


Health Information Exchange (HIE): The Human Factors

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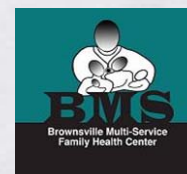
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Prenatal Use Case

- HEAL 5 Brooklyn CHITA: 9 community health centers adopting HIT and testing HIE proof of concept
- *Use Case* to demonstrate application of EHR HIE in clinical setting
- Partners:
 - Brownsville Multiservice Family Health Center (BMS)
 - Brookdale University Hospital & Medical Center
 - Primary Care Development Corporation (PCDC)
 - Brooklyn Health Information Exchange (BHIX)



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Building the Project Around Shared Goals

The Core Team:

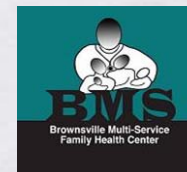
- Multidisciplinary clinician lead team: providers, IT, front line staff, administration, billing
- Project manager

The Extended Team:

- HIT Vendor(s)
- Regional Health Information Organization (RHIO)
- NY eHealth Collaborative – Statewide Collaborative Process

Shared Goals:

- Create a seamless system of patient delivery and communication between BMS and Brookdale
- Enhance the quality of patient care and staff experience (eliminate frustrations)
- Eliminate duplication of effort, increase productivity, streamline efficiency, and capture higher revenues
- Operate in a manner more conscious of the environment (i.e. use less paper)
- Increase patient confidence in the care they are receiving and encourage patients to take responsibility



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The Project Plan

- **Develop concept model**
- Establish timeframe: milestones, deliverables
- **Identify data elements to be exchanged**
- Assess current and future state workflows: patient, information
- **RHIO analyzes data elements and maps to HIE standards**
- Create interface specs for HIT vendor(s) and RHIO
- Review impact of new workflows: clinical, billing, general operations
- Develop training curricula
- Create test environment
- Test: interfaces, all workflows, operational processes, training traction
- **Pilot go-live**
- Confirm model



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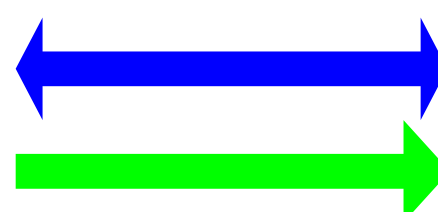
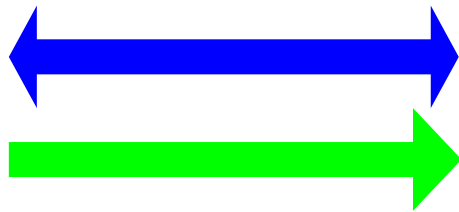
Prenatal Visit Today: *Linda Brownsville*



- **BMS - Pregnancy Confirmation Visit:** update demographic information, urine test, gyn exam, lab tests ordered, ACOG completed, vitamins, family history, blood work, HIV counseling, PCAP
- **Brookdale – Confirm Intrauterine Pregnancy:** ultrasound level 1
- **BMS – Regular Prenatal Visits:** bloodwork, vitals, urine, weight, fundal height, fetal heart
- **Brookdale – Confirm Healthy Pregnancy:** ultrasound level 2
- **BMS – Prenatal visits conclude:** Transcare transportation set-up for patient
- **Brookdale – Patient Presents for Labor & Delivery:** discharge information given to patient
- **BMS – Postpartum & Pediatric Visit**



Prenatal Use Case: Concept Model



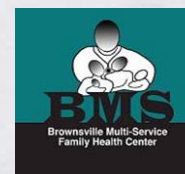
- Patient information batch sent to Brookdale at 24, 32, and 36 weeks
- Patients are pre-registered for delivery at Brookdale
- Sono and lab test results are available to BMS in real-time
- BMS can bill for sono and lab before Brookdale invoice arrives

- Provider has real-time access to complete patient information at delivery
- BMS is automatically notified of patient delivery
- BMS pediatrician notified to visit mom and newborn
- Follow-up visit at BMS scheduled by Brookdale at discharge

- Discharge report sent to BMS
- BMS & Brookdale facilitate continuity of care
- BMS & Brookdale coordinate on providing high quality patient care throughout pregnancy cycle into post partum

Shared Expectations & Measurable Outcomes

- Real-time sharing of patient information
- Coordination of treatment between provider teams
- Consistency of information in transitions (e.g., no duplication)
- **Full patient information available at delivery**
- Real-time notification of delivery
- **Retention of patients due to visibly higher quality of care**
- Recruitment of new pediatric patients (i.e., newborns)

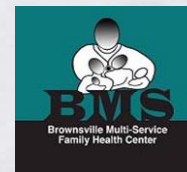


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Complications: Transformational Change is Required at Many Levels

Gaps between current state and desired outcomes:

- Patient information communication is unstructured
- Digital information is exchanged analog (printed EMR is faxed!)
- People infrastructure is not optimized for timely exchange of patient information
- Information ownership and hand-off roles are unclear
- **Burden of continuity of care is on the patient**

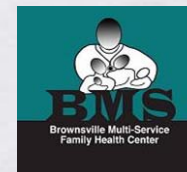


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Prenatal Pilot Today: Next Steps Toward Achieving Shared Goals



- ACOG standards to be analyzed by BHIX and mapped to HIE standards
- Facilitate NextGen and E&C to coordinate with BHIX
- Core team to meet regularly to design new provider and staff protocols
- Assign on-the-ground roles at both BMS & Brookdale



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