

# 2012 Webinar Series



Telehealth Technology Assessment Center

# Fetal Monitors



Technology Exploration

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# Definitions

# What is it called...

- ▶ Fetal Monitoring
  - Cardiotocography
  - Fetal Phonocardiography





# Technical Components

# Data Types

- ▶ Images
- ▶ Videos
- ▶ Signals
  - Cardiotocography
  - Doppler Ultrasound
  - External Uterine Pressure
  - Abdominal Wall Signals
  - Fetal & Maternal ECG
  - Fetal Phonocardiography



# Data Transmission Models

- ▶ Asynchronous
- ▶ Synchronous



# Wireless Data Transmission

- ▶ BAN–Body Area Network or OBN–On Body Network
- ▶ PAN– Personal Area Network
- ▶ WAN



# Wired Data Transmission

- ▶ POTS– Plain Old Telephone System
- ▶ ISDN– Integrated Services Digital Network
- ▶ Wired LAN– Local Area Network

# Data Storage

- ▶ Direct to EMR
- ▶ PACS
- ▶ Secondary software that interfaces with EMR
- ▶ Web Portals

# Useful Features...

- ▶ Waterproof
- ▶ Compatibility with various BMI amounts
- ▶ Can be used for multiple births
- ▶ Patient mobility not compromised
- ▶ Interfaces with existing hardware and software solutions



# 2012 Market Review

# Currently Available

- ▶ [Fetalgard Lite](#) Ante-partum monitor with and without maternal NIBP
- ▶ [Monica AN24](#) or [iBeacon](#)
- ▶ [Overseas Manufacturers](#)
- ▶ [Sense4Baby](#)
- ▶ [Avalon Cordless Fetal Transducer System](#) by Philips
- ▶ GE [Mini Telemetry System](#)

# How does this apply...



# Statistical Impact



# Uses in Telehealth...

- ▶ Antepartum health period





# Mobile Health – mhealth

- ▶ New products on the horizon
- ▶ Lowering costs
- ▶ Meet the patient at the point of need
- ▶ Data availability



# Security

- ▶ HIPAA
- ▶ Image Encryption
- ▶ Safe data storage practices
- ▶ Encrypted data transmission



# Resources & Standards

- ▶ [ATA –American Telemedicine Association](#)
- ▶ [NICHD](#) – National Institute of Child Health & Human Development
- ▶ [ACOG](#) – American Congress of Obstetricians and Gynecologists
- ▶ [AWHONN](#) – Association of Women’s Health, Obstetric, and Neonatal Nurses
- ▶ [ACNM](#) – American College of Nurse Midwives
- ▶ [2012 TTAC Literature Review](#)



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# Thank You



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