Gestational Diabetes Quality Improvement Strategies: Lessons Learned from the Chickasaw Nation Comprehensive Diabetes Center

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Presenter Disclosures

Adeline Meismer Yerkes, BSN, MPH

(1) "No relationships to disclose"

Acknowledgment of Chickasaw Nation Comprehensive Diabetes Team

- Bobby Saunkeah, BSN, CDE, Research and Epidemiology Department Manager
- Shon McGage, MPH, Diabetes Program Manager & Gestational Diabetes Project Coordinator
- Melissa Vavricka – Conaway, LD/RD, CDE Nutritionist
- Deborah Provence, RN, CDE, Nurse Manager

Purpose of Chickasaw Nation Project

Primary Outcome: Year 1 will determine continuity of care during and post pregnancy for women with Gestational Diabetes:

- **documentation of gestational diabetes screens conducted during pregnancies**
- **documentation of annual care which includes a blood glucose screen postpartum and during interconception**
- **documentation of care delivered by the Diabetes Center**

Purpose of Chickasaw Nation Project

Secondary Outcome: Years 2-3 determine if children of women with gestational diabetes are followed for diabetes risk.

- **Literature Review of Offspring Outcome of Women having experience GDM**
- **Documentation of Growth and Development of children**
- **Comparison with high birth rate children**
- **Comparison with morbidly obese women**

Purpose of Chickasaw Nation Project

Tertiary Outcome: Years 3-6 utilize the data results to develop quality improvement strategies to improve clinical operations and patient care

BOTTOM LINE: Reduce the burden of diabetes among Native peoples and their families by preventing diabetes in targeted populations.

Chickasaw Nation Project a Center of Excellence

The Team

- Bobby Saunkeah, Diabetes Program Manager
- Shondra McCage, GDM Project Coordinator & Physical Activity Specialist
- Deborah Provence, Nurse Manager
- Melissa Vavricka-Conaway, Nutritionist
- Adeline Yerkes, Women's Health Consultant

The Partners

- SHD Diabetes Prevention and Control Program
- SHD Vital Records
- CN Women's Clinic
- CN Comprehensive Diabetes Center
- CN WIC
- CN Pediatric Clinic
- CN Nursing Services
- CN Medical Records
- CN information Technology
- OUHSC

Chickasaw Nation Project Reporting of Gestational Diabetes

- Years 2000 through 2008 chosen for the comparison
- Compared RPMS reported GDM to State Vital Records and validated by medical record review
- Utilized code 648.8 as the condition code

