5	2	Yes	No	Yes	Yes
Private	3,756	5	2	Yes	No	Yes	Yes
Private	485	0	1	Yes	No	Yes	Yes

* These numbers were retrieved from birth certificate data

Hospital Assessment Results: Measures for Care of HIV Exposed Infant

Hospital Type	Annual Deliveries	# of HIV Positive Women Delivering (7/14-6/15)*	# of HIV Infected Babies Born (2005-2013)*	NAAT Testing of HIV-exposed Infants	Stocks Liquid AZT	Stocks Liquid NVP
University	3,557	9	5	Yes	Yes	Yes
University	2,780	33	14	Yes	Yes	Yes
Private	3,307	3	2	**No**	Yes	**No**
Private	14,789	5	6	Yes	Yes	Yes
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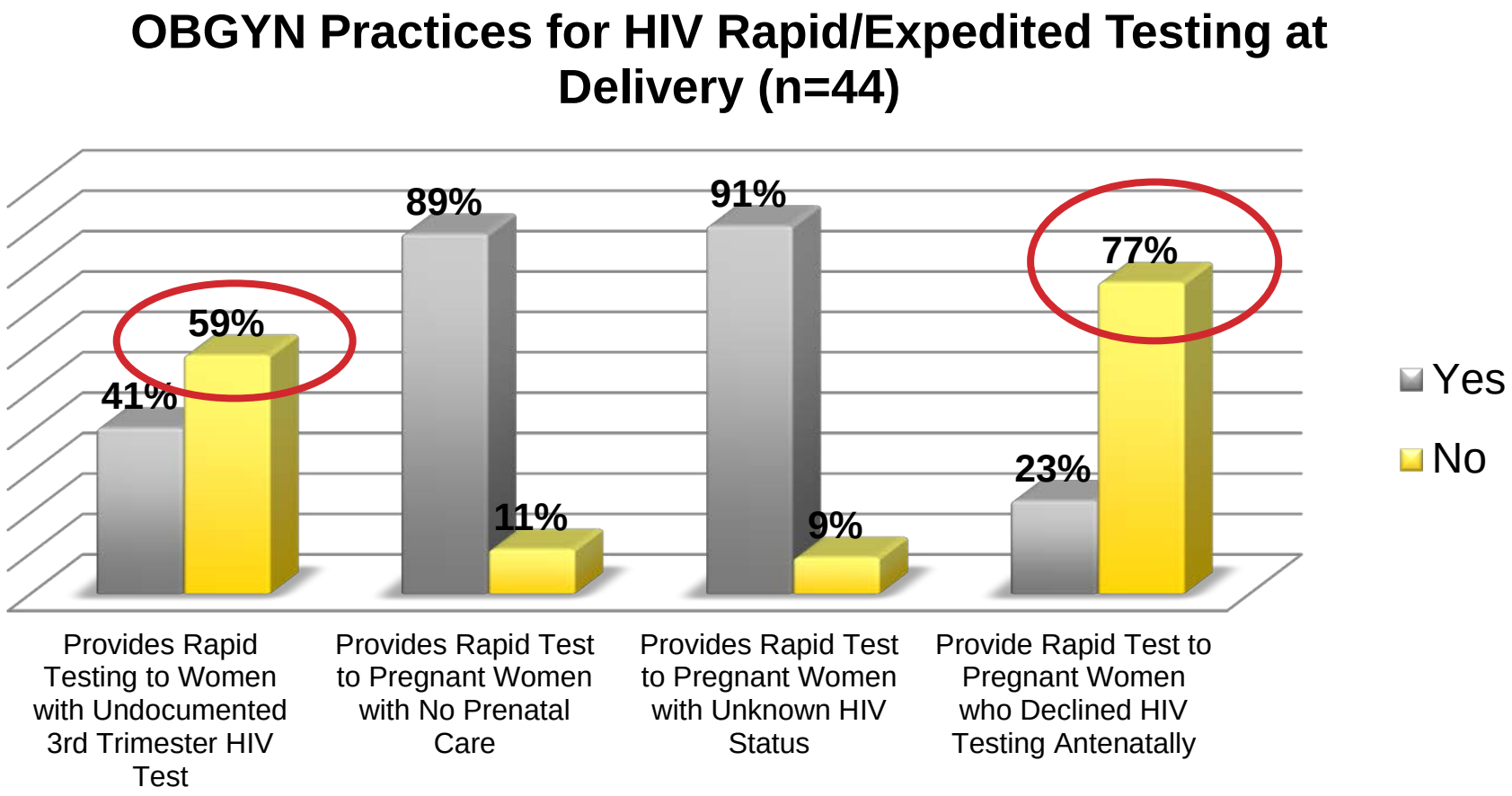
OBGYN Knowledge and Practices



Provider Knowledge and Practices

- Majority of obstetricians **(82%, 36/44)** administer IV AZT to all HIV-positive women if their most recent HIV viral load >1000 copies/mL or unknown/pending HIV RNA test near delivery, regardless of antepartum regimen or mode of delivery

- **75% (33/44)** of obstetricians continued to administer IV AZT for women receiving combination antiretroviral therapy with associated virologic suppression(≤ 1,000 copies/mL)

- **14% (6/41)** do not schedule C/S for women with VL > 1000 at 38 weeks gestation

Provider Knowledge and Practices

- **18% (n=13/71)** aware of the Perinatal HIV/AIDS Clinical Consultation Center Hotline
- **50% (8/16)** of neonatologists and neonatal nurses reported virologic diagnostic testing at birth for HIV-exposed infants at high risk of perinatal HIV transmission
- **33% (n=2/6)** and **50% (n=3/6)** of neonatologists did not identify correct dosing for AZT and NVP, respectively

Study Limitations

- Lack of systematic assessment of reasons for not implementing guidelines recommendations where applicable
- Survey respondents were a small convenience sample
- Findings may not be generalizable beyond AMSA
- Obstetric providers in the prenatal setting were not surveyed

Conclusions

- Lack of the following may perpetuate perinatal transmission of HIV-1 in Atlanta:
  - Routine rapid point of care at the time of delivery
  - Presence of standardized PMTCT policies and practices
  - Provider knowledge
  - Availability of NVP suspension
- The one hospitals fully adherent to the guidelines in 2015 may have become so because they had had a high number of HIV infected babies born between 2005 and 2013.

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