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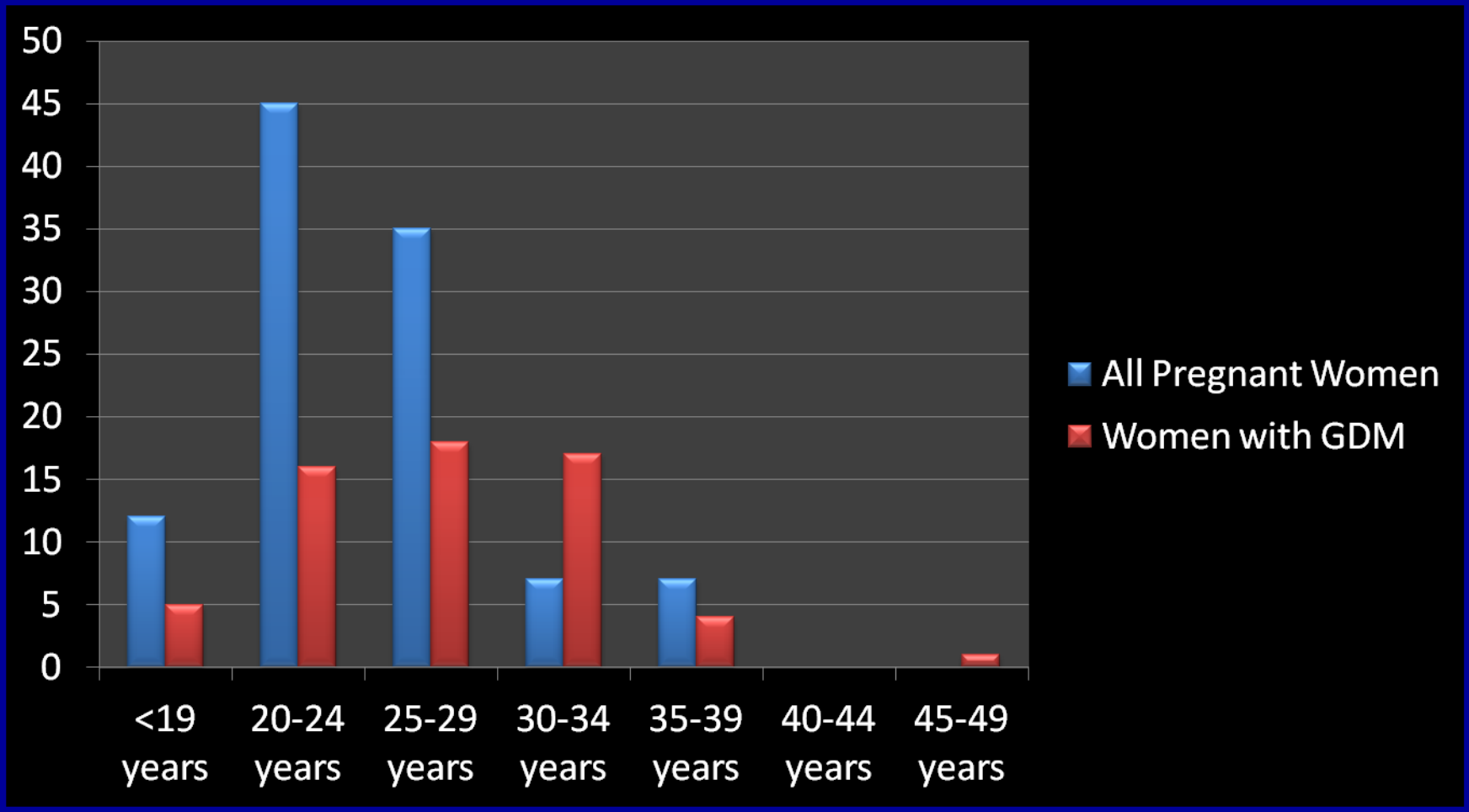
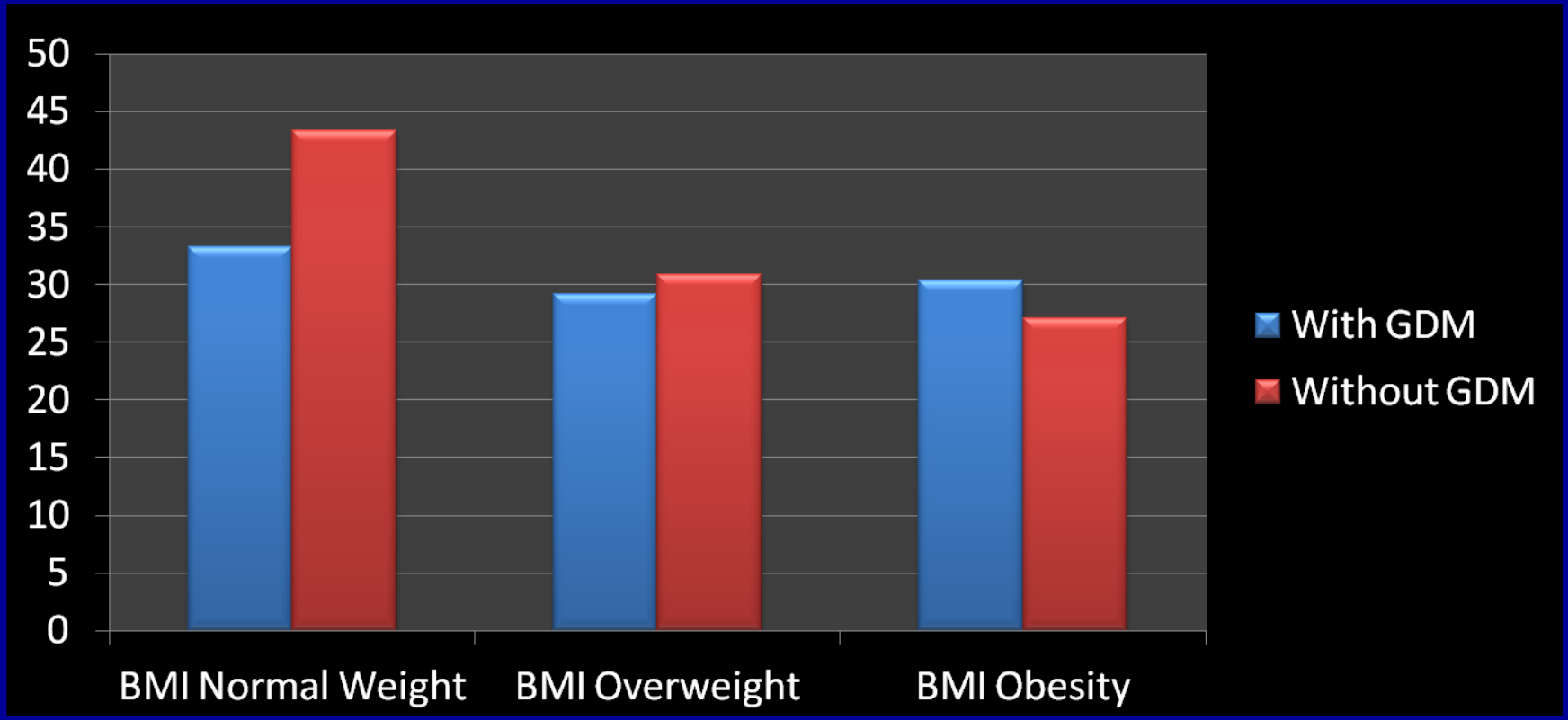
Age Distribution of Records Abstracted



Weight (BMI) Comparison of Women with and Without Gestational Diabetes



Diabetes and Pregnancy

- **Diagnosis of type 1 Diabetes before pregnancy: 3.1%**
- **Diagnosis of type 2 Diabetes before pregnancy: 8.9%**
- **Diagnosis of GDM: 9.6%**

  Previous GDM Diagnosis: 29.9%

Results

- Total of 95.2% of women received appropriate screening for GDM: 87.3% screened by 1 hr GTT ≤ 26 weeks of pregnancy and 7.9% random blood glucose value ≥26 weeks -36 weeks

- Determined that Women's Center conducted and documented appropriate Gestational Diabetes Screening

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Results

- Women were referred to the Comprehensive Diabetes Center for follow-up of their gestational diabetes and received services from the following disciplines
  - the Physician's Assistant
  - the Nutritionist
  - the Physical Activity Specialist
  - the Nurse Health Educator

- Determined that Comprehensive Diabetes Center provided appropriate services

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Results

- 65% of women with Gestational Diabetes had a post-partum visit
- Little to no documentation of diabetes risk counseling at postpartum visit
- Little to no documentation of weight maintenance or weight loss counseling during post partum visit
- Women seen on annual family planning visits rarely received the glucose screen

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The Quality Improvement Plan

- Increase the internal partners to study the health system effecting women with GDM and their offspring
- Change the Electronic Medical Record to include GDM elements

- Improve provider knowledge
- Improve referral systems with other tribal nations clinics

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The Quality Improvement Plan

- Study growth and development of GDM offspring
- Develop policies and procedures to improve clinical care
- Develop tracking system for GDM and the appropriate data elements
- Mentor tribes to improve GDM care
- Share results with others

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Where We Are Now

- Developed a work group of internal partners to review and improve the system

- Improved electronic medical record system with GDM data elements and implemented for hospital and clinics

- Implemented post-partum and diabetes center visits on same day to improve post-partum follow-up rates

Where We Are Now

- Implemented Alc as post-partum screen for GDM
- Implement random screen on first prenatal visit
- Conducted a growth & development study of GDM offspring and infants with birth weights of over 10 lbs.

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Where We Are Now

- Developed data system and collected 18 months of GDM data beginning 2009
- Shared the model with others
- Established partnership with two other tribes to improve their systems for GDM

A Call to Action

- How to interest providers along the continuum of care in educating young women with Gestational Diabetes and their offspring about their risk for developing type 2 diabetes

- How to interest young women having experienced Gestational Diabetes and their offspring to seek on-going care to prevent type 2 diabetes and to adopt healthier lifestyle behaviors

Thank you!